Introduction

The following curriculum was created for Syringa Mountain School (SMS) based on the curriculum taught in traditional Waldorf schools. A few changes have been made to the traditional private Waldorf school curriculum in order to stay true to the mission and vision of SMS. Other differences are minor and have been included in order to meet the Common Core Standards.

The curriculum is presented by grade level and by block or unit of study. Each grade begins with a listing of the blocks to be taught that year and is followed by an overview of what children are like at that particular age and gives the reader a short introduction to that phase of child development. A brief summary of the block follows. Next the Common Core Standards and/or the Idaho State Standards are listed. These are the standards that will be met during the unit of study. Then the blocks are broken down by weeks. Suggestions for how and what to teach each week are given. Finally, a list of teacher resources round out the block.

The curriculum by no means is meant to be followed exactly. It is a guide and a resource. Should the teacher wish to bring the unit of study to her class in a different way, it would be perfectly fine as long as the standards were met and the teaching methodology was developmentally appropriate.

It should also be noted that the curriculum is a working document and it is expected that it will evolve over time.

Thank you to Dr. Mary Goral and Tomorrow River Community Charter School for their work creating this curriculum and for allowing us to use this resource.

First Grade

First Grade Block Rotation

1st Grade (Blocks are 4 weeks long)

- Form Drawing
- Reading, Phonics and Writing through Fairy tales
- Quality of Numbers/Number Sense
- Reading, Phonics and Writing through Fairy Tales
- 4 Processes
- Class Play (Drama)
- Reading, Phonics, and Writing through Fairy Tales
- Basic Facts to 100 (all 4 processes)

Overview of First Grade Curriculum

The first grade child is quite ready to undertake the tasks of literacy development and mathematical reasoning. As the child enters first grade, literacy development comes more clearly into focus through the language arts curriculum. Instruction centers around storytelling, particularly the archetypal fairy tales, which will develop the child's growing capacity for writing and reading. Listening and speaking is deepened by daily circle activities, as well as through the recall and retelling of stories. Children also practice balance, handedness, directionality and precision in the gross motor movements while reciting poems, rhymes, and songs during the morning circle. Writing arises from drawing and from the practice of the alphabet as a combination of the straight and curved lines. Much care is taken in the initial stage of writing to prepare the children for success. Penmanship, recognition and distinction of letters, words, and sentences, are all emphasized. Games that encourage concepts of print, visual tracking, matching oral and printed words and phonemic awareness are introduced and assessed formatively to help guide instruction. Students become increasingly capable of writing and reading high frequency words as the first grade year progresses. The teacher presents the study of these words in the context of compelling and age-appropriate stories. This work is done during the main lesson as well as practice periods. Mathematics is taught from the whole to the part and is brought to the students through imaginative storytelling. Students also use art, movement, music, mental games, and manipulatives to help create a learning context for the understanding of numeric concepts. The four processes are taught by the personification of each sign (i.e. Perceival Plus, Moira Minus, Tamara Times, and Duke Demi Divide). By adding feeling and emotion to the mathematical processes, children can better relate to these abstract concepts. Science concepts are taught through nature studies and by immersing the children in the outdoors. First grade is a time for children to explore in all aspects of the curriculum.

First Grade – Form Drawing

The first block of first grade traditionally focuses on form drawing – the straight line and the curved line. Now that students are in the first grade, they should have developed a "coordination of the balance and movement senses" (Embrey-Stine & Schuberth, 1999, p. 1). The straight line actually has a connection with the uprightness of the child and the child's ego where as the curved line has a softer feeling and is more connected with the environment. All things learned in school, from reading letters and numbers to writing algorithms and essays stem from the straight and curved line. Although it may seem like a simple concept, it is actually quite profound and students will take this first block seriously, as they will sense the innate importance of it. In addition to practicing the straight and curved line, students will hear stories, sing songs, be introduced to their pentatonic flute, learn the routine and rules of the classroom, and generally begin to get used to being a student in the first grade and building a community. Learning the pentatonic flute in the first grade supports the child's growth in many ways. Holding the instrument at the vertical midline while right and left hands function independently, strengthens neural pathways leading to dominance. Children practice balance, handedness, directionality, and precision in the gross motor movements while reciting poems, rhymes, songs, and stories. Many of the activities in the first grade and in this first block set the tone for building a community of learners – from playing flutes together to moving in tandem in the circle, this first block sets the tone for the year and it is imperative that teachers establish a strong routine from the very beginning. First graders are eager to learn new things and take on new responsibilities, so giving them jobs is also key to their feeling "grown-up".

Common Core Standards:

Reading Literature

Key Ideas and Details

1. Ask and answer questions about key details in a text. *
2. Retell stories, including key details and demonstrate understanding of their central message or lesson.
3. Describe characters, settings, and major events in a story, using key details.

*These standards will apply to stories that the teacher tells the children.

Craft and Structure

4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. **
6. Identify who is telling the story at various points in a text.

**This standard will be met in grade 2

Integration of Knowledge and Ideas

7. Use illustrations and details in a story to describe its characters, setting, or events.
8. Compare and Contrast the adventures and experiences of characters in stories.

Speaking and Listening Standards
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
    c. Ask questions to clear up any confusion about the topics and texts under discussion.
2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Presentation of Knowledge and Ideas

4. Describe people, places, things and events with relevant details, expressing ideas and feelings clearly.
5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 for specific expectations.)

Language Standards
Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Print all upper- and lowercase letters.
    b. Use common, proper, and possessive nouns.
    c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*).
    d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*).
    e. Use verbs to convey a sense of past, present, and future (e.g., Y*esterday I walked home; Today I walk home; Tomorrow I will* walk home).
    f. Use frequently occurring adjectives.
    g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*).
    h. Use determiners (e.g., articles, demonstratives).
    i. Use frequently occurring prepositions (e.g., *during, beyond, toward*).

Week One:

Begin the morning lesson with a well-crafted circle (following the greeting, morning verse, attendance) that has a lovely balance of songs, poems, movement, all of which contain feelings that span the range of happy and sad, serious and silly. Even in the morning circle, there is a breathing in and breathing out, a certain rhythm, that appeals to the child's sense of well-being. The teacher can then introduce the pentatonic flute This is a very important exercise and if the teacher wants to wait on this, that is understandable. Following the circle, begin with a story that contains something that will portray the straight line and the curved line. Nate Straight and Coco Curve is a story about two people who met while ice skating. Nate was thin and very straight and proper and only skated in straight lines, while Coco was beautiful and curvy, and loved to skate in circles and curves. This is just an example of a story theme that holds the images the teacher should portray. After hearing the story, students should move the parts, possibly in a "follow the leader" type of activity. Finally, the will draw the straight line in the air and will do this until the teacher believes they are ready to put this down on paper. The book "Form Drawing Grades One Through Four" by Laura Embrey-Stine and Ernst Schuberth, has a step-

by-step introduction to the block. After the children have practiced the line a number of times, they do the same with the curved line. The idea is to get the children to practice until they reach a "certain perfection", which according to Steiner is desirable. The teacher can end the main lesson with a story. This can be the rhythm for the first week of the block. (although make sure to review the previous day's work each day)

Week Two:

The second week follows the rhythm of the first week, with the circle first, flute practice next, followed by a review. Then the teacher can tell a new story that holds the image of the circle. Again, have students walk the circle, draw it in the air, etc. Making a circle freehand will not be easy for the children. They must practice it many times before putting it on paper. As the week goes on, students can work on concentric circles, spirals, and lemniscates (or figure 8s). As in the first week, end the morning lesson with a story.

Week Three:

At this point the teacher can decide if she wants to add another week to this block or move on to the first math block or the first language arts block. IF the teacher does decide to do one more week of form drawing, follow the rhythm of the previous two weeks, and then work with the children to see if they can see how a figure changes when its curves are changed to straight lines. This is also all in the form drawing book mentioned above.

Songs, Poems, and Movements

Seasonal songs and dances

Teacher Resources:

Form Drawing

Laura Embrey-Stine and Ernst Schuberth, *Form Drawing Grades One Through Four*

Songs and Poems

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
7. Fitzjohn, Suc, Judy Large and Minda Weston, *Festivals Together*
8. Haren, Wil van and Rudolf Kischnick, *Child's Play 1 and 2*
9. Haren, Wil van and Rudolf Kischnick, *Child's Play 3*
10. Heider, Molly von, *Looking Forward*
11. Jones, Betty, *A Child's Seasonal Treasury*
12. Lebret, Elisabeth, *Shepherd's Songbook for grade I, II and III of Waldorf Schools*
13. Lonsky, Karen, *A Day Full of Song*
14. Masters, Brien, *The Second Waldorf Songbook*
15. Slayton, Tamara, *The Little Cycle Celebration Book*
16. The Society of Brothers, *Sing through the Seasons*
17. Willwerth Kundry, *Let's Dance and Sing*

First Grade - First Math Block

Many first graders will already know their numbers, yet this first math block is a wonderful way to teach the children the quality of numbers and to give them a real sense for the numbers they will be working with. Steiner gives an example of a beginning math lesson for first graders in (check this) chapter 5 of "Kingdom of Childhood". He suggests that teachers begin by asking children what they might have "one" of – i.e., one nose, one mouth, or what there is "one" of in the world – i.e. one sun, one moon. He then shows a stick and uses it as an example of the number one (both as one stick and as the Arabic numeral one and the Roman numeral one). This chapter shows teachers how they can arrange their block. Children should know how to write all of their numerals by the end of the 4 weeks. In addition to teaching the numbers 1-10, teachers can also work on other aspects of number sense to ensure children are where they need to be in their mathematical understanding. By this point they should know how to count to 20, have one-to-one correspondence, and know that the number they end with when counting is the number of objects in a group. They should be able to recognize that a group of 20 gems is larger than a group of 5 gems and be able to use the terminology "more than" and "less than". If the children appear ready, continue on with the numbers from 20-100. Show them the pattern of the numbers, how they are written, how they are recited, etc.

Common Core Standards:

Number and Operations in Base Ten

1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
    a. 10 can be thought of as a bundle of ten ones — called a "ten."
    b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
    c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).

Counting and Cardinality (Kindergarten Standards)

Know number names and the count sequence

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number.
3. Write numbers from 0 to 20. Represent a number of objects with a numeral.

Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
    a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
    b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
    c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
7. Compare two numbers between 1 and 10 presented as written numerals.

Week One:
Begin the block with a morning circle made up of number activities and verses as well as seasonal songs and poems. "A Journey Through Time in Verse and Rhyme" has an excellent selection of number verses that exhibit the quality of numbers. Introduce the block by using the suggested sequence of activities in the above mentioned introduction. The idea for the first week will be to introduce and practice the numbers 1-5. The teacher can begin with a story that exhibits the value of the number. For example, when introducing the number 5, the teacher could find a story about apples, cut the apple in half to reveal the 5 seeds that form a star, and have the children draw the apple and the number 5. This would of course be in addition to talking about what is 5, where do they find 5 in their lives (5 fingers, 5 toes), etc. Children can practice counting objects and working with grouping during this week as well.

Week Two:
Continue with the same circle. Make sure to do LOTS of counting during the circle. Count the number of children in the class, count shoes or feet, count noses, etc. Review last week's content and move on to the numerals 6-10. Use the same referenced introduction. Present the numbers with stories and make sure to keep the quality of the number at the forefront. Have the children practice writing the numerals and counting objects. Group objects in the traditional recognizable groups. i.e. group 7 as 3 and 4, 5 and , 1 and 6. This prepares the children for the basic math facts that will follow later in the year. Put the drawings in the main lesson book.

Week Three:
This week you will introduce the "teens" numbers and work with the numerals 11-20. Use the same circle but perhaps add a new song or poem. When introducing the "teens", you will also be talking about place value (tens and ones). Use manipulatives/concrete objects when introducing the concept of place value. But as always, introduce the concept through imaginative stories. Have the children practice using a variety of manipulatives, such as base 10 blocks, gems, and coins, to name a few. Students should work on counting, writing the numerals, representing the number with objects, grouping the number, and finding comparisons (greater than, less than). Remember to include artistic work with this block, such as drawings from the stories, beautiful drawings of the numerals, etc.

Week Four:
If the teacher feels the children are ready for this, continue on with the introduction of numbers. If the teacher believes the children need to wait on the numbers 21-100, then wait until later in the year. If they are ready for it, continue with the circle, but count higher and count by 10s. Work with the numerals and find the pattern of how they are written by using the 100s chart. Practice writing the numerals, but continue with presenting the quality of the numbers so children have a sense of what 20 is, what 30 is, what 100 is. Use stories and creativity to bring this to the children.

Teacher Resources:
Math

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*

7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Van de Walle, John, Karp, Karen, and Bay Williams, Jennifer, *Elementary and Middle School Mathematics: Teaching Developmentally*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

First Grade – Language Arts

First grade consists of language arts blocks and math blocks, with blocks on form drawing, nature studies, and the class play added in. First graders are eager to learn and if they have entered school after being in a Waldorf-inspired kindergarten, they will be chomping at the bit to learn their letters and to then to learn how to read. The forming forces that helped build their physical bodies are now released and are there to help children learn academics. However, the academic subjects must be presented in an imaginative manner in order to meet the children where they are developmentally. Following the recapitulation of the development of the human being, the first grader learns letters through story and pictures. The "letter stories", as they are commonly referred to in Waldorf circles involve an imaginative story out of which a picture of the letter comes. For example, the children might be told the story of the golden goose. The teacher will use many words in the story that start with "g", such as the golden, gleaming, glittering goose…. After the telling of the story, the teacher will draw a goose, out of which the letter "g" will emerge. The letter "m" might be included in a story about a mountain and the letter "k" in a story about a king. The language arts block will consist of teaching the vowels (feeling letters) and the consonants (forming letters). It is up to the teacher which letters she would like to introduce in each block. Some common ones to begin with are G, B, M, K, C, D, S, P, F, and T. Some teachers like to start with the vowels, while others want to start with the consonants. Teachers can introduce two letters per week through story and guided drawings. The goal is to get through all of the letters and some letter blends by the end of the year. Some sources suggest introducing the capital letter first, then later in the year, bring in the lower case letters, while others believe both can be taught simultaneously.
NOTE: The language arts blocks will all follow the same format. The three blocks are included in one write-up, which is below.

Common Core Standards

Reading Literature

Key Ideas and Details

1. Ask and answer questions about key details in a text. *
2. Retell stories, including key details and demonstrate understanding of their central message or lesson.
3. Describe characters, settings, and major events in a story, using key details.
4. *These standards will apply to stories that the teacher tells the children

Craft and Structure

5. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
6. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. **
7. Identify who is telling the story at various points in a text.
8. **This standard will be met in grade 2

Integration of Knowledge and Ideas

9. Use illustrations and details in a story to describe its characters, setting, or events.
10. Compare and Contrast the adventures and experiences of characters in stories.

Range of Reading and Level of Text Complexity

11. With prompting and support, read prose and poetry of appropriate complexity for grade 1.

Reading Standards for Informational Texts

This will be met in grade 2

Reading Standards: Foundational Skills
Print Concepts

1. Demonstrate understanding of the organization and basic features of print;
    a. Recognize the distinguishing features of a sentence (e.g. first word, capitalization, ending punctuation).

Fluency

2. Demonstrate understanding of spoken words, syllables, and sounds (phonemes).
    a. Distinguish long from short vowel sounds in spoken single-syllable words.
    b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends.
    c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words.
    d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).

Phonics and Word Recognition ***

3. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Know the spelling-sounds correspondences for common consonant digraphs.
    b. Decode regularly spelled one-syllable words.
    c. Know final –e and common vowel team conventions for representing long vowel sounds.
    d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
    e. Decode two-syllable words following basic patterns by breaking the words into syllables.
    f. Read words with inflectional endings.
    g. Recognize and read grade-appropriate irregularly spelled words.

***This standard will begin in grade 1 and will be completed in grade 2
Fluency******

4. Read with sufficient accuracy and fluency to support comprehension.
    a. Read on-level text with purpose and understanding.
    b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
    c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

******This standard will be met in grade 2

Writing Standards for grade 1 will be met in grade 2. First graders will meet the Kindergarten writing standards, listed below.

Writing Standards (K)
Text Types and Purposes

1. Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or name of the book they are writing about and state an opinion or preference about the topic or book.
2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

3. Use a combination of drawing, dictating and writing to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred and provide a reaction to what happened,

Production and Distribution of Writing

4. With guidance and support from adults, respond to questions and suggestions from peers and add details to strengthen writing as needed.
5. With guidance and support from adults, explore a variety of digital tools to produce ad publish writing, including in collaboration with peers.

Research to Build and Present Knowledge

6. Participate in shared research and writing projects.
7. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Speaking and Listening Standards
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
    c. Ask questions to clear up any confusion about the topics and texts under discussion.
2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Presentation of Knowledge and Ideas

4. Describe people, places, things and events with relevant details, expressing ideas and feelings clearly.
5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 for specific expectations.)

Language Standards
Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Print all upper- and lowercase letters.
    b. Use common, proper, and possessive nouns.
    c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*).
    d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*).
    e. Use verbs to convey a sense of past, present, and future (e.g., Y*esterday I walked home; Today I walk home; Tomorrow I will* walk home).
    f. Use frequently occurring adjectives.
    g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*).

   h. Use determiners (e.g., articles, demonstratives).
   i. Use frequently occurring prepositions (e.g., *during*, *beyond*, *toward*).
   j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. *****
   a. Capitalize dates and names of people.
   b. Use end punctuation for sentences.
   c. Use commas in dates and to separate single words in a series.
   d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.
   e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.

*****The majority of this standard will be met in grade 2.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 1 reading and content*, choosing flexibly from an array of strategies.
   a. Use sentence-level context as a clue to the meaning of a word or phrase.
   b. Use frequently occurring affixes as a clue to the meaning of a word.
   c. Identify frequently occurring root words (e.g., *look*) and their inflectional forms (e.g., *looks*, *looked*, *looking*).
5. With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.
   a. Sort words into categories (e.g. colors, clothing) to gain a sense of the concepts the categories represent.
   b. Define words by category and by one or more key attributes (e.g. a duck is a bird that swims; a tiger is a large cat with stripes).
   c. Identify real-life connections between words and their use (e.g. notes places at home that are cozy).
   d. Distinguish shades of meaning among verbs differing in manner (e.g. look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g. large, gigantic) by defining or choosing them or by acting out the meanings.
6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships. (e.g. *I named my hamster Nibblet because she nibbles too much because she likes that).*

Week One:

During this first week, start with a morning circle that includes a number of songs and poems that feature words that have the letters which will be introduced in the block. Poems and songs can be seasonal. After the circle, the teacher will begin by telling the students a story. The stories are either fairy tales that include the letter being taught (i.e. "The Golden Goose") or if the teacher creates the story, it should be one that has the flavor of a fairy tale. After the story, the teacher should lead the children in a guided drawing of an image from the tale. The drawing should go into their main lesson books. On the second day, students will review the story by retelling it, acting it out, drawing their favorite part, etc. The teacher normally tells the story again. Then the guided drawing features a goose (if that is the story) that is a bit thinner and is beginning to look more like the letter "g". On the second day toward the end of the main lesson, teachers can introduce a second story that holds another letter. The next day the teacher can review the new story and work on a very skinny goose that now looks like a G as well as a guided drawing from the second story. By the end of the week, students will have heard

two stories and worked on two letters. They can practice writing their letters and can also practice writing words from the story and from their poems and songs.

Week Two:
Week two begins again with the same circle with perhaps a new song or poem added in. The teacher will then lead the children through a review of last week's stories and will then introduce a new story with a new letter. They will then do another guided drawing and can practice their letters from the previous week. As the week continues, the teacher will tell at least one more story and introduce one more letter that emerges from first a picture/image from the story and then turns into the letter. Students should practice writing words from their circle songs and poems or words from the story that contain the letters they have learned. Pictures, letters, and words should all go into the main lesson books.

Weeks Three and Four:
The rhythm of the first two weeks should continue. Make sure to find stories for the letters that speak to you, the teacher and also that meet the needs of your children. Do they need the fairy tales where the wolf eats Grandma? Or do they need a slightly tamer version? Pay attention to the archetypes that the stories hold. Review the previous day's story using different strategies and use either a two-day or three-day rhythm with the stories. (tell the story on day one, review it on day two, review it again on day 3 OR tell a new story on day 3) Your class will let you know if they need more time learning the letters, their shape and sound. Students should practice writing the letter and also writing words that start with the letter, especially if they know how to form the other letters in the word. They can practice reading the words that they write as well. Letter pictures should continue to be entered into the children's main lesson books and the guided drawings can be a focus of the main lesson.

Teacher Resources
Music

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
7. Fitzjohn, Suc, Judy Large and Minda Weston, *Festivals Together*
8. Haren, Wil van and Rudolf Kischnick, *Child's Play 1 and 2*
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12. Lebret, Elisabeth, *Shepherd's Songbook for grade I, II and III of Waldorf Schools*
13. Lonsky, Karen, *A Day Full of Song*
14. Masters, Brien, *The Second Waldorf Songbook*
15. Slayton, Tamara, *The Little Cycle Celebration Book*
16. The Society of Brothers, *Sing through the Seasons*
17. Willwerth Kundry, *Let's Dance and Sing*

Language Arts

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*

5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Gillard, Marni, *Story Teller Story Teacher*
11. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
12. Heider, W. M. Von, *And then take Hands*
13. Holbook, Sara, *Practical Poetry*
14. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
15. King, Nancy, *Storymaking and Drama*
16. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
17. Koch, Kenneth, *Rose, where did you get that red?*
18. Les Parsons, *Expanding Response Journals in All Subject Areas*
19. Martin, Michael, *The Little Series; St. Martin*
20. Matthews, Paul, *Sing Me the Creation*
21. McAllen, Audrey E., *Teaching Children to Write*
22. Mellon, Nancy, *Storytelling and the Art of Imagination*
23. Miller, Debbie, *Reading with Meaning*
24. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
25. The National Storytelling Association, *Many Voices; True Tales from America's Past*
26. The National Storytelling Association, *Tales as Tools*
27. Peckham, Margaret, *Fairy Tales*
28. Perrow, Susan, *Healing Stories for Challenging Behaviour*
29. Publications International, LTD., *Classic Children's Stories*
30. Rose, Michael, *Living Literacy*
31. Rubright, Lynn, *Beyond the Beanstalk*
32. Wilkinson, Roy, *Teaching English*
33. Wynstones Press, *Autumn; Poems, Songs and Stories*
34. Wynstones Press, *Gateways; Poems, Songs and Stories*
35. Wynstones Press, *Spring; Poems, Songs and Stories*
36. Wynstones Press, *Summer; Poems, Songs and Stories*
37. Wynstones Press; *Winter; Poems Songs and Stories*
38. Zaid, Gabriel, *So Many Books*

First Grade – The Four Processes

First grade children should be introduced to the four processes through personification and imagination. Because they live in the imagination, it is important to bring the concepts of addition, subtractions, multiplication, and division to the children through story. Each of the four processes can be personified and connected to the four temperaments. Addition is phlegmatic, subtraction melancholic, multiplication sanguine, and division choleric. The characters in the stories then have that personality. Dorothy Harrer's book (listed in the teacher resources) has some nice examples of stories for the four processes. However, it is even more meaningful if the teacher can create her own stories, as they are coming from her heart and soul. Children should practice the basic facts for addition and subtraction up to 100 and worked on multiplication and division facts, including the 1s, 2s, 5s, and 10s. Multiplication will be introduced through skip counting and division should be presented as the opposite process from multiplication. .The basic facts should be taught through rhythm and movement, story, imagination, color and song. Because first grade students have not yet reached the place where they can differentiate themselves from the world, the four processes should be taught together as a whole. Each of the processes must be introduced from whole to part. For example, when working with an addition problem, begin with the total. I have 20 gems in this pile – what might I add together to get this? Or when reciting the multiplication tables, say the product first –e.g. 3 is 1 x 3, 6 is 2 x 3, etc. When teaching subtraction, Steiner suggests approaching it from the perspective of "giving away" as opposed to "taking away", so as to bring in a moral quality. Chapter 5 in Steiner's "Kingdom of Childhood" provides an excellent guide for teaching the basic facts. It is important to include mental math in this unit as well.

Common Core Standards

Math

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract.3 *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)*
4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing

a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).

Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.*
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 +? = 11, 5 = □ – 3, 6 + 6 = □*

Week One:
The best resource for creating the circle is "A Journey Through Time in Verse and Rhyme". There are several number verses and the classic "Number Family" is perfect for teaching skip counting, a precursor to multiplication. Addition, subtraction, and division poems and songs should be included as well and the teacher can easily make up chants for these processes. Games for circle can be found in "Active Arithmetic". Also, seasonal poems and songs should be included. Following the circle, the teacher can bring in mental math. Then, begin with a story that has all four processes involved. If the teacher tells a story that includes all four processes, students can be introduced to each process in a holistic manner. After the story, students can make a work mat that has all four processes on it (+ in one corner, - in another, etc.) The teacher can work with short little problems from the story and have the children move gems around to represent the problem. Go from the concrete to the semi-concrete (i.e. pictures of gems) to the abstract. The abstract is the written algorithm. Algorithms in first grade are written horizontally. Students can put pictures of the word problems in their main lesson books along with written problems. The next day students should review the story and the teacher can tell another story, this time bringing to life one of the processes. Often times teachers dress up like the process and pay a visit to the class. Practice again with problems using the basic facts. At this point, the teacher can begin concentrating on the basic facts of addition. Work on fact families and learning the inverse of a problem. Use manipulatives first, then go to the abstract. Put pictures of problems and the number sentences in their main lesson books.

Week Two:
Continue with the same circle. Follow the circle with mental math. Then review the work from last week. Begin with another story of one of the processes (subtraction or multiplication). Each day review the story from the previous day, then add more to the story. Follow the story with practice work. If subtraction is chosen, then make sure to relate subtraction to addition (as the opposite process) and work through the fact families. Use manipulatives and short story problems that relate to the main story. Try different manipulatives to hold children's interest. Two color counters are great as are unifix cubes. Marilyn Burns has a number of resources that give interesting ways to teach children the basic facts. Following the practice work, do some artistic work in the main lesson book.

Week Three:
Add something new to the circle to keep the children's interest. Bring in mental math next and make sure to use different strategies when doing mental math. Review last week's work, and begin with a new story. If the teacher told a story about subtraction last week, then multiplication would be told this week. Use the same pattern as last week and add to the story each day. Work with the 2s, 5s, and 10s. Use skip counting, repeated addition, and arrays to teach the multiplication facts. Show the children arrays with manipulatives and by coloring graph paper. After the practice work, put pictures and problems in the main lesson book.

Week Four:
Bring in something about division into the circle. After the circle, continue with mental math. Review last week's work, then tell a new story, this time of division. Remember to dress up as the character if that is "doable". Practice division problems and present division as the opposite of multiplication or repeated subtraction. Use manipulatives and word problems to get the concept down. After practicing, put pictures and problems in the main lesson book.

Songs:
Seasonal Songs
Inchworm
3-6-9
The Ants Go Marching

Poems:
The Number Family
Seasonal Poems

Teacher Resources:

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Van de Walle, John, Karp, Karen, and Bay Williams, Jennifer, *Elementary and Middle School Mathematics: Teaching Developmentally*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

First Grade – Play Block

Children in first grade are in the age of imitation. They do not yet have a strong desire to make a distinction between themselves and the world. Thus the first grade play is really more about the whole class participating in rhythmical repetition rather than individual children taking on solo performances. The teacher may, however, choose to have some children speak a short verse alone, but this is not necessary. The content of the play will be something chosen from the curriculum, most likely a fairy tale that the children act out. The play block is really a language arts block, so many of the goals of first grade language arts can be met during this block. The class play is also a time to really build classroom community and social skills. Speaking together chorally helps children develop their listening skills and their response to "the other". First graders can also add singing to their play as well as flute playing. All in all, the play block is a wonderful time to come together as a group and create something equal to or greater than the sum of all the parts. Note: Most first grade class plays are performed in their classroom for a small number of guests, rather than in front of the entire school.

Common Core Standards

Reading Literature

Key Ideas and Details

1. Ask and answer questions about key details in a text. *
2. Retell stories, including key details and demonstrate understanding of their central message or lesson.
3. Describe characters, settings, and major events in a story, using key details.

*These standards will apply to stories that the teacher tells the children

Craft and Structure

4. Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.
5. Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types. **
6. Identify who is telling the story at various points in a text.

**This standard will be met in grade 2

Integration of Knowledge and Ideas

7. Use illustrations and details in a story to describe its characters, setting, or events.
8. n/a
9. Compare and Contrast the adventures and experiences of characters in stories.

Speaking and Listening Standards
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges.
    c. Ask questions to clear up any confusion about the topics and texts under discussion.

2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

Presentation of Knowledge and Ideas

4. Describe people, places, things and events with relevant details, expressing ideas and feelings clearly.
5. Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 for specific expectations.)

Language Standards
Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Print all upper- and lowercase letters.
    b. Use common, proper, and possessive nouns.
    c. Use singular and plural nouns with matching verbs in basic sentences (e.g., *He hops*; *We hop*).
    d. Use personal, possessive, and indefinite pronouns (e.g., *I, me, my; they, them, their; anyone, everything*).
    e. Use verbs to convey a sense of past, present, and future (e.g., Y*esterday I walked home; Today I walk home; Tomorrow I will* walk home).
    f. Use frequently occurring adjectives.
    g. Use frequently occurring conjunctions (e.g., *and, but, or, so, because*).
    h. Use determiners (e.g., articles, demonstratives).
    i. Use frequently occurring prepositions (e.g., *during, beyond, toward*).

Week One:

The best way to teach children the play is to introduce it in the morning circle. The choral play parts can be learned and memorized in this group/social setting. The songs can be learned during this time as well. After the circle, children can practice their flute, and these songs can also be part of the play. The teacher can then tell the children the story that the play is based on. The kids can then begin to explore different aspects of the play. They can do guided drawings from major parts, and of course retelling in a number of ways, including acting it out. After the initial telling of the story, the teacher can have the children practice their reading and writing by taking particular pieces (ones they are memorizing in circle) and asking the children to copy these in their main lesson books and to also read them. Any aspect of language arts that the teacher wants the children to practice, (consonant blends, punctuation, sight words) can be worked into this block.

Week Two:

By this time the children will have memorized a number of the parts of the play through practice in the morning circle. If additional parts need to be added, this is the perfect time to do so. The same holds true with the flute pieces. After the circle and flute practice, the teacher might want to tell another story similar to the one the play is based on or she can retell the same story. Whatever the teacher chooses to do, the task for the children is to work on their play parts from all angles – drawing scenes, writing parts, reading parts, etc. Again, use this time to practice and work on language arts skills that the students need to experience during first grade.

Week Three:

After the morning circle and flute practice, the teacher should begin actual play practices this week. Each day the class should run through the entire play. The teacher might also want the children to paint or draw backdrops (scenery) for the play. By the end of the week they will perform the play for other classes, family and friends (preferably in their classroom).

Teacher Resources:

1. Schwartz, Eugene, *Plays for Children and Communities*
2. Ward, William, *Hawthorne Valley Harvest; A Collection of Plays for the Elementary Grades*

Second Grade

Second Grade Block Rotation

- Fables and Legends
- 4 Processes
- Form Drawing, Geometry, and Cursive Writing
- Place Value and Higher Level Algorithms
- Story Problems and Problem Solving
- Class Play (Drama)
- Higher Level Algorithms II
- Legends and Folklore of Heroic People from Around the World
- Class Trip

Second Grade Curriculum Overview

In second grade, a greater understanding of word analysis and academic language is available to the child. Storytelling and metaphor provide the framework for the Language Arts curriculum, as the teacher engages the students' avid interest through stories that support the social and emotional development of the 7-8 year old child. Kindness, courage, and generosity, the highest endeavors of human nature are conveyed through stories of heroes and heroines, who are revered as "shining hearts". The opposite tendencies of human nature such as greed, selfishness, and laziness are represented in the telling of fables and myths. The child sees light and dark, goodness and evil, mirrored in examples from this core literature. Reading instruction emphasizes writing as a gateway to unlocking the meaning of sound-symbol relationships within words. In the study of mathematics, students work through the concepts of place value, the beginning of higher level algorithms, and the memorization of basic facts through movement activities and a whole-to-part process. Students participate in nature studies through direct experience as well as stories and artistic work. Children participate in a play again this year and will be at the point in their development where they can perform for the entire school as well as parents and other relatives and friends.

Second Grade - Fables, Animal Stories and Legends

The second grade child has a desire to learn and the best way to teach him is through the imagination that engages the feeling life. A strong identification with the subject matter can occur when it is presented experientially and imaginatively. It is important that the teacher helps the student encounter the world in a healthy manner and that the teacher remains a strong role model for the students, both through her words and her deeds. The second grader also begins to show some signs of naughtiness. She might try her hand at a little lie or he may try to be a bit sneaky. That is why the animal fables and the hero stories are perfect for this age. The teacher can choose animal fables and other fables that show the one-sided aspects of greed, cunning, envy, etc. If the teacher feels it is necessary to balance these stories right away, the legends look at the other side of human nature. Aesop fables and animal legends from the Native American tradition as well as the Jakata tales provide important examples. The fables offer the children a very different type of story from the fairy tale heard in first grade. The simplicity of the fables often surprises the children and they at first are disappointed at how short the stories are. But then they are left with quite a bit to think about. The stories should be told several times before discussion ensues. Children will listen to the fables, discuss them, and write about them. They will also recite poems, such as tongue twisters and poems with repetition in this block.

Common Core
Writing
Text Types and Purposes

1. Write opinion pieces in which the introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.
2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Production and Distribution of Writing

4. (Begins in grade 3)
5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Speaking and Listening
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by linking their comments to the remarks of others.
    c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

Presentation of Knowledge and Ideas

4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)

Week One:

The beginning of the main lesson should start with a nice morning circle that contains a number of poems with repetition and some tongue twisters. Seasonal songs and movement games can be a part of the circle as well. After the circle, the teacher should begin with an animal fable. As mentioned above, Aesop Fables are great as are fables from other collections, such as *The Arbuthnot Anthology of Children's Literature* by May Hill. Native American fables can be told as well, especially the Coyote tales and African fables such as the Anansi stories are also appropriate or the Jakata tales. After the teacher has told the story, children can work on a picture in their main lesson book and can also work on writing, either from the circle poems or from the stories. However, the writing should not take place until the children have had time to sleep on the telling of the story and participate in a review. The children should always review the story with the teacher the following day and the review can take a number of forms, such as retelling, acting out the story, illustrating their favorite parts, etc. Students can use beeswax to make the animals in the story and should be able to hold discussions with the teacher during the review.

Week Two:

The teacher should decide if she wants to alternate the fables with legends, and if so, the second week of the block would cover legends. A block later in the year will contain the stories of heroes, so this week might be one that covers Celtic legends. The main lesson should start with the same circle as last week, with perhaps an added poem about a famous person. The teacher will then have the children review before starting a new story. The main lesson follows the pattern of the previous week, with writing and illustrating, molding with beeswax, and discussing the story. This also might be a good time to have children read appropriate leveled books on the theme of legends.

Week Three:

The third week of the block will again begin with the same circle. If the children seem to be a bit bored or restless, add some math facts in to keep them sharp!! The review follows the circle and if the teacher is keeping the pattern of fables/legends, then this week would hold more fables. It might be interesting to do a genre study with the students, where they hear Aesop fables, Native American Fables and African Fables, and as part of their discussion following the story, they can try and identify the differences and similarities. Compare and contrast is really a skill more developmentally appropriate for older students, however, second graders can still talk about how things are alike and different in a simpler manner. Following the story, students can work on writing (their writing can be from paragraphs that the teacher puts on the board or they can create their own writing. Steiner's suggestion for second graders is to have 1/3 of their writing be of their own creation.) After working on writing, students can then illustrate, either through a guided drawing or on their own. Guided drawings are especially appropriate for their main lesson books. Reading fables can also continue this week.

Week Four:

The final week of this block will again begin with the circle. By this time children should have all of the poems and songs memorized. They will begin the week with a review from the last story before going into the new story. Legends (if the teacher is following this pattern) will be told again this week. Native American legends could be told, especially focusing on ones where the main character carries out noble deeds. Writing, illustrating and reading again follow.

Poems

Any poems that support the theme of the block

Songs

Classic American folk songs

Songs from other cultures

Teacher Resources

Language Arts

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Garlieb, Malisa, *Literacy Learning in a Waldorf Classroom: A Meditation on Briar Rose*
11. Gillard, Marni, *Story Teller Story Teacher*
12. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book I*
13. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book II*
14. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
15. Heider, W. M. Von, *And then take Hands*
16. Holbook, Sara, *Practical Poetry*
17. Jaffke, Christoph, *Tongue Twisters ans Speech Exercises*
18. King, Nancy, *Storymaking and Drama*
19. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
20. Koch, Kenneth, *Rose, where did you get that red?*
21. Les Parsons, *Expanding Response Journals in All Subject Areas*
22. Martin, Michael, *The Little Series; St. Martin*
23. Matthews, Paul, *Sing Me the Creation*
24. McAllen, Audrey E., *Teaching Children to Write*
25. Mellon, Nancy, *Storytelling and the Art of Imagination*
26. Miller, Debbie, *Reading with Meaning*
27. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
28. The National Storytelling Association, *Many Voices; True Tales from America's Past*
29. The National Storytelling Association, *Tales as Tools*
30. Peckham, Margaret, *Fairy Tales*
31. Perrow, Susan, *Healing Stories for Challenging Behaviour*

32. Publications International, LTD., *Classic Children's Stories*
33. Rose, Michael, *Living Literacy*
34. Rubright, Lynn, *Beyond the Beanstalk*
35. Wilkinson, Roy, *Teaching English*
36. Wynstones Press, *Autumn; Poems, Songs and Stories*
37. Wynstones Press, *Gateways; Poems, Songs and Stories*
38. Wynstones Press, *Spring; Poems, Songs and Stories*
39. Wynstones Press, *Summer; Poems, Songs and Stories*
40. Wynstones Press; *Winter; Poems Songs and Stories*
41. Zaid, Gabriel, *So Many Books*

Second Grade – The Four Processes

During the first grade, the children were introduced to the four processes through personification and imagination. They practiced the basic facts for addition and subtraction up to 100 and worked on multiplication and division facts, including the 1s, 2s, 5s, and 10s. Multiplication was introduced through skip counting and division was presented as the opposite process from multiplication. As second graders, students should learn their basic addition and subtraction facts and should master their multiplication tables including the 3s, 4s, 6s, 7s, 8s and 9s. Division facts will be taught as the reverse of multiplication. The basic facts should be taught through rhythm and movement, story, imagination, color and song. Second grade students have not yet reached the place where they can differentiate themselves from the world, and as a result, the four processes should be taught together as a whole. Each of the processes must be introduced from whole to part. This would have started in first grade and should continue in second. For example, when working with an addition problem, begin with the total. I have 20 gems in this pile – what might I add together to get this? Or when reciting the multiplication tables, say the product first –e.g. 3 is 1 x 3, 6 is 2 x 3, etc. When teaching subtraction, Steiner suggests approaching it from the perspective of "giving away" as opposed to "taking away", so as to bring in a moral quality. Chapter 5 in Steiner's "Kingdom of Childhood" provides an excellent guide for teaching the basic facts. It is important to include mental math in this unit as well. Teaching odd and even numbers works well in this block, as it helps children learn strategies to remember their basic facts. Furthermore, there are a number of math trade books that children might like to read either at centers or when they complete other work.

Common Core Standards

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1

Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.

Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten

2. Count within 1000; skip-count by 5s, 10s, and 100s.

Week One:

As always, start the main lesson with a morning circle. Using verses from the "Number Family" (found in "A Journey Through Time in Verse and Rhyme"), might be a fun way to start, since the children learned some of these in first grade. Clapping the times tables, division facts, addition and subtraction

facts and using bean bags to practice will help engage the students in the memorization of the facts. If they can learn the facts rhythmically and with their bodies, it often times aids in memorization and recall. Think of how young children learn their ABCs (through the classic children's song) and then apply this same strategy to learning the basic facts. There are many verses and songs already written to aid children in this process or the teacher can write verses herself. An example of an addition "doubles" verse follows: 1 + 1 is 2, just like me and you. 2 + 2 is 4. Meet me at the door". Songs such as the classic "Inchworm" and "The Ants Go Marching" are two examples of well-known songs that can be used to help children learn their facts. The circle can also contain seasonal songs and poems. Following the circle, practice the facts using mental math. From there, review addition and subtraction facts learned in first grade during the first part of the week, then introduce concept of odd and even through a story. Learning about odd and even numbers is a strategy to help children learn their basic facts. Remember to keep the story fairly simple, as the children get too caught up in the details of the story if it is complicated and seem to miss the math!! At the end of the week, work on the 11s and 12s (basic addition and subtraction facts). Teachers can have the children practice the basic facts using gems or other counters. Creating a work mat out of the story is a fun way to enliven the concept for the children. (e.g. if the story is about a King or Queen, draw the castle in the middle of a 11 x 18 piece of paper, then put the +, -, x and division signs in each corner). Making illustrations from the story and putting examples of problems in their main lesson books help round out the main lesson. Teachers can also set up centers for the children to practice the concepts. There is a great play called "Work with Numbers" that is perfect for second grade. Students could practice this at the end of each main lesson and could work on the verses during the circle.

Week Two:
Begin the morning with the circle. Changes can be made by adding more facts to the rhythmic practice time. Follow the circle with mental math, then review. Focus this week's lessons on the 3s and 4s times tables and related division basic facts. Use story and art work to enliven the process. Students should practice their facts using manipulatives, such as gems, two color counters, and color tiles. Using arrays helps the children see the actual math problem. Going from the concrete, students can then color arrays on graph paper or can create their own. It is always important to go from the concrete to the semi-concrete to the abstract. The abstract would consist of writing the number sentence. (e.g. 12 = 4 x 3). The teacher can have the students practice the 3s and 4s in centers. Illustrations in the main lesson book should consist of pictures from the story as well as math problems. End the main lesson by practicing the play.

Week Three:
As in last week's main lesson, begin with the circle. This week include the 6s and 7s in the rhythmic work. Follow the circle with mental math, then a review. Either add to the story or create a new one that involves the 6s and 7s. For consistency sake, it might be nice to keep the same story line, since the focus should be on the math. Work with the 6s and 7s using manipulatives and arrays. Try to integrate other creative ways to show the processes. One great example seen in many Waldorf classrooms is the multiplication circles. Check out Henning Anderson's "Active Arithmetic" to learn how to do this. If the teacher is using centers, change the centers to include different games and books in order to help hold the children's attention. Include illustrations and problems in the main lesson book and end with the play practice (if the teacher decides to do this).

Week Four:
This week's circle will focus on the 8s and 9s. The teacher can add a new seasonal song or poem so as to keep the children interested. Following the circle, practice mental math and then move on to a review. Remember to use different instructional strategies for the review. Not only does this help keep the children sharp, it honors the various learning styles in the classroom. Introduce the 8s and 9s through story, then practice using various manipulatives. The nine times table is especially fun to teach because

there are so many patterns to be found. Use art work with the children from the story and from various math/art sources. Just as in the last 2 weeks, use arrays to teach the process, first with manipulatives, then with graph paper. If the teacher uses centers, it is important to try and include many disciplines in the centers, such as reading, writing, science, social studies, etc. Put problems and illustrations in the main lesson book and end the morning by practicing the play. It would be fun for the children to perform the play for parents or other classes or to actually make this the Class Play for second grade.

Poems
See "A Journey Through Time in Verse and Rhyme"

Songs
"3, 6, 9" by Chet Celenza
"Inchworm"
"The Ants go Marching"

Projects
Math Play

Teacher Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Van de Walle, John, Karp, Karen, and Bay Williams, Jennifer, *Elementary and Middle School Mathematics: Teaching Developmentally*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

Math Trade Books

Second Grade – Form Drawing, Geometry and Cursive Writing

Second graders have a challenging form drawing curriculum that beautifully prepares them for the study of Geometry that they will tackle in the middle school years. Not only does form drawing help children learn Geometry, it also develops fine motor skills needed for cursive writing. Form drawing strengthens eye-hand coordination and develops children's aesthetic sense and feeling for form. Furthermore, form drawing trains the brain to be flexible and to understand a complicated line of thought (Embrey-Stine & Schuberth, 1999). Geometry skills learned through form drawing include symmetry, horizontal and vertical axis, as well as 2-D and 3-D shapes. Learning handwriting through form drawing not only makes the process of learning cursive writing more interesting, it also leads towards a more beautiful, clear type of handwriting. Because second graders are very ready for a challenge, this block will meet them on a number of levels.

Common Core Standards

Geometry – Reason with shapes and their attributes

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (sizes are compared directly or visually, not compared by measuring)
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc. and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Weeks One, Two, and Three:
Because this block is covering three different areas of study, it is recommended that the teacher organize it as an integrated whole (rather than teaching each area separately). The circle can contain some Geometry poems/songs that refer to shapes and symmetry and can be filled out with seasonal poems, songs, and movements/games. Form drawing stories can be created by the teacher out of the form. For example, if the form being taught is based on a mirror image, the teacher would tell a short story of a group of children imitating one another or walking along the edge of a lake or pond – in other words something to indicate the concept. Children would then walk the form, following the teacher as in the game "Follow the Leader". The students could then come back to their seats and draw the form in the air and on one another's backs, then with their finger on the paper, before finally putting the form on paper with a crayon. Putting the form onto paper should take time and should be the children's best work. To organize the handwriting portion of the block, follow Book I of *The "Write" Approach* by Joen Gladich and Paula Sassi. If you get through the first volume, there is also a Book II. The pre-geometry portion of the block can follow Laura Embry-Stine and Ernst Schuberth's book, *Form Drawing: Grades One through Four*. The end of the main lesson can include practice from either discipline. In other words, if the focus is handwriting, then write a sentence or two using the forms learned. This can be illustrated in the main lesson book. If the focus is pre-geometry, do additional activities that practice the concept. Two books that have a number of appropriate activities are Reys, Lindquist, Lambdin, & Smith's *Helping Children Learn Mathematics* John Van de Walle's *Elementary and Middle School Mathematics: Teaching Developmentally.*

Teacher Resources:
Geometry

1. Laura Embry-Stine and Ernst Schuberth, *Form Drawing: Grades One through Four*
2. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*

3. John Van de Walle, *Elementary and Middle School Mathematics: Teaching Developmentally.*

Handwriting

1. Joen Gladich and Paula Sassi, *The "Write" Approach, Books I and II*

Music and Poetry

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
7. Fitzjohn, Suc, Judy Large and Minda Weston, *Festivals Together*
8. Haren, Wil van and Rudolf Kischnick, *Child's Play 1 and 2*
9. Haren, Wil van and Rudolf Kischnick, *Child's Play 3*
10. Heider, Molly von, *Looking Forward*
11. Jones, Betty, *A Child's Seasonal Treasury*
12. Lebret, Elisabeth, *Shepherd's Songbook for grade I, II and III of Waldorf Schools*
13. Lonsky, Karen, *A Day Full of Song*
14. Masters, Brien, *The Second Waldorf Songbook*
15. Slayton, Tamara, *The Little Cycle Celebration Book*
16. The Society of Brothers, *Sing through the Seasons*
17. Willwerth Kundry, *Let's Dance and Sing*

Second Grade – Place Value and Higher Level Algorithms

During the first grade, students were introduced to the four processes through story and imagination. They practiced their basic facts using movement, rhythm, verse, song, artistic work and hands-on activities. The expectation is for second grade students to begin learning higher level algorithms, but before they can do this, they need to have a firm understanding of place value, in particular ones, tens, and hundreds. Because the second grader is developing academically and has a strong desire to learn, it is important to present the subject matter experientially and imaginatively. Stories where the use of place value is a necessity can be created from a variety of situations, such as a squirrel with too many nuts, a King with a storehouse of goods, a gnome with too many gems, etc. Creating a story for the children that then has a picture connected to the place value chart really helps bring a sometimes abstract concept into a fun, attainable learning situation.

Common Core Standards

Number and Operations in Base Ten 2.NBT

Understand Place Value

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
    a. 100 can be thought of as a bundle of then tens – called a " hundred"
    b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones)
2. Count within 1000; skip count by 2s, 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of hundreds, tens, and ones digits, using =, and < symbols to record the results.

Use Place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawing and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

Week One:

Begin the week with a morning circle that contains poems, songs, movement and games. The circle can bring back certain skip counting verses from first grade and then add to that to include skip counting by 100s. There is a great version of the game "Duck Duck Goose" where the one who is "it" counts by multiple of ten (10, 20, 30, 40…) rather than saying "duck"and when they have chosen someone to chase, everyone counts by 10 once they have reached their destination. Seasonal songs and poems can be part of this circle as well. Depending on the story the teacher intends to tell that holds the image of ones, tens, and hundreds, she may find or write poetry that fits with the story. After the circle, the teacher should find out what the children know or remember about place value. On the first day of the block, the story should be told, followed by an activity that practices the story. Students can then create a picture to go with the story. The remainder of the week should provide opportunities for students to practice their understanding of place value using manipulatives such as base 10 blocks, counters of any

kind that can be grouped and money (pennies, dimes, dollars). The activities, however, should be linked to the story through short word problems. It is important for students to have many opportunities with different types of manipulatives and also to go from the numeral to the manipulative (i.e. make the number 135 using base 10 blocks and then show the base 10 blocks and write the numeral) Students can paint place value mats that can then be laminated for daily use.

Week Two:
This week should start with the same circle and children should be feeling comfortable counting by 2s, 5s, 10s, and 100s. If the teacher wants to add a new game to keep the circle fresh, that is always appreciated by the children. The week will begin with mental math, followed by a review, followed by extensive work with expanded notation. Just as in last week's lessons, the key to helping children really learn this material by heart and to engage in it fully, is to bring it to them imaginatively. Using the same story line as last week, the teacher can create smaller stories within the larger framework in order to teach expanded notation. Students can use base 10 blocks to help with their understanding and should follow the research in mathematics education, which states to go from concrete to semi-concrete to abstract. The base 10 blocks would represent a concrete approach and a semi-concrete activity might be to use base 10 block paper (this has pictures of the base 10 blocks that students can cut out and color) or have the children draw representations of 100s, 10s and 1s. Finally, students should be able to work with the abstract concept of expanded notation, and be able to write "523 = 500 + 20 + 3". The same holds true with the second concept students should work on this week, which is comparing two three-digit numbers based on meanings of hundreds, tens, and ones using =, and < symbols to record the results.

Week Three:
During this week students will again start the main lesson with the morning circle. Just as suggested in the second week, it would be interesting for the children to add a different game this week. A review of last week's work will be an important way to start, followed by mental math. Then the teacher should begin an introduction of adding 2 digit numbers + 2 digit numbers. The teacher should stick with the main story line started in week one and bring word problems out of this. Having the children use base 10 blocks to start the process of higher level algorithms helps children have a concrete basis for an abstract concept. Furthermore, but attaching the addition problems to an actual story problem, students will get a real feel for what is happening. By the end of the week, students should be able to add four 2 digit numbers together. Adding drawings to their work will also help bring it alive for them.

Week Four:
Start the week with the morning circle, again adding some new game to reflect the new material that will be introduced. The next part of the main lesson should focus on mental math, followed by a review. Then introduce subtraction with 2 digit numbers. This will be an introduction to regrouping, so using Base 10 blocks will help students get a firm grasp of the abstract concept. Make the problems imaginative and relate them to the main story line. Some of the children will understand regrouping immediately, while others will take some time to really grasp the concept. For those who get it right away, give them more difficult problems using 3 digit numbers. For those who are struggling, make the problems easier. Have them try 2 digit – 1 digit problems using manipulatives. They will need LOTS of practice and an understanding from the teacher that they might not grasp this concept this year. Add art work to their problems to keep it alive and engaging. All of the work from the 4 weeks can go into their main lesson books. Practice problems would be in a practice notebook.

Poems
The Number Family

Songs

Seasonal songs

Movement/Games
(see "Active Arithmetic")

Manipulatives
Base 10 Blocks
Other counters

Teacher Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Wilkinson, Roy, *Teaching Mathematics to Age 14*
9. Wilkinson, Roy, *Teaching Mathematics*

Second Grade – Problem Solving and Story Problems

One of NCTMs (National Council of Teachers of Mathematics) most important process standards and in fact, the one that is listed first is in regards to problem solving: ***Make sense of problems and persevere in solving them.*** Problem solving can and should be taught to children through a series of strategies. When children practice these strategies with developmentally appropriate math concepts, they can become confident and successful problem solvers. The practice can take the form of an in-depth unit (like this one) or through daily practice, or both. This particular block will focus on the basic problem solving strategies, including the following; draw a picture, act it out, use a model, solve a simpler problem, make a table or chart, guess and check, make an organized list, look for a pattern, and write an equation. They will also be taught the steps for solving problems, which include understanding the problem, devising a plan, carrying out the plan, and looking back. This may seem like difficult material for second graders, but when done appropriately using image and story as well as grade level math content, students can be successful. Furthermore, second graders are increasingly interested in a challenge, and this definitely qualifies as one.

Common Core Standards

Operations and Algebraic Thinking

Represent and solve problems using addition and subtraction

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Week One:
Start the morning with a circle that includes math verses (practice times tables, basic addition and subtraction facts), and seasonal poems and songs. This can be followed by mental math. Students will then be introduced to 1-2 strategies per day and practice the steps for solving problems. However, the problems must be given to the children through an imaginative story. Be careful not to make the story too long or fanciful, however, because they will focus on the story and not the math!! Just create an interesting story line that all of the problems can stem from. Practice the strategies daily through many different types of problems and have the students write out some of the problems, giving them an opportunity to work on their writing skills. Also, add illustrations to the problems that will be in their main lesson books. At the beginning of each lesson, make sure to review the previous day's work.

Week Two:
This week will begin with the same circle, although if working on basic facts (x, +. -), then switch it up. Follow the circle with mental math and then a review. This week will be similar to last week's main lessons, in that students will be working on more strategies and continually practicing the problem solving steps. The story line can continue, or the teacher can create a new one if the students seem to need something creative to keep them interested. It is important to involve the current math concepts and topics that the children are working on throughout all 3 weeks of this block. Again, have the children practice their writing as they put some examples into their main lesson books with beautiful illustrations.

Week Three:

Keep the same circle with new basic facts and perhaps a new poem or song. Continue working on mental math and review with the children each day. Make sure to use a variety of review strategies. For problem solving, they can act out strategies or the problem solving steps, they could make a little skit, or do something with the visual arts. Introduce the last of the strategies this week and continue working on the problem solving steps. Create a new story line or continue with the ones from previous weeks, depending on the students' level of engagement. Addison Wesley publications has a great set of problem solving books that focus in on each of the strategies and the math is grade-level appropriate. If you can get a set of these, they are excellent. Again, include some problems in the main lesson book along with illustrations. If the teacher wants to see how well the students recall the strategies, mix it up at the end of week three and see if the children know which strategies to use.

Songs
Seasonal songs

Poems
Seasonal poems

Activities
Math clapping games (basic facts)
Math bean bag games (basic facts)

Teacher Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Van de Walle, John, Karp, Karen, and Bay Williams, Jennifer, *Elementary and Middle School Mathematics: Teaching Developmentally*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

Second Grade – Play Block

Second graders enjoy the challenge of recitation and memorization. They do so in chorus with the whole class and can begin to recite individually. They are confident enough to stand in front of people and perform. The second grade class play is the perfect time for students to show how much they know and have learned. Class plays in the Waldorf tradition are also a chance for children to delve deeply into other characters. For the second grader, pretending to be someone or something else is great fun. Class teachers can use the play to help children "try on" certain roles. For example, if a child is shy, perhaps she might have the main role and be able to overcome her shyness through this experience. Other times teachers use the class play homeopathically. In other words – like attracts like. In this case a teacher might take a rather naughty child and place him in a very mischievous role. On many occasions, the naughtiness subsides. Still other times the class play helps unite the class. It takes everyone to make the play successful. Academically speaking, the play serves as an excellent language arts experience. Students read, recite, comprehend, write, and illustrate all aspects of the play. There are many excellent sources for plays (see teacher resources) or teachers who are inclined can write the class play themselves. The play should always compliment the age of the child and should also go along with the year's curriculum. Since the focus of second grade is fables, myths, and legends, this is a good starting point for choosing the play.

Common Core Standards

Common Core Standards - Reading Literature

Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why and how to demonstrate understanding of key details in a text.
2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson or moral.
3. Describe how characters in a story respond to major events and challenges.

Craft and Structure

4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Integration of Knowledge and Ideas

7. Use information gained from the illustrations and words used in a print or digital text to demonstrate understanding of its characters, setting, or plot.
8. n/a
9. Compare and contrast two or more versions (e.g., Cinderella stories) of the same story by different authors from different cultures.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Informational Text

Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.
3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Craft and Structure

4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
5. Know and use various text features (e.g. captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts and information in a text efficiently.
6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Integration of Knowledge and Ideas

7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify text.
8. Describe how reasons support specific points the author makes in a text.
9. Compare and contrast the most important points presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend informational texts, including history/social studies, science and technical texts, in the 2-3 text complexity bands proficiently, with scaffolding as needed at the high end of the range.

Reading Standards - Foundational Skills
Phonics and Word Recognition

1. n/a
2. n/a
3. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
    b. Know spelling-sound correspondences for additional common vowel teams.
    c. Decode regularly spelled two-syllable words with long vowels.
    d. Decode words with common prefixes and suffixes.
    e. Identify words with inconsistent but common spelling-sound correspondences.
    f. Recognize and read grade-appropriate irregularly spelled words.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
    a. Read on-level text with purpose and understanding.
    b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
    c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards
Text Types and Purposes

1. Write opinion pieces in which the introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.
2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Production and Distribution of Writing

4. (Begins in grade 3)
5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Speaking and Listening
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by linking their comments to the remarks of others.
    c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

Presentation of Knowledge and Ideas

4. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)

Week One:

A play block can take on the same rhythm of other blocks, or the teacher can use this time as a brief respite from the routine in order to add some interest and intrigue for the children. If the teacher chooses to start with the circle, then use the choral reading pieces from the play as material. Song selection would be the same. Any songs in the play could be practiced in the morning circle and if a dance accompanies the song, practice this as well. The play's introduction can be done in a number of ways. The teacher can tell the story of the play in order to give children an overall feeling for it. She could also read the entire play to the children, although this would produce a different experience. After the children have an understanding of what the play is about, they can read through it either in groups or as a class. Certain parts can be illustrated and other parts can be written in the main lesson book.

Actual practice would not start immediately (save for the morning circle). Once the teacher has a feel for who should play what parts, then children can begin working on their individual pieces. She can assign the parts on the last day of the week so the children can practice over the weekend if they wish.

Week Two:
Continue practicing poems, songs, and dances in the circle. It is now time to begin practicing the play. If any parents are available to help, this is a great time to invite them in. Practicing in small groups is really best, yet the other children need to be occupied as well. Those not working with the teacher could work individually writing out their parts. Others could work with parents working on scenery or practicing parts. Toward the end of the main lesson each day, pull everyone together to begin blocking out each scene. Those children not in a particular scene can watch, but if they have difficulty doing this, make sure they have something else appropriate to do. Encourage all students to have their parts memorized by the end of the week.

Week Three:
This is the week to add the finishing touches to the play and put it all together for a performance on Friday. Students can continue practicing the songs, poems, and dances in the circle. Following this, the teacher can work on individual scenes of the play or can run through the entire play with the students. Children can make invitations for parents, relatives and other classes in the school. If the children are performing in the gym or auditorium, make sure to practice the play there as well. As far as costumes go, usually a parent takes this up. One parent can organize the costumes and ask for help from individual parents. Have at least two dress rehearsals and if the morning lesson time is not enough, use the extra main lessons in the afternoon to put the finishing touches on the play. Hold the performance on Friday during the day. Invite parents and the other classes at the school to attend.

Teacher Resources
Music

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
7. Fitzjohn, Suc, Judy Large and Minda Weston, *Festivals Together*
8. Haren, Wil van and Rudolf Kischnick, *Child's Play 1 and 2*
9. Haren, Wil van and Rudolf Kischnick, *Child's Play 3*
10. Heider, Molly von, *Looking Forward*
11. Jones, Betty, *A Child's Seasonal Treasury*
12. Lebret, Elisabeth, *Shepherd's Songbook for grade I, II and III of Waldorf Schools*
13. Lonsky, Karen, *A Day Full of Song*
14. Masters, Brien, *The Second Waldorf Songbook*
15. Slayton, Tamara, *The Little Cycle Celebration Book*
16. The Society of Brothers, *Sing through the Seasons*
17. Willwerth Kundry, *Let's Dance and Sing*

Language Arts

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*

2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Gillard, Marni, *Story Teller Story Teacher*
11. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
12. Heider, W. M. Von, *And then take Hands*
13. Holbook, Sara, *Practical Poetry*
14. Jaffke, Christoph, *Tongue Twisters ans Speech Exercises*
15. King, Nancy, *Storymaking and Drama*
16. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
17. Koch, Kenneth, *Rose, where did you get that red?*
18. Les Parsons, *Expanding Response Journals in All Subject Areas*
19. Martin, Michael, *The Little Series; St. Martin*
20. Matthews, Paul, *Sing Me the Creation*
21. McAllen, Audrey E., *Teaching Children to Write*
22. Mellon, Nancy, *Storytelling and the Art of Imagination*
23. Miller, Debbie, *Reading with Meaning*
24. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
25. The National Storytelling Association, *Many Voices; True Tales from America's Past*
26. The National Storytelling Association, *Tales as Tools*
27. Peckham, Margaret, *Fairy Tales*
28. Perrow, Susan, *Healing Stories for Challenging Behaviour*
29. Publications International, LTD., *Classic Children's Stories*
30. Rose, Michael, *Living Literacy*
31. Rubright, Lynn, *Beyond the Beanstalk*
32. Wilkinson, Roy, *Teaching English*
33. Wynstones Press, *Autumn; Poems, Songs and Stories*
34. Wynstones Press, *Gateways; Poems, Songs and Stories*
35. Wynstones Press, *Spring; Poems, Songs and Stories*
36. Wynstones Press, *Summer; Poems, Songs and Stories*
37. Wynstones Press; *Winter; Poems Songs and Stories*
38. Zaid, Gabriel, *So Many Books*

Second Grade – Higher Level Algorithms, II

During the first block on higher level algorithms, second graders began by reviewing their understanding of place value. From there, they moved on to adding two digit + two digit numbers and subtracting numbers within 100. This second block on higher level algorithms would be the last math block of the year and will take students further into the realm of adding and subtracting larger numbers. In Waldorf education, it is a practice to "let things rest", thus giving information a chance to settle in and become a part of the students' knowledge base. Although students have most likely worked with adding and subtracting larger numbers in their skills classes, this block will give them an opportunity to delve more deeply into the subject matter. It is important to keep the work imaginative, thus bringing the problems to the children through story and practical application. As Rawson and Richter (2005) so aptly state, "Motivation should be awakened through pictorial descriptions of number qualities" (p. 66). In other words, even though the numbers are getting larger, students still be given a sense of quality of these numbers, and not just work with the quantity the numbers represent.

Common Core Standards

Number and Operations in Base Ten 2.NBT
Understand Place Value

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
    a. 100 can be thought of as a bundle of then tens – called a " hundred"
    b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones)
2. Count within 1000; skip count by 2s, 5s, 10s, and 100s.
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of hundreds, tens, and ones digits, using =, and < symbols to record the results.

Use Place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000, using concrete models or drawing and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
8. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.

Week One:
Begin the morning with a circle that focuses on math facts. Since students will be working with place value and basic facts, choose activities that compliment these topics. For example, the children will need to add and subtract fluently (basic facts), so any rhythmic exercises with bean bags or clapping will help them brush up on these facts. Other types of activities can involve games that add 10 or 100 to a given number. Seasonal songs and poems can also be included in the circle. Following the circle, the teacher

can engage the children in mental math. Make sure to meet the standards and reiterate what was done in the circle. (i.e. 100 + 300 = ??) The review can begin with place value. Make sure to extend the students' understanding of place value to include the 1000s place. Also see what the children remember about adding and subtracting two digit numbers. From there, have the children attempt adding up to four 2 digit numbers. It will be helpful to add a story line to the problems. For example, "The parents of the third graders want to buy eggs, but they don't know if our chickens are producing enough eggs each week to make it worthwhile. I told the 3rd grade teacher that we are working on adding big numbers and that we will help them out. They need at least 144 eggs (12 dozen) each week. If the chickens laid 22 eggs on Monday, 30 eggs on Tuesday, 15 eggs on Wednesday, and 18 eggs on Thursday, did they have enough?" Work with these concepts (place value and adding up to four 2-digit numbers) throughout the week. Make sure to use Base 10 blocks at first, just so children who need them can better understand the concept. Let the children experiment with different addition strategies (after teaching them!). Strategies can be found in Reys, et. al, *Helping Children Learn Mathematics.* In addition, let the children write about why the strategies work. Put pictures and problems in the main lesson book.

Week Two:
Start with the same circle, but add different math facts and a new song or poem. Following the circle, work with mental math. Use different approaches, such as "Climb the Mountain", "Sign Language", and ideas from March Cook. (www.marcycookmath.com) This week focus on adding numbers within 1000. Although some schools of thought recommend adding and subtracting simultaneously, this seems to confuse children, especially when they are first learning the strategies and it hasn't become second nature to them. Continue working with the strategies for adding large numbers and let the children use Base 10 blocks to help go from concrete to abstract. Make sure to keep imagination alive in the presentation. Use story to go with the concepts, ensuring children understand the quality of the numbers they are working with. What is 500? What does it look like? What might you have 500 of? Give the children plenty of opportunity to practice. Put pictures and problems in the main lesson book.

Week Three:
Keep the same circle but focus on subtraction facts this week. Add a new poem or song. Follow the circle with mental math and then a review. This week students will be working with subtracting numbers within 1000. Work with the strategies for subtraction (also found in the above mentioned text) and present it to the children imaginatively. It is also important to integrate a sense of social justice when teaching mathematics. With subtraction, present the concept as giving away as opposed to "losing". It is a subtle, yet important way in which to imbue children with a sense of helping their fellow human beings. Again, use Base 10 blocks to help the children understand the concept concretely before moving to the abstract. Story also helps children get a feel for what is happening with the math concept. Give the children many opportunities to practice. If the teacher deems it appropriate, she can set up centers for the practice period. Have children put pictures in their main lesson books from the story. Enter the strategies and example problems as well.

Week Four:
During this week give children both addition and subtraction problems to work with. Hopefully they will have enough understanding and confidence to switch from one process to the other. If at all possible, put the Base 10 blocks away and make sure students know the standard algorithm for both addition and subtraction. The standard algorithms are the fastest and most efficient way to solve these types of problems. Continue with the circle and with mental math. Have the children put their best work in their main lesson books. It might be fun for the class to have a class store at the end of this week. They can practice purchasing items and playing both the customer and the shop keeper.

Songs and Poems:

Seasonal songs and poems

Teacher Resources:
Math

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
8. Van de Walle, John, Karp, Karen, and Bay Williams, Jennifer, *Elementary and Middle School Mathematics: Teaching Developmentally*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

Music and Poetry

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
7. Fitzjohn, Suc, Judy Large and Minda Weston, *Festivals Together*
8. Haren, Wil van and Rudolf Kischnick, *Child's Play 1 and 2*
9. Haren, Wil van and Rudolf Kischnick, *Child's Play 3*
10. Heider, Molly von, *Looking Forward*
11. Jones, Betty, *A Child's Seasonal Treasury*
12. Lebret, Elisabeth, *Shepherd's Songbook for grade I, II and III of Waldorf Schools*
13. Lonsky, Karen, *A Day Full of Song*
14. Masters, Brien, *The Second Waldorf Songbook*
15. Slayton, Tamara, *The Little Cycle Celebration Book*
16. The Society of Brothers, *Sing through the Seasons*
17. Willwerth Kundry, *Let's Dance and Sing*

Second Grade – Heroes, Legends, and Folklore

Fables, legends, folklore and nature stories concerned with animals and the local environment comprise the literature material for grade two. In this block, legends, folklore, and stories of heroes are the primary literary material. As in the block that focused on fables and legends (juxtaposing the two), this particular unit compares legends and heroes to folklore. Second graders appreciate the silliness of the folk legend Paul Bunyan and are imbued with a sense of goodness when they hear the stories of famous people who gave their lives to serve their fellow human beings. Within the block, students practice the art of listening, speaking (through retelling stories), reading and writing. The children practice their reading with texts they have written themselves (main lesson books) and through books provided by the teacher. Instruction should vary from whole class reading to group reading (child to child and child to adult) to solo reading. Writing comes out of the stories they are hearing and reading. Writing can take place during the main lesson and also during Readers/Writers Workshop.

Common Core Standards - Reading Literature

Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why and how to demonstrate understanding of key details in a text.
2. Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson or moral.
3. Describe how characters in a story respond to major events and challenges.

Craft and Structure

4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6. Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.

Integration of Knowledge and Ideas

7. Use information gained from the illustrations and words used in a print or digital text to demonstrate understanding of its characters, setting, or plot.
8. n/a
9. Compare and contrast two or more versions (e.g., Cinderella stories) of the same story by different authors from different cultures.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Informational Text
Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. Identify the main topic of a multi-paragraph text as well as the focus of specific paragraphs within the text.
3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Craft and Structure

4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
5. Know and use various text features (e.g. captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts and information in a text efficiently.
6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Integration of Knowledge and Ideas

7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify text.
8. Describe how reasons support specific points the author makes in a text.
9. Compare and contrast the most important points presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend informational texts, including history/social studies, science and technical texts, in the 2-3 text complexity bands proficiently, with scaffolding as needed at the high end of the range.

Reading Standards - Foundational Skills
Phonics and Word Recognition

1. n/a
2. n/a
3. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
    b. Know spelling-sound correspondences for additional common vowel teams.
    c. Decode regularly spelled two-syllable words with long vowels.
    d. Decode words with common prefixes and suffixes.
    e. Identify words with inconsistent but common spelling-sound correspondences.
    f. Recognize and read grade-appropriate irregularly spelled words.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
    a. Read on-level text with purpose and understanding.
    b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings.
    c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing Standards
Text Types and Purposes

1. Write opinion pieces in which the introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., *because*, *and*, *also*) to connect opinion and reasons, and provide a concluding statement or section.
2. Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure.

Production and Distribution of Writing

4. (Begins in grade 3)
5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.
6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Speaking and Listening
Comprehension and Collaboration

1. Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.
    a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
    b. Build on others' talk in conversations by linking their comments to the remarks of others.
    c. Ask for clarification and further explanation as needed about the topics and texts under discussion.
2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.
3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

Presentation of Knowledge and Ideas

1. Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences.
2. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.
3. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 2 Language standards 1 and 3 for specific expectations.)

Week One:
The morning circle can contain poems and songs about heroes and folk heroes, seasonal poems and songs, dances to go with the songs and movement to accompany the poetry. Math facts can always be included for good measure. During this first week, children should hear stories of heroes from around the world. These can include religious heroes or modern day heroes – from St. Francis to Martin Luther King, Jr. If the teacher wants to arrange the block chronologically, then begin with heroes from history and move through time. These stories are longer than the fables, so the children will enjoy settling into a good story. Choose 2-3 stories to cover each week, leaving time for review and retelling each day. After the story, children can practice any number of language arts skills, from reading in literature groups (grade level stories about heroes) to writing from the story material. Include illustrations from the story as well. These and the children's best writing will go into the main lesson books. Teachers can set up stations during the practice time, where students do word work, read, write, and draw.

Week Two:
Continue with the same circle. According to Rawson and Richter (2005), second grade students should now be able to not only recite poetry with their classmates, they should also be able to recite by

themselves. Asking students to say poems or lines of poems in the circle is appropriate. Follow the circle with a review and then the new material. If the teacher is alternating between heroes and folk heroes, then this week would feature the folklore. Students will enjoy the change from the serious stories of last week to the outlandish folk tales. After the story, students can again practice reading, discussing, writing and illustrating. These blocks are perfect for helping children with their drawing skills by doing guided drawings several times during the week. Modeling with beeswax is another art form that can be integrated.

Week Three:
Keep the same circle, but introduce a new poem and/or song and perhaps drop one or two that the children have mastered. Review last Friday's story and then move into the new stories of the week, which will again feature a hero or heroine. (make sure to include females!!) Following the story, children can then practice their skills through stations or in literature circles. While one group is reading, the others can work on their writing. Continue with guided drawings and have children put their best work in the main lesson books. Refer to the Common Core standards to know exactly what writing and reading skills students should be mastering during this block.

Week Four:
Follow the same pattern as the previous three weeks, beginning with the morning circle. By now the students should be able to recite all of the poems together and alone. Included in the resource list are books with folk dances and folk songs. Second graders really love to dance. They aren't at the stage where they are embarrassed (at least they shouldn't be). Review the story from the previous day and then move on to more folklore. If the teacher wishes to do both folklore and hero stories this week, that would be fine, as the children have now had a taste of both. After the story, practice reading, writing, and discussing. Writing can be done using the Writers Workshop model. Illustrate stories using guided drawing and let the children do some free illustrations as well – i.e. draw their favorite part from the story. Enter their best work into the main lesson books.

Songs
(see Resource List)

Poems
A Journey Through Time in Verse and Rhyme
Projects
Students might want to make a diorama of their favorite story

Resource List
Music

1. Baker, Diane, Anne Hill and Starhawk, *Circle Round*
2. Betteridge, Barbara Dawson, *Whittle Your Ears*
3. Blanning, Nancy, *Meeting the Needs of the Child Today*
4. Burgess, Donna, *Dancing through School Vol. 1*
5. Chase, Richard, *Old Songs and Singing Games*
6. Darian, Shea, *Seven Times the Sun*
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9. Haren, Wil van and Rudolf Kischnick, *Child's Play 3*
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Language Arts

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Garlieb, Malisa, *Literacy Learning in a Waldorf Classroom: A Meditation on Briar Rose*
11. Gillard, Marni, *Story Teller Story Teacher*
12. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book I*
13. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book II*
14. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
15. Heider, W. M. Von, *And then take Hands*
16. Holbook, Sara, *Practical Poetry*
17. Jaffke, Christoph, *Tongue Twisters ans Speech Exercises*
18. King, Nancy, *Storymaking and Drama*
19. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
20. Koch, Kenneth, *Rose, where did you get that red?*
21. Les Parsons, *Expanding Response Journals in All Subject Areas*
22. Martin, Michael, *The Little Series; St. Martin*
23. Matthews, Paul, *Sing Me the Creation*
24. McAllen, Audrey E., *Teaching Children to Write*
25. Mellon, Nancy, *Storytelling and the Art of Imagination*
26. Miller, Debbie, *Reading with Meaning*
27. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
28. The National Storytelling Association, *Many Voices; True Tales from America's Past*
29. The National Storytelling Association, *Tales as Tools*
30. Peckham, Margaret, *Fairy Tales*
31. Perrow, Susan, *Healing Stories for Challenging Behaviour*
32. Publications International, LTD., *Classic Children's Stories*
33. Rose, Michael, *Living Literacy*
34. Rubright, Lynn, *Beyond the Beanstalk*
35. Wilkinson, Roy, *Teaching English*
36. Wynstones Press, *Autumn; Poems, Songs and Stories*
37. Wynstones Press, *Gateways; Poems, Songs and Stories*
38. Wynstones Press, *Spring; Poems, Songs and Stories*
39. Wynstones Press, *Summer; Poems, Songs and Stories*
40. Wynstones Press; *Winter; Poems Songs and Stories*
41. Zaid, Gabriel, *So Many Books*

The Third Grade Curriculum

The third grader is entering into school in an entirely different way than he/she did in second grade. According to Rawson and Richter (2005),

The first experience of separation comes at around nine years of age (i.e. in Class 3). Now the children notice a stronger division between themselves and the grown-ups. Unconsciously at first, they begin to question the teacher's authority, which they have hitherto accepted unquestioningly as being almost like a law of nature. They now want to know whether what the teacher says really is securely based on a wide-ranging experience of the world and of life. On the whole this question remains at the sub-conscious level and is rarely put verbally. The children now want to admire a person where formerly they loved in a child-like way, but they want to know that their admiration is justified. This means that a new teaching method is called for. The aspects of the world presented in school have to take account of this distancing process, while at the same time the children need to be accompanied and supported in the right way so they step out of the golden background of childhood into the colorful reality of a world differentiated by a new, if naïve perspective. In other words, confronting them with the world as it really is does not mean that they must be presented with cold or sobering scientific facts entirely detached from human life. As the "loss of paradise" is increasingly felt, each individual child needs to be shown how he or she is a unique center relating outwards to the environment. (p. 17-18)

Most importantly, the third grade student needs to develop a sense of security through self-sufficiency, and that is exactly what the third grade curriculum is designed to do.

3rd Grade (Blocks are 3-4 weeks long)

- Creation Stories from Around the World
- Measurement
- Farming
- Grammar
- Shelters – building and studying
- Class Play (Drama)
- Time and Money
- Higher Level Algorithms
- Cooking and Sewing

Third Grade - Creation Stories from Around the World

In third grade, the language arts curriculum is taught thematically through practical living and multi-cultural creation stories from around the world. Through multi-cultural creation stories, themes can be covered in this block including a divine creator as a figure of authority and the giver of the law, the fall and loss of innocence, the need for law to structure human society and the concept of obedience. Language arts skills covered in this block include reading and comprehension of grade level books (in this case books related to creation stories), encoding rather than merely decoding, and using dictionaries to help with vocabulary development. Students also learn that plot, character and summary become ways of distinguishing the actions of text, and genre conventions (poetry, fiction and nonfiction) are now recognizable. In writing, students work toward sentence structure and paragraph development.

Common Core Standards

Reading Standards – Grade 3

Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
6. Distinguish their own point of view from that of the narrator or those of the characters.

Integration of Knowledge and Ideas

7. Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
8. (Not applicable to literature)
9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).

Range of Reading and Level of Complexity

10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.

Week One:

The morning circle for this block should include poetry from the specific cultures being studied. If the teacher chooses to begin the first week with Native American Creation Stories, then Native American poetry is appropriate, as are movement, games and songs from the culture. Following the circle, students will hear creation stories and will then have time to practice specific literacy skills in their reading. This is a good time to have students in literature circles so the teacher can work on the skills that students need. Also, for advanced readers, these literature circles can provide the necessary

challenges. Writing skills are also practiced in this block. Students will write in their reading response journals and will also write summaries of stories told by the teacher. Main lesson books will include illustrations from the stories and writings done by the students.

Week Two:
The morning circle can include a few items from the first week and new poems, songs, and movements/games from the new culture/cultures. Other creation stories of interest come from Africa, the middle east (the Old Testament), Australia, China/Japan, and Europe. Based on the makeup of the class, the teacher can choose which cultures are most applicable. Work continues with students' reading and writing and main lesson books hold more of their best illustrations and writing (which can include summaries, poems, or creative stories).

Week Three:
This week will be a wrap-up of the block, although teachers may choose to extend this block to four weeks and have children choose a specific culture they are interested in and create a project around that culture. This week follows the same format as the first two, with new poems, songs, and movement/games for the morning circle, stories told and read from different cultures, and independent and group skill work that follows the story.

Songs, Poems, Games:
These will depend upon the cultures the teacher chooses to include.

Resources:

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Gillard, Marni, *Story Teller Story Teacher*
11. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
12. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
13. Heider, W. M. Von, *And then take Hands*
14. Holbook, Sara, *Practical Poetry*
15. Jaffke, Christoph, *Tongue Twisters ansdSpeech Exercises*
16. King, Nancy, *Storymaking and Drama*
17. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
18. Les Parsons, *Expanding Response Journals in All Subject Areas*
19. McAllen, Audrey E., *Teaching Children to Write*
20. Mellon, Nancy, *Storytelling and the Art of Imagination*
21. Miller, Debbie, *Reading with Meaning*
22. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
23. The National Storytelling Association, *Many Voices; True Tales from America's Past*
24. The National Storytelling Association, *Tales as Tools*
25. Publications International, LTD., *Classic Children's Stories*
26. Rose, Michael, *Living Literacy*
27. Rubright, Lynn, *Beyond the Beanstalk*

28. Zaid, Gabriel, *So Many Books*

Third Grade – Measurement

In third grade the mathematics curriculum is geared toward the practical in thematic instruction through gardening and building projects. This block on measurement includes the study of weight, linear measurement, volume, area and perimeter and prepares students for the practical application of these concepts. It is important for the third grader to feel that he/she can be "of use" in the world, and these skills help achieve that goal. Students learn about different measurement concepts through hands-on activities and learn to use measurement tools in this block. Students first work with non-standard units of measure and then move to standard units of measure. It is important for children to have a real feel for the tools they are using, thus when learning linear measurement, for example, students make their own rulers. Third grade mathematics concepts are further supported through whole-body movement activities, storytelling, music, poetry, and artistic work.

Common Core Standards

Measurement and Data
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects

1. (Covered in a different block)
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
3. (Covered in different block)
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.
5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
    a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
    b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
7. Relate area to the operations of multiplication and addition.
    a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
    b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
    c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $(b + c)$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
    d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Week One:
During this first week, linear measurement should be the focus. The main lesson will start with a morning circle that includes songs and poems about measurement as well as movement activities. Even though students are in third grade, it might prove helpful to begin with linear measurement by first

doing a few activities with perceptual measurement (i.e. which is longer), then activities with direct and indirect comparisons. Students can work with non-standard units of measure. Following this, the story "How Big is a Foot" by Meyer is perfect for introducing standard units of measure. Students should make their own rulers and then learn to measure to the nearest inch, half inch and quarter inch. If this block is taught in the fall or spring, students can measure their garden plot or can design "Square Foot" gardening beds.

Week Two:
The morning will start again with the circle, followed by a review of last week's work. The topics for this week are weight and volume. Teaching these concepts through story and real life, hands-on activities will help children better retain the information. They can practice weighing objects using both a pound scale and a gram scale. Volume is the study of liquid measure. Here, students learn about gallons, quarts, and pints and their equivalencies. Always start with the concrete before moving to the abstract. Cooking activities can help in practicing these skills. Main lesson books should contain rules, equivalencies, and illustrations. Students can also write summaries of stories.

Week Three:
This week begins as did the first two, with the morning circle. Begin the week by reviewing last week's content and then introduce the new content of area first, then perimeter. Both concepts are best taught using graph paper, preferably cm graph paper, as it is larger than normal graph paper and better suited for 9 and 10 year old students. Introduce the concepts through story and make sure to include a number of hands-on activities before moving to the more abstract paper and pencil problems. This is a good week to work on story problems, with area and perimeter as the focus. The garden is also a great real-life, practical place to practice the concepts of area and perimeter. Again, include the children's best work in their main lesson books, including formulas, story summaries, and illustrations.

Songs

Poems
"To Build a House"

Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Harrer, Dorothy, *Math Lessons for Elementary Grades*
5. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
6. Myller, Rolf, *How Big is a Foot?*
7. Wilkinson, Roy, *Teaching Mathematics to Age 14*
8. Wilkinson, Roy, *Teaching Mathematics*

Third Grade – Farming/Gardening Block

In the third grade, children become more aware of themselves and the physical environment in which they live. As a result, a new interest in practical, real world skills as well as in the material world emerges. They practice reading and math and can now apply these skills to everyday situations that require them to weigh or measure things, for example. If the teacher can involve the whole class in building or farming (as in this block) projects, she can help transform the initial feelings of separateness from the real, physical world to a feeling of responsibility for the world, for the earth (Rawson and Richter, 2005). Thus, the farming block is one where children can not only use their new math skills to lay out garden plots, count seeds, or measure rows, but to also sell their produce at after school farmers markets, where they will use their knowledge of counting money, making change and figuring out profits.

Common Core Standards
Measurement and Data
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects

1. (Covered in a different block)
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
3. (Covered in different block)
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch.
5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
    a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
    b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
7. Relate area to the operations of multiplication and addition.
    a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
    b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
    c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and $(b + c)$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
    d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Writing Standards
Text Types and Purposes

2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
b. Develop the topic with facts, definitions, and details.
c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
d. Provide a concluding statement or section.

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
c. Use temporal words and phrases to signal event order.
d. Provide a sense of closure.

Idaho State Science Standards
Science, Life and Environmental, Performance Standards F Grade 4
By the end of **grade four**, students will:

THE CHARACTERISTICS OF ORGANISMS

- F.4.1 Discover* how each organism meets its basic needs for water, nutrients, protection, and energy* in order to survive.
- F.4.2 Investigate* how organisms, especially plants, respond to both internal cues (the need for water) and external cues (changes in the environment).

LIFE CYCLES OF ORGANISMS

- F.4.3 Illustrate* the different ways that organisms grow through life stages and survive to produce new members of their type

ORGANISMS AND THEIR ENVIRONMENT

- F.4.4 Using the science themes*, develop explanations* for the connections among living and non-living things in various environments

Content Standard Science Standard F - Life and Environmental Science
Content Standard: Students in Idaho will demonstrate an understanding of the characteristics and structures of living things, the processes of life, and how living things interact with one another and their environment.
Note: For more details of the content of life and environmental sciences, see National Science Education Standards* *(1996, p. 115 - 201).*
Rationale
Students will enhance their natural curiosity about living things and their environment through study of the structure and function of living things, ecosystems, life cycles, energy movement (transfer), energy change (transformation), and changes in populations of organisms through time. Knowledge of these concepts and processes of life and environmental science will assist students in making informed choices regarding their lifestyles and the impact they have on communities of living things in their environment.

Week One:
This week will start with a morning circle that involves music, poetry, and movement, all with a focus on gardening, planting seeds, taking care of plants/gardens, and/or harvesting. If the block takes place in the fall, then harvesting would be the focus, but only if teachers began the block at the end of second

grade. If teachers wait until the end of third grade, and schedule this for the last block of the year given the climate in northern Idaho, then knowledge learned in the measurement and time/money blocks could be applied. After the circle, the teacher can bring the students an overview of gardening and farming in Idaho, but should do this in an imaginative way. "Farmer Boy" by Laura Ingills Wilder is a perfect book to accompany this block. Once students have an overview, they can begin brainstorming what they would like to plant in their garden/field. The book "The All New Square Foot Gardening" is a great resource for teachers and has actual planning templates in the back of the book. Drawing out the garden plots is a practical exercise (and necessary!) for students. They can use their newfound knowledge of measurement skills. If students built frames for their square foot gardens in the building/shelters block, these can then be used. If they did not, then building the frames is an excellent activity for this block. Again, students can measure the wood and put the frames together (with the help of the teacher and hopefully parent volunteers). It is advisable to have each group of 3-4 students responsible for one frame. After the frames are built, the dirt will need to be shoveled in, and then planting can ensue. The last part of each main lesson during this first week can be spent illustrating their garden plots, writing about what they accomplished or listening to "Farmer Boy".

Week Two:
Start the second week with the same circle, but add a few items about animals. If the garden has not been planted yet, then that will be the first thing to take care of this week. Farming is not only planting crops. It also involves caring for animals. If the school has chickens, the care of the chickens and the coop can be the focus of this week. If the school does not have chickens and wants to purchase and raise them, then hatching eggs could be the focus of this week. Learning all about chickens is a really fun project. Students could become an expert on one type of chicken through research. If neither of these options is possible (taking care of chickens or hatching eggs), then visiting a farm and experiencing the animals and their care is essential. Also, checking on the plants daily is important. Children can keep a daily journal of the plant growth and can measure, record and illustrate the changes in this journal. All of these activities can be followed up by writing and illustrations. This can go in the main lesson book.

Week Three:
The third week of the block will begin with the circle. By the end of the week, children should have all of the poems and songs memorized. The third week will be a continuation of the first two. Seeds planted the first week will be up by now and children can continue their tracking of the seeds' growth in their plant journals. This is great practice for measurement skills as well as observation skills. Care of chickens can continue or of any other animals that might be on site. Another option is to visit the same farm everyday and have children work, doing different chores. IF there is a farm nearby, this could take place all through the block. The whole idea is for the students to get a real feel for the work involved on a farm, to understand the feeling of accomplishment with hard work, and to feel as if they can contribute in a practical way in the world.

Poems/Songs
Gardening Poems and songs
Farming Poems and songs
Poems and songs about farm animals

Projects
Plant a garden
Build raised beds
Keep a plant journal
Raise chickens
Become an expert on one type of chicken

Resources

1. Bair, Kimberly, *Reverence Towards the Natural World*
2. Bartholomew, Mel. *All New Square Foot Garden*
3. Chase, Richard, *Old Songs and Singing Games*
4. Cornell, Joseph, *Sharing Nature with Children*
5. Jones, Betty, *A Child's Seasonal Treasury*
6. Lockie, Beatrys, *Gardening with Young Children*
7. Santer, Ivor, *Green Fingers and Muddy Boots*
8. Sis, Peter, *Starry Messenger*
9. The Society of Brothers, *Sing through the Seasons*
10. Waters, Alice, *Edible Schoolyard*
11. Wynstones Press, *Gateways; Poems, Songs and Stories*
12. Wynstones Press, *Spring; Poems, Songs and Stories*

Third Grade – Grammar and Writing

According to Rawson and Richter, (2005), children take an important step in their development in third grade. Steiner (1923) pointed out the importance of this: "Now the child begins to differentiate more and more between himself and his environment." The main lesson can begin with nature poems that fit in with the children's feeling life. They can now memorize longer poems and can learn funny ones as well. Regarding the subject of grammar, they will be introduced to the four parts of speech, including nouns, verbs, adjectives, and adverbs. They will also work on basic sentence structure in their writing and the correct use of periods, commas, capital letters and question marks. All of this is taught imaginatively, or as Steiner said, using "living grammar". The children should learn to connect a feeling with all that they name. Furthermore, Steiner believed the children's humanness should come into play when learning grammar. For example, if one used the verb 'writing', as in "That woman is writing", the student imagines a person writing and does so with her ego just as the woman in the sentence does this with her physical body. This main lesson block can be designed like a *Writers Workshop*, where the teacher begins each class with a mini-lesson on the topic, then has children practice through writing small pieces that are then shared when finished. Children also go through the writing process during this time period.

Common Core Standards
Writing
Text Types and Purposes

2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
   a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
   b. Develop the topic with facts, definitions, and details.
   c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
   d. Provide a concluding statement or section.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
   a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
   b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
   c. Use temporal words and phrases to signal event order.
   d. Provide a sense of closure.

Language
Conventions and Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
   a. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.
   b. Form and use regular and irregular plural nouns.
   c. Use abstract nouns (e.g., childhood).
   d. Form and use regular and irregular verbs.
   e. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses.
   f. Ensure subject-verb and pronoun-antecedent agreement.
   g. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.

h. Use coordinating and subordinating conjunctions.
i. Produce simple, compound, and complex sentences.

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
   a. Capitalize appropriate words in titles.
   b. Use commas in addresses.
   c. Use commas and quotation marks in dialogue.
   d. Form and use possessives.
   e. Use conventional spelling for high frequency and other studied words and for adding suffixes to base words (e.g. sitting, smiled, cries, happiness).
   f. Use spelling patterns and generalizations (e.g. word families, position-based spellings, syllable patterns, ending rules, meaningful word parts) in writing words.
   g. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

Week One:
As mentioned in the overview of the block, begin the morning with a circle that includes poetry from nature (that reflects the season), humorous poetry, poetry about grammar (a good source for this is "A Journey Through Time in Verse and Rhyme"), and games. Then the remainder of the morning lesson can be structured like a Writers Workshop. The teacher can tell a story, possibly choosing cultural stories that were not told in the Creation block. From there, craft the mini-lesson around parts of speech. Normally one begins with nouns and verbs – first simple, then more complex (i.e. helping verbs, linking verbs, and verbs in the past, present and future tense). Drawing sentences to work with from the story helps put the study of grammar in context. There are a number of games teachers can play with students to bring the study alive. The book "Sing Me the Creation" has some great ideas as does "Teaching English" by Roy Wilkinson. Following the mini-lesson, students practice through writing sentences or paragraphs, depending on their ability level. Final products can go in the main lesson book.

Week Two:
Begin the morning with the circle, then move into a review. (Note: every main lesson should follow this pattern – always review from the previous day before moving on to new material). Again, stories can be told to start the mini-lesson, then practice on the topic/concept begins. This week will be punctuation and types of sentences. Make sure to teach in an imaginative and pictorial way. Use games and engaging activities along with drawings/illustrations in their main lesson books. Students will practice their writing and will then share at the end of the lesson.

Week Three:
This will be the final week of the block. Children should memorize all of the poetry from the circle and can use it to practice what they have learned about sentences (punctuation) and parts of speech. Begin the mini-lesson with story and then go into the teaching of adjectives and adverbs. Bring back verbs and nouns from week one and still using an imaginative, active teaching style, create games and activities for students to practice all four parts of speech. They can practice writing sentences and paragraphs, which will then go into their main lesson books along with illustrations.

Poems:
Poetry from nature
Humorous poetry

Songs:
Nature songs (seasonal)

Resources :

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Gillard, Marni, *Story Teller Story Teacher*
11. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
12. Hall, Donald, *Contemporary American Poetry*
13. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
14. Harrer, Dorothy, *Nature Ways in Story and Verse*
15. Heider, W. M. Von, *And then take Hands*
16. Holbook, Sara, *Practical Poetry*
17. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
18. King, Nancy, *Storymaking and Drama*
19. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
20. Koch, Kenneth, *Rose, where did you get that red?*
21. Martin, Michael, *The Little Series; St. Martin*
22. Matthews, Paul, *Sing Me the Creation*
23. McAllen, Audrey E., *Teaching Children to Write*
24. Mellon, Nancy, *Storytelling and the Art of Imagination*
25. Miller, Debbie, *Reading with Meaning*
26. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
27. The National Storytelling Association, *Many Voices; True Tales from America's Past*
28. The National Storytelling Association, *Tales as Tools*
29. O'Conner, Patricia T., *Woe is I*
30. Perrow, Susan, *Healing Stories for Challenging Behaviour*
31. Publications International, LTD., *Classic Children's Stories*
32. Rose, Michael, *Living Literacy*
33. Rubright, Lynn, *Beyond the Beanstalk*
34. Samson, Donald, *The Dragon Boy*
35. Streit Jakob, *The Star Rider and Anna McLoon*
36. Strunk, William Jr. and E.B. White, *The Elements of Style*
37. Verscguren, Ineke, *The Easter Story Book*
38. Whitman, Walt, *Complete Poetry and Selected Prose*
39. Williams, Oscar, *The New Pocket Anthology of American Verse*
40. Wilkinson, Roy, *Teaching English*
41. Wynstones Press, *Autumn; Poems, Songs and Stories*
42. Wynstones Press, *Gateways; Poems, Songs and Stories*
43. Wynstones Press, *Spring; Poems, Songs and Stories*
44. Wynstones Press, *Summer; Poems, Songs and Stories*
45. Wynstones Press; *Winter; Poems Songs and Stories*
46. Zaid, Gabriel, *So Many Books*

Third Grade – Shelters

The third grade child is in the midst of a great change. They are leaving the unified world of early childhood and are stepping into a world where they begin to feel separate. They sometimes feel very alone at this age and it is thus important for the teacher and the curriculum to make them feel and know that they are still part of the beautiful world and that they are capable of doing great, practical work *in* the world. The study of shelters – types as well as how to build shelters – is a part of this block. The teacher can approach this study from a number of different perspectives. Literature regarding types of shelters, both fiction and non-fiction, can be integrated and students should definitely build a real-life practical structure – whether it be a playhouse for the playground, a picnic shelter, or a chicken coop – they need to be "of use" and know that they can do practical work that can be helpful to others. Teachers should also integrate the mathematics topics of measurement and fractions into this block so students have a chance to apply their knowledge in a real-world manner.

Common Core Standards – Mathematics
Number and Operations – Fractions

1. Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
   a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based on 0 locates the number 1/b on the number line.
   b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
   a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
   b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
   c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.*
   d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Measurement and Data

4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.
5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
   a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
   b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
7. Relate area to the operations of multiplication and addition.
   a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

English Language Arts - Reading Standards for Literature
Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
2. Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson or moral and explain how it is conveyed through key details in the text.
3. Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
5. Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.
6. Distinguish their own point of view from that of the narrator or those of the characters.

Integration of Knowledge and Ideas

7. Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).
8. Not applicable
9. Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g. in book from a series).

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend literature, including stories, dramas, and poetry at the high end of the grades 2-3 text complexity band independently and proficiently.

Reading Standards for Informational Texts
Key Ideas and Details

1. Ask and answer questions to demonstrate understanding of a text, referring explicitly to text as the basis for the answers.
2. Determine the main idea of a text; recount the key details and explain how they support the main idea.
3. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Craft and Structure

4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.
5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.
6. Distinguish their own point of view from that of the author of a text.

Integration of Knowledge and Ideas

7. Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).
8. Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence).

9. Compare and contrast the most important points and key details presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

10. By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Foundational Skills

Phonics and Word Recognition

3. Know and apply grade level phonics and word analysis skills in decoding words.
   a. Identify and know the meaning of the most common prefixes and derivational suffixes.
   b. Decode words with common Latin suffixes.
   c. Decode multisyllabic words.
   d. Read grade-appropriate irregularly spelled words.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
   a. Read on-level text with purpose and understanding.
   b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
   c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Week One:

During this first week, begin the block with a morning circle that consists of music, poetry, and movement, drawing upon sources that contain building poems and songs and poetry and music about houses and other types of shelters. The "Little House" series would be appropriate fictional reading material for reading groups or literature circles. Students can also begin researching and learning about different types of shelters, from caves to teepees to log cabins. Setting their sites on a final individual shelter project (model) would also begin during this first week. Thus, reading, hearing stories about people from long ago and how and where they lived, researching a particular type of shelter for an individual project and entering illustrations and summaries in their main lesson books, all round out the first week of this block.

Week Two:

Week two's focus will be on the design of the shelter or structure that the children will build. The main lesson will still begin with the morning circle and followed by a review from the previous week. At the beginning of the week, students will decide with the teacher what type of structure they will build. This will depend on the space where the school is located and whether or not a permanent structure can be built there. Some ideas for building projects include a garden shed, a playhouse, a picnic shelter, a greenhouse, picnic tables, and raised beds for the garden. This list is definitely not exhaustive. Once the structure has been decided, let students brainstorm what they think the structure needs i.e. size, materials, tools and aesthetics. If the teacher is not knowledgeable about design, bring in a guest who can lead the class through that process. Make the design on the board or on big graph paper, then have the students make it on smaller graph paper. Make sure to integrate in math concepts, such as measurement, area, perimeter, and fractions. A budget can also be created for the project. Students can write about this process, practicing their informative/explanatory writing or narrative writing, where they might write about imagined/ideal structures. The "Little House" books can also be part of the morning lesson.

Week Three:

This is the week where the actual building takes place. Teachers will most likely need to invite other adults to help out during this time. It is ideal to have one adult working with small groups of 3-4 students. That way everyone can have a task and feel useful. (this also helps with classroom management!) It is still helpful to start the morning with the circle in order to keep the rhythm of the main lesson similar. Then students can have time to work outside on the project. After they come in, students can write and/or draw about the experience. They can also use this time to work on their shelter projects. At the end of the week, celebrate with family and other classes. Invite them to see the finished structure (if it is indeed finished) and to see their shelter projects.

Poems
To Build a House

Songs
Work songs or building songs

Projects
Shelter project
Structure project

Resources

1. Baker-Laporte, Paula & Robert. *Eco Nest: Creating Sustainable Sanctuaries of Clay, Straw, and Timber*
2. Bartholomew, Mel. *All New Square Foot Gardening*
3. Curtis, Natalie, *The Indian's Book*
4. *Building Garden Sheds*
5. Rawson, M. & Richter, T. *The Educational Tasks and Content of the Steiner Waldorf Curriculum*

Third Grade – Class Play

This block will be up to the teacher to arrange. Class plays are entirely dependent upon the children in the class. The play must be chosen to meet the developmental and social needs of the students. It is appropriate to set aside three weeks to work on the play. Children can first be introduced to the play, then they will read through it, then parts will be assigned and practice begins. Students can also work on scenery, invitations, and costumes. This is another block where parent volunteers are greatly appreciated.

Resources:

1. Schwartz, Eugene, *Plays for Children and Communities*
2. Ward, William, *Hawthorne Valley Harvest; A Collection of Plays for the Elementary Grades*

Third Grade – Time and Money

In third grade the mathematics curriculum is geared toward the practical in thematic instruction through gardening and building projects as well as learning to tell time and learning skills to deal with money. When first working with the concept of time, it is important to start with comparison activities. In other words, begin by comparing events that have different time durations, but make sure it is imaginative. After this, students learn to read clocks – first the analogue clock, then the digital. Following this, they learn about elapsed time. The study of money includes a number of skills typically required for students to learn. These are; recognizing coins, identifying and using the values of coins, counting and comparing sets of coins, creating equivalent coin collections (same amounts, different amount), selecting coins for a given amount, making change, and solving word problems including money. Again, make this study of money practical, yet imaginative. Create a classroom store, sell produce from the school garden, collect eggs from the school's chickens and sell them – In this way, students will learn the real value and joy of understanding money.

Common Core Standards

Measurement and Data – Third Grade
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Measurement and Data – Second Grade

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

Week One:
During this first week of the block, students can begin the main lesson with a morning circle. Songs, poems, and movement activities surrounding the concept of time will be included. "A Journey Through Time in Verse and Rhyme" is an excellent resource for poetry. Movement and games that include the children forming a human clock for example, should also be a part of the circle. As mentioned above, begin the study of time with comparisons of durations of events/times. Use imagination and creativity to bring this concept alive for the children. Riddles are also a good way to engage the children in this study. Mental math can be used to help children with elapsed time and problem solving should also be included in this block. Roy Wilkinson's book "Teaching Mathematics to Age 14" and Dorothy Harrer's "Math Lessons for Elementary Grades" both have great ideas for teaching time. Make the study artistic as well. If making clocks, make them beautiful (i.e. DO NOT use paper plates). The children's main lesson books will include story problems, equivalencies (e.g. 60 sec = 1 min) and illustrations.

Week Two:
Start this week with the circle, but add poems and songs about money and movement activities that involve money as well. Review last week's study of time, and bring in mental math and problem solving again. Concepts to cover with money include coin recognition, identifying and using the values of coins, counting and comparing sets of coins, and creating equivalent coin collections (same and different

amounts). As mentioned in the introduction, make sure to bring creativity into the study and have the children do practical, real-world activities with money, such as creating a store in the classroom or selling produce or eggs from the garden/farm. Include formulas and equivalencies in the main lesson book, story problems, and illustrations.

Week Three:
During the third week, the study of money is concluded. The main lesson starts again with the circle, followed by mental math and problem solving. Conduct a solid review of last week's concepts before continuing onto the concepts of this week. This week's concepts include selecting coins for a given amount, making change, and solving word problems including money. Skip counting is a natural way to help with counting money, and since students have been skip counting since first grade, this should be a nice way to reinforce the counting of money. Continue with practical activities and main lesson book entries.

Songs:
Choose any songs that focus on money, commerce, or economics

Poems:
A Journey Through Time in Verse and Rhyme

Projects:
Class Store

Resources:

1. Andersen, Henning, *Active Arithmetic!*
2. Axelrod, Amy. *Pigs Will be Pigs: Fun with Math and Money (series)*
3. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
4. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Murrie and Murrie. *Every Minute on Earth: Fun Facts that Happen Every 60 Seconds*
8. Wilkinson, Roy, *Teaching Mathematics to Age 14*
9. Wilkinson, Roy, *Teaching Mathematics*

Third Grade – Place Value and Higher Level Algorithms

Third grade students are now at the point in their mathematics career to take their understanding of place value to include up to the thousands place. In the area of algorithms, students are ready to begin working with higher level algorithms. What this means is adding larger numbers together, subtracting larger numbers (within 1,000) and learning the fine art of regrouping, multiplying two-digit numbers times a one-digit number and dividing a two digit number by a one digit number, as well as multiplying one digit numbers by multiples of ten. Students also learn the commutative and associative properties in multiplication and division. Furthermore, students will develop their algebraic thinking by finding unknown numbers in one-digit number sentences. (i.e. 8 x ? = 48). It is important to use imagery, through stories and real-world problem solving and to offer hands-on experiences for children through manipulatives. Using color and alternative algorithms also helps students who might struggle with these concepts. Finally, third grade mathematics concepts are further supported through whole-body movement activities, music, art, and poetry.

Common Core Standards

Operations and Algebraic Thinking – Third Grade

1. Interpret products of whole numbers, e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5 x 7.*
2. Interpret whole- number quotients of whole numbers, e.g. interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 X ? = 48, 5 = ÷ 3, 6 X 6 = ?.*
5. Apply properties of operations as strategies to multiply and divide.2 *Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)* Students need not use formal terms for these properties.
6. Understand division as an unknown-factor problem. *For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.*
7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. This standard is limited to problems posed with whole numbers and having whole-number answers; student should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

Number and Operations in Base Ten – Third Grade

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations.

Week One:
The focus of this week should be place value and problem solving using "?" for an unknown number in a number sentence. The main lesson should begin, as always, with a morning circle. Students can practice their multiplication and division basic facts through movement (clapping, bean bags, etc) and recitation and can also work with place value concepts through movement and activities. First, the teacher should review place value to the hundreds place before adding the thousands place into the mix. Students can paint place value mats that now include the thousands place and use base 10 blocks to go from the concrete to the semi-concrete and finally to the abstract. Mental math and problem solving should also be part of this block. Mental math can include number sentences with missing numbers as can problem solving. Try to use real world problems and storytelling to create images for the children. Using color in place value assignments and problem solving as well as pictures helps children remember and engage in the activities.

Week Two:
During the second week, the morning circle should include basic addition and subtraction facts as well as multiplication and division basic facts. Students will begin the week with a review of place value before delving into adding larger numbers within 1000 and then subtracting larger numbers within 1000. Stories and images help students remember and engage in the process and the use of manipulatives can also aid students in understanding higher level algorithms – in this case Base 10 blocks. Alternative algorithms can also be introduced to the students before teaching them the traditional algorithm for adding larger numbers and subtracting (regrouping) larger numbers. The latest edition of the book "Helping Children Learn Mathematics" by Reys, Lindquist, Lambdin, and Smith has a number of alternative algorithms that can be especially helpful to children. Continue to use mental math and problem solving as well as color and images.

Week Three:
Week three should begin with the circle, just as weeks one and two did. Focus on basic facts to 144 in multiplication and division as well as multiplying whole numbers by multiples of 10. Mental math and problem solving should follow the circle. It is now time to introduce the multiplication of a two-digit number by a one-digit number. Again, using alternative algorithms can help students get a feel for the process, as can using arrays and graph paper (use cm graph paper or larger for this age child). Following the introduction of the higher level multiplication algorithm, introduce the division algorithm. Marilyn Burns has an excellent way to introduce the division of a two or three digit number by a one digit number using base 10 blocks. This method is available on youtube at the following two addresses:
http://www.youtube.com/watch?v=8IXAqXGDMXw&noredirect=1
http://www.youtube.com/watch?v=T-GLG5634Qo
Make sure to use stories, images, color, and manipulatives to help children better learn the concepts. Main lesson books can contain pictures from story problems, rules, drawings from alternative algorithms, and summaries of stories.

Poems
5s Clapping Poem

Songs

3, 6, 9

Activities
Bean Bag Times Tables
Clapping Times Tables
Times Table Orchestra

Resources

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Burns, Marilyn http://www.amazon.com/Lessons-Introducing-Division-Teaching-Arithmetic/dp/094135542X/ref=sr_1_3?ie=UTF8&qid=1362604950&sr=8-3&keywords=marilyn+burns+division
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Murrie and Murrie. *Every Minute on Earth: Fun Facts that Happen Every 60 Seconds*
8. Reys, Lindquist, Lambdin, & Smith, *Helping Children Learn Mathematics*
9. Van de Walle, Karp, & Bay-Williams, *Elementary and Middle School Mathematics*
10. Wilkinson, Roy, *Teaching Mathematics to Age 14*
11. Wilkinson, Roy, *Teaching Mathematics*

Third Grade – Cooking, Sewing and other Trades

In third grade, the practical arts are at the forefront of the curriculum. Through blocks such as farming/gardening and shelters/house building, students are literally brought down to earth. Participating in this block on cooking, sewing, and other trades, which is tailored to the children's age and capabilities, the students are taught "long-term pedagogical elements that prepare them for later insight into economics and ecology" (Rawson and Richter, 2005, p. 39). This particular block can connect to a number of academic subjects, such as mathematics, science, history and language arts. Depending on the school's connection with local farms, children can participate in activities where they learn about the source of their food/clothing and follow the source to an actual product of their making. This connection with the source helps garner an appreciation for the natural world and all that it has to offer. It also gives children a real sense of accomplishment. (Note: Due to the hands-on nature of this block, it would be wise to recruit parent help for the next 3 weeks)

Core Content

Mathematics- Measurement and Data – Third Grade

2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units – whole numbers, halves, or quarters.

Writing Standards – Third Grade
Text Types and Purposes

2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
   a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.
   b. Develop the topic with facts, definitions, and details.
   c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.
   d. Provide a concluding statement or section.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
   a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
   b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
   c. Use temporal words and phrases to signal event order.
   d. Provide a sense of closure.

Idaho State Science Standards
Science, Life and Environmental, Performance Standards F Grade 4
By the end of **grade four**, students will:
THE CHARACTERISTICS OF ORGANISMS

- F.4.1 Discover* how each organism meets its basic needs for water, nutrients, protection, and energy* in order to survive.

- F.4.2 Investigate* how organisms, especially plants, respond to both internal cues (the need for water) and external cues (changes in the environment)

LIFE CYCLES OF ORGANISMS

- F.4.3 Illustrate* the different ways that organisms grow through life stages and survive to produce new members of their type

ORGANISMS AND THEIR ENVIRONMENT

- F.4.4 Using the science themes*, develop explanations* for the connections among living and non-living things in various environments

Content Standard Science Standard F - Life and Environmental Science
Content Standard: Students in Idaho will demonstrate an understanding of the characteristics and structures of living things, the processes of life, and how living things interact with one another and their environment.
Note: For more details of the content of life and environmental sciences, see National Science Education Standards* *(1996, p. 115 - 201).*
Rationale
Students will enhance their natural curiosity about living things and their environment through study of the structure and function of living things, ecosystems, life cycles, energy movement (transfer), energy change (transformation), and changes in populations of organisms through time. Knowledge of these concepts and processes of life and environmental science will assist students in making informed choices regarding their lifestyles and the impact they have on communities of living things in their environment.

Social Studies Standards - Performance Standard D Grade 4
Economics
By the end of grade four, students will:

- D.4.1 Describe and explain of the role of money, banking, and savings in everyday life
- D.4.2 Identify situations requiring an allocation of limited economic resources and appraise the opportunity cost (for example, spending one's allowance on a movie will mean less money saved for a new video game)
- D.4.3 Identify local goods and services that are part of the global economy and explain their use in Idaho
- D.4.4 Give examples to explain how businesses and industry depend upon workers with specialized skills to make production more efficient
- D.4.5 Distinguish between private goods and services (for example, the family car or a local restaurant) and public goods and services (for example, the interstate highway system or the United States Postal Service)
- D.4.6 Identify the economic roles of various institutions, including households, businesses, and government
- D.4.7 Describe how personal economic decisions, such as deciding what to buy, what to recycle, or how much to contribute to people in need, can affect the lives of people in Idaho, the United States, and the world.

Content Standard Social Studies Standard D - Economics: Production, Distribution, Exchange, Consumption
Content Standard: Students in Idaho will learn about production, distribution, exchange, and consumption so that they can make informed economic decisions.

Rationale
Individuals, families, businesses, and governments must make complex economic choices as they decide what goods and services to provide and how to allocate limited resources for distribution and consumption. In a global economy marked by rapid technological change, students must learn how to be better producers, consumers, and economic citizens. In Idaho schools, the content, concepts, and skills related to economics may be taught in units and courses including economics, history, government, global studies, and current events.
Note: additional information for developing a curriculum is available in:
Curriculum Standards for Social Studies. The National Council for the Social Studies Publications, P.O. Box 79078, Baltimore, MD 21279-0078 (1-800-683-0812)
National Content Standards in Economics. The National Council on Economic Education, 1140 Avenue of the Americas, New York, NY 10036 (1-800-338-1192)

Week One:
This week could start differently than many blocks, in that the teacher might arrange for students to visit a local farm with sheep. The activity, commonly referred to as "Sheep to Shawl", is perfect for third graders. Students visit the farm when the sheep need to be sheared. They participate in shearing the sheep and can then take the wool through the stages from washing it, to carding, to spinning to dying (using natural plant dyes) to actually making something of use from the wool. Often times third graders make flute cases, potholders, net shopping bags, etc. As part of this practical activity, students will use measurement skills and can also write about the process in their main lesson books. Writing about their own practical work is an excellent way to practice "how to" pieces (informative/explanatory texts).

Week Two:
Students can focus on cooking in the second week of this block. Again, they can visit a farm, try their hands at milking a cow, gather eggs from chickens, harvest vegetables from the school garden or a local garden, and then put it all together into delicious meals. From the milk, students can make butter. They can learn how to make yogurt, sour cream and cheese. Students can learn to prepare simple dishes, such as scrambled eggs or a salad. They can get wheat in its pure form and see how the wheat is separated from the shaft in order to make flour. From here, they can learn to make bread. This is a week for students to be totally immersed in cooking and sampling their creations. There is nothing better than eating something that one has cooked. In the process of cooking, students practice the math skills of fractions and measurement and the language arts skills of reading. By tracing the food items to their source, children learn about economics and science. Again, they can write about these experiences in their main lesson books. Children can create recipes and even cookbooks.

Week Three:
During this week students can study a number of other trades, such as glass blowing, woodworking, shoe repair, plumbing, etc. The teacher can bring in guest speakers or take the children on field trips. Stories can be told about the origin of the trade – what it looked like back in the time of the craft guilds and how families even got their last names depending on their trade (such as Smith, Miller, Baker). Students can do mini-projects, where they work with the tools of a trade. There are many books available that students can read. They could read books that captured their interests, then do short reports on their books. Entries in the main lesson book could take the form of pictures of the trades, a short essay about the trade, and the children's opinion about the trade.

Week Four:
When children create, it is always good to have an audience. This makes the time spent seem more real to them. The third week can be spent in any number of ways. Children could sell their wares and raise money for a worthy cause. The study of economics can enter in here. They could also have a bake sale or they could plan a meal for parents. It is amazing how productive children can be when they are

motivated. The teacher can use the economics piece to create real-world story problems for the children to solve. The problems should be ones that relate to their current ability level and study of mathematics. Writing about sewing and knitting could take the form of a class "How To" book, with illustrations and short essays about their experiences. All in all, this week should be the culmination of what they children learned and created during the first two weeks of the block.

Projects
Flute cases
Crayon/colored pencil holders
Shopping bags
Pot holders
Cook books
Recipe cards
Fund raiser
Woodworking projects suitable for 3rd grade

Resources

1. Berger, Thomas, *The Christmas Craft Book*
2. Berger, Petra and Thomas Berger, *The Easter Craft Book*
3. Berger Thomas, *The Harvest Craft Book*
4. Berger, Petra, *Feltcraft; Making Dolls, Gifts and Toys*
5. Livingston, Patricia and David Mitchell, *Will-Developed Intelligence*
6. Lockie, Beatrys, *Gardening with Young Children*
7. Santer, Ivor, *Green Fingers and Muddy Boots*

Fourth Grade

As the fourth grade child moves through the nine year change, a noticeable change occurs in her ability to do more focused, academic work. There is a heightened interest in the details of the stories (which is one reason why the Norse Myths are so interesting for them). Students should be capable of reading novels and non-fiction. They are also now capable of looking at academic subjects from a new perspective. For example, fractions are introduced in detail, because the students can now envision the taking apart of objects and how these parts are fractional pieces. Geography is new subject this year and students begin the study from a personal perspective (their home, classroom, school) and then move out to study the greater community, and finally the state. Writing short essays and stories is now possible and students are expected to use correct grammar, punctuation, spelling and sentence structure. The fourth graders experiences his first "real" science block (outside of nature studies) with a very detailed study of animals. All in all, the fourth graders has entered into a new phase of schooling and has confidence to do the work expected of him.

4th Grade Block Rotation (Blocks are 3-4 weeks long)

- Norse and Finnish Mythology
- Review/Higher Level Algorithms/Long Division/Factoring/Averaging
- Local Idaho Geography and Map Making
- Human and Animal (Zoology)/Animals in their Environment
- Fractions I
- Class Play (Drama)
- Grammar/Spelling and Punctuation
- Fractions II/Decimals
- Idaho Local/State History

Fourth Grade - Norse and Finnish Mythology

The fourth grade focus on citizenship, perseverance, problem solving, industry, and craftsmanship, guides the literacy and language arts focus. Students move from the law-driven creation stories from third grade to the coarse, rough and ready world of the Norse Myths. The Norse stories present a picture of evolution, of the creation and development of humankind as well as humankind's struggle with adverse powers, the fading of the old world "way of being" and the inward strength that leads to new powers of perception. They also show that out of catastrophe comes new hope and new life. Teachers can draw their narrative content and reading material from the Icelandic epic, *The Edda*, as well as from Roy Wilkinson's, *The Norse stories and their Significance* and (ask Donna). Students speak alliterative poetry from Norse and Finnish mythology, which helps to strengthen their will. The strong language and alliteration helps center the children and helps them stand firmly in life and the memorization and recitation helps develop strong public speaking skills. Narrative writing, summary writing, and informational writing are all explored. Finally, the imaginative pictures inherent in the Norse myths help strengthen the students' sense of right and wrong and are eminently suitable for the 10-year-old child.

Common Core Standards

Language

Knowledge of Language

3. Use knowledge of language and its conventions when writing, speaking, reading or listening.
    a. Choose words and phrases to convey ideas precisely
    b. Choose punctuation for effect.
    c. Differentiate between contexts that call for formal English and situations where informal discourse is appropriate.

Writing

Text Types and Purposes

3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.
    c. Use a variety of transitional words and phrases to manage the sequence of events.
    d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
    d. Provide a conclusion that follows from the narrated experiences or events.

Week One:

During the first week of this block, students are introduced to the Creation of Asgard and Midgard out of the "yawning void" known as Ginnungengap. The gods are introduced and all of the characters. Each day students hear a new tale. They start the main lesson as always, with circle work, filled with poetry (from Norse mythology), songs, and movement. This is followed by a review, where students practice retelling the story, using rich vocabulary and building on their sequencing and memory skills. After hearing the new story, they work on different forms of reading and writing as well as illustrations. On some days students read short accounts of Norse myths, while other days they write narratives from the spoken word. Written and oral conventions of language (sentence structure, paragraph structure, punctuation, capitalization and spelling) are practiced regularly in student writing. Illustrations of scenes from the Norse myths are entered in their main lesson books along with examples of their best writing.

Week Two:

Stories told by the teacher from Norse mythology continues and students learn more about the world of Asgard. The morning circle work featuring poetry, music and movement all related to this block helps children experience Norse myths through other learning styles. Writing, reading, and illustrating continue as well. Vocabulary development is done through skits, language experiences and weekly dictation. Additional development of spelling occurs through word analysis, word recognition, and fluency. Students continue reading on their own, with more readings drawn from Norse mythology. Students use these texts to strengthen their comprehension skills, including looking at text structures and the structure of the author's argument or thesis. They learn these skills through classroom discussion during the main lesson period.

Week Three:
The teacher should wrap up the Norse myths this week and share selections from Finnish Mythology. Students will have the opportunity to compare and contrast the stories through writing, speaking and illustrating. Poetry learned in the block will be recited individually and students will also create reading responses through book reports, all of which can be shared with their classmates.

Poetry
Poetry can be found in "A Journey Through Time in Verse and Rhyme"

Music
Old Father Odin

Projects
Book Reports
Poetry Recitations

Resources

1. Crossley-Holland. *The Norse Myths*
2. Green, Lancelyn. *Myths of the Norsemen*
3. Guerber, *The Norsemen*
4. Keary, *Heroes of Asgard*
5. Mackenzie, *Tehtonic Myths*

Fourth Grade – Math Block – Higher Level Algorithms

Continued practice of the four processes in a variety of formats using higher level algorithms keeps mathematical reasoning sharp and basic computational facts fresh. Students work with numbers into the millions, thus expanding their understanding of place value. Students also work with mental math and problem solving in this block. Students learn higher level algorithms through story and hands-on activities. Alternative algorithms are introduced in order to teach children the process of the algorithm as well as to offer other ways for students to solve problems. Manipulatives are also used in order to help children learn the algorithms from whole to part, or from concrete to semi-concrete to the abstract algorithm. Fourth graders are now capable of more independence in their work and are ready for concrete knowledge in the form of multiplication and division of higher numbers.

Common Core Standards:

Operations and Algebraic Thinking – Fourth Grade
Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g. , interpret 35 = 5 x 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Number and Operations in Base Ten
Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. *For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.*
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
3. Use place value understanding to round multi-digit whole numbers to any place.

Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Week One:

Students begin this block with a circle that practices basic facts through movement with bean bags, clapping exercises, poetry, and songs. Memorization of the basic facts (x and \) is critical for students to have success in this block. Following the morning circle, students practice mental math and problem solving strategies. They then move into working with place value, using manipulatives (base 10 blocks) and games before moving into more abstract (paper and pencil) work with place value. It's important for students to have a strong understanding of place value and large numbers (in the millions) before moving into the multiplication and division algorithms. Experiences with the meaning of large numbers through stories and practical examples help make this concept more concrete.

Week Two:
The second week of this block begins as the first one did, with the practice of basic facts during morning circle. This is again followed by mental math practice and problem solving. It is important for children to learn the problem solving strategies and to work with problem solving strategies regularly. During week two, students focus on learning alternative algorithms as well as the traditional algorithm for multiplication. Lattice multiplication, arrays, and expanded notation can all be practiced using colored pencils and graph paper. This helps children understand the process of multiplication and gently leads them from semi-concrete to the abstract algorithm. Once they are introduced to the standard multiplication algorithm, they can see how much faster the process takes place.

Week Three:
During the third week of the block, students continue the morning circle practice followed by mental math and problem solving. This week long division is introduced. Fourth graders are expected to be able to divide a four digit number by a one digit divisor. Again, start with the concrete and show students how to divide using base 10 blocks. Stories with images can also help children remember the algorithm. Following work with base 10 blocks, the teacher should introduce alternative division algorithms and then lead students to the traditional algorithm. Children should illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Movement:
Clapping times tables and division basic facts
Bean Bag times tables and division basic facts
Movement with square numbers (see "Math Lessons for Elementary Grades")

Resources:

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Rawson, Martyn and Richter, Tobias. *The Educational Tasks and Content of the Steiner Waldorf Curriculum*
8. Stockmeyer, Karl, *Rudolf Steiner's Curriculum for Waldorf Schools*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

4th Grade Block - Local Idaho Geography and Map Making

The fourth grader is industrious and busy, full of energy, and easily directed to the making of maps of the state of Idaho, its landforms, waterways, flora and fauna. As in the Waldorf tradition, however, 4th grade students learn geography and map making from whole to part. That is, they begin by making maps of where they live - of their classroom, bedroom, school, and neighborhoods. They learn about the local history and of the people who once lived in their area. From this beginning, they work out into the world, first to their town, then to their state. The study of native people through story helps children learn about the history of Idaho. Field trips to local parks and important landforms and waterways in the state give students a hands-on experience of where they live.

Idaho Academic Standards
Social Studies Performance Standard A Geography, Grade 4
By the end of grade four, students will:

- A.4.1 Use reference points, latitude and longitude, direction, size, shape, and scale to locate positions on various representations of the earth's surface.
- A.4.2 Locate on a map or globe physical features such as continents, oceans, mountain ranges, and land forms, natural features such as resources, flora, fauna; and human features such as cities, states, and national borders.
- A.4.3 Construct a map of the world from memory, showing the location of major land masses, bodies of water, and mountain ranges (this should be in 5th grade)
- A.4.4 Describe and give examples of ways in which people interact with the physical environment, including use of land, location of communities, methods of construction, and design of shelters (this is a 3rd grade standard)
- A.4.5 Use atlases, databases, grid systems, charts, graphs, and maps to gather information about the local community, Idaho, the US and the world.
- A.4.6 Identify and distinguish between predictable environmental changes, such as weather patterns and seasons and unpredictable changes, such as floods, and droughts, and describe the social and economic effects of these changes. (this should be in 8th grade)
- A.4.7 Identify connections between the local community and other places in Idaho, the US, and the world
- A.4.8 Identify major changes in the local community that have been caused by human beings, such as a construction project, a new highway, a building torn down, or a fire; discuss reasons for these changes; and explain their probable effects on the community and the environment.
- A.4.9 Give examples to show how scientific and technological knowledge has led to environmental changes, such as pollution prevention measures, air-conditioning, and solar heating.

Week One:
During the first week of this block, students begin the study of geography through mapmaking. They make maps of their classroom and for homework, make maps of their bedrooms. They map the school and the local neighborhood. Students learn about mapmaking by becoming cartographers. They learn to make the compass rose, to title their maps, and to make legends. Many different types of maps should be experienced in this block, from 2-D paper and colored pencil maps and water color painted maps, to 3-D salt clay maps and living maps. David Sobel's "Mapmaking with Children" is an excellent resource for this block. In addition to making and studying maps and the local geography, students learn songs and poems about where they live. They also hear stories about local history and in turn write essays in their main lesson books.

Week Two:

The second week of this block brings children further away from home. They study their town, county, and the region where they live in their state. Students continue with mapmaking, and create maps of their town/city, county and region of their state. They hear stories about the region of their state and continue writing essays in their main lesson books. Students can learn about changes in their local community and region that have taken place over time and how these changes affect the community and the environment.

Week Three:
During this week and next week students learn about the geography of the state. They study the early landforms (prehistoric) and learn about the glaciers and their impact on the state. They learn about the original inhabitants of Idaho, where they came from and how they lived. Students hear stories about Native Americans and their way of life as well as their contributions to our current way of living. They learn about early explorers of the state through story and biography and map their travels through the state. Students make maps of the state, including physical maps, political maps that show where natural resources come from. Again, these maps should be of all types, including 2-d, made using colored pencils and water color paints as well as 3-d, where students create landforms using salt clay or other modeling materials.

Songs
Canoe Song
Land of the Silver Birch
Idaho state song

Poems
Any poems that have mention of geographical features from the state

Projects
Mapping projects

Resources

1. Brierley, David L., *In the Sea of Life Enisled*
2. Curtis, Natalie, *The Indian's Book*
3. Jayasuriya, Erica, *Traditions*
4. Lindenberg, Christoph, *Teaching History*
5. Mitchell, David, *Teaching History through the Grades*
6. Querido, René M.,*Geography and Man's Responsibility for the Earth*
7. Sobel, David, *Mapmaking with Children*
8. Sobel, David, *Place-Based Education*
9. Streit, Jakob, *And There Was Light*
10. Ulin, Bengt, *Finding the Path*
11. Wilkinson, Roy, *Teaching Geography*

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Fourth Grade - Human and Animal

Through imaginative lessons, the teacher should meet the growing interest of the children in more concrete areas of knowledge and provide them with opportunities for more independence in their work. Thus, the study of life science, particularly zoology, gives fourth graders something to sink their teeth into. The focus of this main-lesson is to show children the unique qualities of the human being, which is to an extent, free from the instinctive behavior of animals. Animals, on the other hand, do live instinctively and have special features that help them adapt in their environment. With guidelines supported by the Common Core Standards, the relationship of humans to animals is explored in-depth. Various species of animals are studied, drawn in detail, and written about. Students learn how to observe and describe similarities and differences in the appearance and behavior of animals. The fourth grader will see, for example, that the senses are particularly acute in the mouse, whereas the head is emphasized in the octopus, the limbs in the star fish, and the metabolic system in the cow. Students will learn how to identify anatomical features of animals and will learn to infer what animals eat by the shapes of their teeth. Deep instruction regarding the structures of animals with respect to growth, survival and reproduction is studied in 4th grade. Students study the food chain and learn that plants are the primary source of matter and energy entering most food chains. They deepen their understanding of the roles of producers and consumers, herbivores, carnivores, omnivores and decomposers in food chains and webs and learn how these roles may compete with each other for resources in an ecosystem. The interdependence of living organisms and their roles in the environment for survival are studied. Above all else, however, the children need to gain a feeling for what is truly human through having an upright body, the hands free to do good deeds in the world, and the power of speech and self -awareness.

Idaho Standards – Content Standard Science Standard
Life and Environmental Science Content Standard
Students in Idaho will demonstrate an understanding of the characteristics and structures of living things, the processes of life, and how living things interact with one another and their environment.
Rationale
Students will enhance their natural curiosity about living things and their environment through study of the structure and function of living things, ecosystems, life cycles, energy movement (transfer), energy change (transformation), and changes in populations of organisms through time. Knowledge of these concepts and processes of life and environmental science will assist students in making informed choices regarding their lifestyles and the impact they have on communities of living things in their environment.

Week One:
This study of animals and the human being occupies a special position in the curriculum. The method of teaching changes to one of observation and interpretation. Of course stories, poems, artwork and poetry are still included in the block. During the first week, teachers should introduce the main forms of different animals by discussing and observing an animal or two each day in depth and comparing it to the human body. The classic animals to study in this first week are animals familiar to the children, the mouse, the lion, dog, the cow, and the elephant as well as those that are unfamiliar, such as such as the cuttlefish (similar to the octopus), snail, and sea urchin. With each animal, teachers should have children look at pictures (or at the real animal whenever possible!!), observe the form of the animal and discuss their observations in detail. Teachers can then give facts about the animals and students should draw and write about them. It is important to continually compare and contrast the human with the animal, looking at different animal limbs, for example, and how they compare with the human's limbs. Using Roy Wilkinson's book "Man and Animal: A Study for Children Aged 10", will greatly help guide teachers through this block.

Week Two:

During this week, it is important to study animals which reflect fundamental soul qualities and inner faculties, such as the eagle's perspective from the heights, the bull's power of will and the balance of strength, grace, and fearlessness in the lion (Rawson and Richter, 2005). It is also important to bring examples of how the limitations of the human body are balanced by technological and cultural achievements and then compare this to the instinctive behavior of what, for example, a beaver and bird can achieve. Teachers can also move the study to birds and fishes this week and should remember to use poetic descriptions in her lessons. Using Rudyard Kipling's "Just So Stories" is a fun, imaginative way to bring to life this study. Observations, drawings, and writing continue, as well as music, poetry, 3-d constructions (using clay and beeswax) and water color paintings, all which help students better understand and gain a real feeling for the animals.

Week Three
Using what the students have learned in the past two weeks, it is now time to apply this knowledge by moving the study to food chains and food webs, animal producers and consumers and the interdependence of living organisms and their roles in the environment for survival. Excellent resources for this part of the block include the Department of Natural Resources "Project Wild" and "Project Wet". Students will end this unit by researching and writing a report about an animal of their choice.

Poems:
Tyger Tyger (William Blake)
How Doth the Little Crocodile (Ogden Nash)
The Eagle (Tennyson)
The Mouse (Imes)

Songs:
Grasshoppers Three

Stories
Just So Stories

Movement Exercises
Move in Time (Squirrels, Birds, Elephant)
Zoo Exercises

Resources:
Wilkinson, Roy, *Man and Animal: A Study for Children Aged 10*

Fourth Grade - Fractions I

The fourth grade child is in the midst of the nine-year change. They are becoming more self-confident as their perception of the world sharpens, but at the same time their experience of separation from their surroundings can at times be painful. The children begin to form their own personality in response to Because the fourth grade child no longer sees the world as exhibiting a magical wholeness, it is the perfect time to introduce fractions. In this block, students are introduced to an in-depth, introductory study of fractions through story, poetry, movement, music, art, and hands-on activities. Students first learn about fractions in a concrete, pictorial manner. They do this through cutting up apples, baking and cutting pies and pizzas, and creating parts of a whole. They experience fractions as part of a whole, then from part to whole, they learn equivalent fractions, improper fractions, and mixed numbers.

Common Core Standards
Number and Operations – Fractions - Third Grade
Develop Understanding of Fractions as Numbers

1. Understand a fraction 1/b as a quantity formed by one part when a whole is partitioned into *b* equal parts; understand a fraction as a/b as the quantity formed by *a* parts of size 1/b.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
    a. Represent a fraction 1/b on a number line diagram by defining the interval from 0-1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/b and that the end point at the part based at 0 locates the number 1/b on the number line.
    b. Represent a fraction a/b on a number line by marking off *a* lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates then number a/b on the number line.
3. Explain the equivalence of fractions in special cases and compare fractions by reasoning about their size.
    a. Understand two fractions as equivalent (equal) as if they are the same size or the same point on the number line.
    b. Recognize and generate simple and equivalent fractions; e.g. ½ = 2/4, 2/3 = 4/6. Explain why the fractions are equivalent, e.g. by using a visual equivalent fraction model.
    c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. E.g. express 3 in the form of 3/1; recognize that 6/1 = 6; locate 4/4 and 1 as the same point on a number line diagram.
    d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of the comparisons with the symbols >, =, or < and justify the conclusions, e.g. by using a visual fraction model.

Number and Operations – Fractions - Fourth Grade
Extend understanding of fraction equivalence and ordering

1) Explain why a fraction a/b is equivalent to a fraction (n x a) (n x b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
2) Compare two fractions with different numerators and different denominators by creating common denominators and numerators or by comparing to a benchmark fraction such as ½. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols <, =, > and justify the conclusions, e.g. by using visual fraction models.

Week One:
Introduce fractions in general starting with simple paper folding so children get a concrete idea of what fractional sizes look like. Continue this introduction through stories, poetry, cooking, movement, and hands-on manipulatives, such as fraction bars, pattern blocks and Cuisenaire rods. Use the circle at the beginning of the main lesson to integrate movement, poetry and music into the study of fractions. Use stories to introduce concepts and practice concepts with hands-on activities and manipulatives.

Week Two:
During this week, students will work with equivalent fractions, again through paper folding, stories, movement, number lines, and manipulatives. They will begin writing equivalent fractions and will learn the traditional algorithms for creating equivalent fractions. The number line is an excellent way to introduce equivalent fractions, as is using rhythm sticks during singing, and writing music as well. (See article Goral, M. & Wiest, L. (2007). An arts based approach to teaching fractions. *Teaching Children Mathematics*, 14(2), 74-80)

Week Three:
Students will learn about improper fractions and mixed numbers. This will take place through stories, art, and manipulatives. Improper fractions can be introduced in a practical way using food (always gets kids' attention) For example, using whole pizzas cut into 12 slices, ask the class how many you would need for each student to have one piece if you have a class of 16 students. Work throughout the week to first represent mixed numbers, then show the equivalent improper fraction. Try to get kids to easily go from one to the other.

Stories
The Land of Snoitcarf
Short story problems

Poems
The Hammer of Thor
Broken Number Pieces

Songs
Oh Mighty Odin
My Paddle

Movement Activities
Rhythm sticks
Jump the number line

Projects
Cooking and baking
Fraction Quilt

Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Kretz, Harry, *Triangle, Circle and Soul*

8. Rawson, Martyn and Richter, Tobias. *The Educational Tasks and Content of the Steiner Waldorf Curriculum*
9. Stockmeyer, Karl, *Rudolf Steiner's Curriculum for Waldorf Schools*
10. Wilkinson, Roy, *Teaching Mathematics to Age 14*
11. Wilkinson, Roy, *Teaching Mathematics*

Fourth Grade – Class Play

Fourth Grade – Grammar

This block features a study of grammar, which is a continuation from third grade. Students' word development deepens, as they study elements of grammar, including a review of nouns, verbs, adjectives, adverbs and move on to learn about prepositions, pronouns, and articles. Initially, the literal spatial relationships indicated by prepositions can be explored. In fact, students need to physically experience prepositions. Students also review punctuation, including different types of sentences and begin to learn how to use quotation marks and where to place commas. According to Steiner (in Rawson and Richter, 2005), when children "consciously live their way into the structure of language" (p. 114), they begin to be aware of the link that connects all of the people who share their common language. Following the study of the above elements of grammar, students then move in to the study of tenses – past, present, and future. Again, acting these out is of great importance to the 9- and 10-year-old child.

Common Core Standards

Language Standards – Fourth Grade
Conventions of Standard English

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
   a. Use relative pronouns (*who*, *whose*, *whom*, *which*, *that*) and relative adverbs (*where*, *when*, *why*).
   b. Form and use the progressive (e.g., *I was walking*; *I am walking*; *I will be walking*) verb tenses.
   c. Use modal auxiliaries (e.g., *can*, *may*, *must*) to convey various conditions.
   d. Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).
   e. Form and use prepositional phrases.
   f. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.
   g. Correctly use frequently confused words (e.g., *to*, *too*, *two*; *there*, *their*).
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
   a. Use correct capitalization.
   b. Use commas and quotation marks to mark direct speech and quotations from a text.
   c. Use a comma before a coordinating conjunction in a compound sentence.
   d. Spell grade-appropriate words correctly, consulting references as needed.

Week One:
In the book "A Journey Through Time in Verse and Rhyme", teachers will find a number of poems about grammar. Starting the day with the morning circle and working with poetry and games about grammar gives children another entry point into the subject. The first week should include a review of parts of speech as well as an introduction to prepositions, pronouns and articles. As always, the delivery of content should be done in an imaginative way. Teachers should use games and movement to first introduce new elements of grammar. After children have the new material "in their bodies", they can practice writing sentences, using specified parts of speech. Adding color and illustrations help bring the subject alive as well.

Week Two:
The morning circle work should continue during this week. Teachers can introduce the study of tenses during the second week of the block. Again, the presentation should be imaginative and involve

movement first, so children can feel it all the way into their cells. Acting out phrases with past, present, and future verbs is an engaging way to teach students this piece of grammar. They can then write and illustrate what they learned. Using sentences from stories is helpful, as children have a context with which to place their understanding. Teachers can use stories from other blocks or stories that enrich other blocks can be used here.

Week Three:
After working with the same poems for three weeks in morning circle, students should be able to recite from memory some or all of the poems. Oral recitation is an important part of grammar and literacy. The third week of this block involves teaching children about quotation marks and commas as well as reviewing other types of punctuation. Beginning the week with the review is recommended, then introducing quotation marks again through movement (actually have children BE the quotation marks), makes the study more engaging and helps students commit the content to memory. Students can work on writing dialogue in creative writing as well as in other types of writing, such as narrative and opinion pieces.

Resources:

3. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
4. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
5. Heider, W. M. Von, *And then take Hands*
6. Holbook, Sara, *Practical Poetry*
7. Jaffke, Christoph, *Tongue Twisters ans Speech Exercises*
8. King, Nancy, *Storymaking and Drama*
9. Koch, Kenneth, *Rose, where did you get that red?*
10. Matthews, Paul, *Sing Me the Creation*
11. McAllen, Audrey E., *Teaching Children to Write*
12. Mellon, Nancy, *Storytelling and the Art of Imagination*
13. Miller, Debbie, *Reading with Meaning*
14. O'Conner, Patricia T., *Woe is I*
15. Rose, Michael, *Living Literacy*
16. Rubright, Lynn, *Beyond the Beanstalk*
17. Whitman, Walt, *Complete Poetry and Selected Prose*
18. Williams, Oscar, *The New Pocket Anthology of American Verse*
19. Wilkinson, Roy, *Teaching English*
20. Wynstones Press, *Autumn; Poems, Songs and Stories*
21. Wynstones Press, *Gateways; Poems, Songs and Stories*
22. Wynstones Press, *Spring; Poems, Songs and Stories*
23. Wynstones Press, *Summer; Poems, Songs and Stories*
24. Wynstones Press; *Winter; Poems Songs and Stories*
25. Zaid, Gabriel, *So Many Books*
26. *A Journey Through Time in Verse and Rhyme*

Fourth Grade – Fractions II, Decimal Fractions

As previously mentioned, 4th grade students are in the midst of the nine-year change where they begin to realize that fragmentation and contradiction exists in the world. They learn this when studying Norse mythology and again during their blocks on fractions. In this second block on fractions, students learn how to add and subtract fractions, first with like denominators, then with unlike denominators. Following this, they learn to multiply and divide fractions. The least common multiple and greatest common divisor of whole numbers are introduced as concepts. Further study leads students into decimal fractions, which is a precursor to the study of decimals in 5th grade.

Common Core Standards

Number and Operations – Fractions - Fourth Grade

Build Fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction a/b with a > 1 as a sum of fraction 1/b
   a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole
   b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify using decompositions by using a visual fraction model. e.g. 1/8 + 1/8 + 1/8 = 3/8; 3/8 = 1/8 + 2/8.
   c. Add and subtract mixed numbers with like denominators.
   d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.
4. Apply and extend previous understanding of multiplication to multiply a fraction by a whole number.
   a. Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model of 5/4 as a product of 5 x 1/4, recording the conclusion by the equation 5/4 = 5 x (1/4).
   b. Understand a multiple of a/b as a multiple of 1/b and use this understanding to multiply a fraction by a whole number. For example use a visual fraction model to express 3 x (2/5) as 6 x (1/5), recognizing this product as 6/5. (In general n x (a/b) = (n x a)/b.
   c. Solve word problems involving multiplication of a fraction by a whole number, e.g. by using visual fraction models and equations to represent the problem.

Understand decimal notations for fractions and compare fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express 3/10 as 30/100 and add 3/10 + 4/100 = 34/100.

Week One:

During this first week, students will first review the basic meaning of fractions as parts of a whole, review equivalent fractions and mixed numbers. They will then be introduced to the addition and subtraction of fractions using first like denominators and then unlike denominators (and changing to the least common denominator). This will first be introduced through stories that involve real-life, hands-on action, such as through baking and basic cutting of wholes to parts. Food is always a great motivator. Make sure to use squares and rectangles in addition to circular models. Include the use of manipulatives, such as fraction bars, pattern blocks, and Cuisenaire rods.

Week Two:

The second week of this block involves the multiplication of fractions. This can be introduced through short story problems as well as with paper folding (www.pythagabus.com) Drawing out the actual problem can greatly aid children in the understanding of the multiplication of fractions. Although the Common Core Standards do not require students to learn the division of fractions in fourth grade, most private Waldorf schools do introduce this. It is a difficult concept, but doing it through story, pictures, and hands on examples can be quite effective. Refer to the above website.

Week Three:
Decimal fractions will seem easy to children after working with the multiplication and division of fractions. Decimal fractions are best introduced using Base 10 Blocks, [where the whole (flat) now becomes 1, the 10 (rod) becomes 1/10 and the one (unit) become 1/100]. Also, decimal paper is a great aid in helping children understand these equivalencies. Mental math, relays, number lines, and the actual cutting of wholes into 10ths and 100ths also are good visuals. Children should learn to add and subtract decimal fractions during this part of the block.

Stories
Short story problems

Poems
Decimal Meteors

Songs
Any song with 4:4 time

Movement Activities
Rhythm sticks
Jump the number line

Projects
Cooking and baking
Writing music

Manipulatives
Fraction Bars
Base 10 Blocks
Cuisenaire Rods
Pattern Blocks

Mathematics Resources

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Kretz, Harry, *Triangle, Circle and Soul*
8. Rawson, Martyn and Richter, Tobias. *The Educational Tasks and Content of the Steiner Waldorf Curriculum*
9. Stockmeyer, Karl, *Rudolf Steiner's Curriculum for Waldorf Schools*
10. Wilkinson, Roy, *Teaching Mathematics to Age 14*
11. Wilkinson, Roy, *Teaching Mathematics*

Fourth Grade – Idaho History

Prior to the study of Idaho history, students studied the geography of the state and heard stories of early inhabitants, thus preparing them for a fuller study of the history of Idaho during this block. Because fourth graders are now able to differentiate between space and time, they can begin to structure a totality in their thinking. 'Before' and 'after' are more strongly felt and related to one another, allowing the students to form independent mental images and recall them at will. They are more able to understand cognitively questions and phenomena in a reasoned and realistic manner (Rawson and Richter, 2005). It is the perfect time to begin the study of history. During this block, students follow the growth of the state through the years, from prehistory to current day. They learn about the soil and waterways and how this has influenced the history of the state. They hear more stories of Native Americans and participate in a study of immigrants, which helps children understand the customs and culture of the state. Students are exposed to artifacts through visits to museums and from guest speakers. They also study and illustrate the state flag and state symbols.

Idaho Academic Standards

- B. 4.1. Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, textbooks, photos, architecture, oral presentations, graphs and charts
- B.4.2. Use a timeline to select, organize, and sequence information describing eras in history
- B.4.3 Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary and extraordinary people, place them in time and context, and explain their relationship to important historical events
- B.4.4 Compare and contrast changes in contemporary life with life in the past by looking at social, economic, political, and cultural roles played by individuals and groups
- B.4.5 Identify the historical background and meaning of important political values, such as freedom, democracy, and justice (better suited 5th grade)
- B.4.6 Explain the significance of national and state holidays, such as Independence Day, Martin Luther King, Jr. Day and, and national and state symbols, such as the US flag and the state flag
- B.4.7 Identify and describe important events and famous people in Idaho and US history (we will just cover WI history this year – US history will be in 5th grade)
- B.4.8 Compare past and present technologies related to energy, transportation, and communication and describe the effects of technological change, either beneficial or harmful, on people and the environment (this will be covered during the block on the environment)
- B.4.9 Describe examples of cooperation and interdependence among individuals, groups, and nations (this will be covered on the state level)
- B.4.10 Explain the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho

Week One:

Begin the week by reviewing the geography block, especially focusing on a sense of place. What is the land like where they live? How did the names of towns, cities, and counties come about? Who settled the region? Are the descendents still there? Following this initial review and discussion, students will hear stories about the prehistory of Idaho, including stories, narratives and biographies of early Native American tribes, including the Winnegago, Dakota, and Iowa. Later Algonquin tribes arrived from the east, including Sauk, Fox, and Miami. The first white person (on record) to explore Idaho was Jean Nicolet, followed by Marquette and Joliet. Stories about the early struggles between Native Americans and white settlers will be discussed as will the fur trade and mineral mining. Students will begin to understand about the early settlement of the area and what trials, tribulations and successes were

encountered by all. Students will read accounts of Native Americans and early explorers and settlers, and will write short essays and illustrate these in their main lesson books. The use of a timeline throughout all three weeks will help students place the significant dates of the state's history in sequence.

Week Two:
This second week covers the period of history from the early 1800s, including 1848 (statehood) to the early 1900s. Students learn about the immigrant population and how they shaped the culture of the state. They also learn about industry and farming and hear stories and biographies of famous people as well as those ordinary people who contributed to the shaping of the state. The Peshtigo Fire is a great story to tell to 4th graders. Students will also learn about the state symbols and the flag through stories and illustrations. Students will again read biographies, write short essays and illustrate images in their main lesson books.

Week Three:
This third week starts following Idaho's participation in WWI and goes through present day. Students will learn about the important people in the state and their contributions and again will study what the everyday folks did to help the state thrive. The study of farming and industry will continue and the changes that have taken place in both will be acknowledged. A current look at the state of the Native American tribes will also take place. For a culminating project, Students can participate in a County Fair, where they research a county in the state and write a report, create a map, and make other artifacts indicative of their county.

Songs
Idaho State Song
Farming Songs

Poetry
Poems by famous Idaho poets
Native American poetry
Farming and industry poems

Projects
County Fair

Resources

1. Brierley, David L., *In the Sea of Life Enisled*
2. Curtis, Natalie, *The Indian's Book*
3. Jayasuriya, Erica, *Traditions*
4. Lindenberg, Christoph, *Teaching History*
5. Mitchell, David, *Teaching History through the Grades*
6. Sobel, David, *Place-Based Education*
7. Streit, Jakob, *And There Was Light*
8. Ulin, Bengt, *Finding the Path*

Fifth Grade

5th Grade (Blocks are 3-4 weeks long)

- Greek Mythology (Language Arts)
- Botany
- The Metric System
- Ancient Cultures (India, Persia, Mesopotamia, Egypt)
- Grammar
- Greek History
- Higher Level Math Skills
- Class Play (Drama)
- US History, Government and Geography

The fifth grade student has reached a point in his development that some refer to as "the golden age of childhood" and is actually in perfect physical proportion. At this age, the child attains a certain ease and grace of movement. He is steadier and more confident. His will has grown as has his awareness of 'self'. Socially, a powerful group dynamic can occur in the class. Understanding of forming of concepts is beginning yet it is important to still keep a pictorial element in the delivery of the content. Students in fifth grade have developed a sense of time – with an understanding of before and after and are now able to make plans for the future. There is an emerging sense of responsibility and conscience. Students' capacities can really grow at this age. They can now master a musical instrument and physically can exhibit sustained physical effort. Independent creativity emerges in both math and language arts as does a growing power of memory. This year marks a pivotal point between childhood and puberty, where students are no longer children yet not yet young adults. Students show an increased standard in their work. The study of actual history begins this year, as children are able to put events in an historical sequence. The year can open with a language arts block on Greek Mythology, but can be followed later with a Greek history block. The aim is to transition from myth to history and its emphasis on the individual (Rawson and Richter, 2005).

Fifth Grade - Greek Mythology

The majority of reading material comes from ancient eastern cultures. Even though a number of the cultural studies later in the year will come in the form of history blocks, students will still have many opportunities to read and write during these blocks. However, the first block of the year is more language arts focused, as the move from mythology to history will take place as the year progresses. Fifth grade students love the study of Greek Mythology. Their horizons have widened considerably since 4th grade and they have a finer appreciation for the smooth classic myths that will be told as well as read during this block. The *D'Aulaires' Book of Greek Myths* is an excellent resource and one that the teacher can plan her block around. Other books are available as well as anthologies of children's literature (which contain Greek myths). The fifth grader can identify with the adventurous spirit of the Greek heroes who went on long and hazardous voyages, as she needs to have wide perspectives and challenges now. There are more than enough myths to fill the block, letting the teacher choose those that will meet the needs of her students. Students will listen to and read myths, write essays and summaries, illustrate stories, and immerse themselves in the Greek culture.

Common Core Standards – Fifth Grade

Reading Literature
Key Ideas and Details

1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text including figurative language such as metaphors and similes.
5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
6. Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
8. n/a
9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

10. By the end of the year; read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.

Foundational Skills
Phonics and Word Recognition

3. Know and apply grade-level phonics and word analysis skills in decoding words.

a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
   a. Read on-level text with purpose and understanding.
   b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
   c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Writing

Text Types and Purposes

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
   a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
   b. Provide logically ordered reasons that are supported by facts and details.
   c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*).
   d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
   a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; including formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
   b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
   c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially)
   d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
   e. Provide a concluding statement or section related to the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
   a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
   b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
   c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
   d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
   e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and cohesive writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above)

5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29.)
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
    a. Apply grade 5 reading standards to literature. (e.g. Compare and contrast two or more…)
    b. Apply grade 5 reading standards to informational texts. (e.g., Explain how an author uses…)

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening
Comprehension and Collaboration

4. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
    a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
    b. Follow agreed-upon rules for discussions and carry out assigned roles.
    c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
    d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
5. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
6. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.

Presentation of Knowledge and Ideas

7. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
8. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.

9. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 for specific expectations.)

Weeks One through Three:
Because this is a language arts block, it can be organized in a number of ways. First, the myths can be organized according to the major gods and their offspring. Zeus is the father of all of the gods, so it makes sense to tell his story first. After that, it is up to the teacher how she would like to organize the stories. Since there are so many gods, some can be told while students can read about other ones. For those gods that are not covered, students can choose one to research and write about. The end of the block can feature oral presentations by the students. Other areas of language arts should also be covered during the three weeks. Fifth graders should be able to read aloud fluently with awareness of punctuation and inflection. They should be able to take down a dictation on a known subject with reasonable accuracy and should also be able to use a dictionary to find unfamiliar words for both spelling and meaning. The understanding and use of common prefixes and suffixes should be evident in their speech and writing. In addition, fifth graders should be able to use quotation marks in writing direct speech, colons and semi-colons, and should be able to know and understand paragraphing. If time in this block, work on and review all major parts of speech, including nouns, verbs, adjectives, adverbs, prepositions, articles, conjunctions and interjections. Finally, students should be able to use continuous verb forms in all tenses present, future, and past.

Given the above information, fifth graders still enjoy starting the morning with poetry and song as well as with some challenging movements. Poems and songs can reflect the area of study. The teacher should definitely tell as many of the myths as possible and students should still participate in a sound review. New material can be presented through reading groups (literature circles), writing exercises, and grammar practice. Art work in their main lesson books will be plentiful, as the pictures of the gods are beautiful and numerous.

Teacher Resources:
Language Arts

1. Aeppli, Willi, *Biography and Waldorf Education*
2. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
3. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
4. AWSNA, *Possible Source Material and Basic Book List*
5. Barton, Bob and Booth David, *Story Works*
6. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
7. Diller, Debbie, *Practice with Purpose*
8. Ditzel, Resi J., *Great Beginnings*
9. Dunn, Patricia A., *Talking, Sketching, Moving*
10. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
11. Garlieb, Malisa, *Literacy Learning in a Waldorf Classroom: A Meditation on Briar Rose*
12. Gillard, Marni, *Story Teller Story Teacher*
13. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book I*
14. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book II*
15. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
16. Hall, Donald, *Contemporary American Poetry*
17. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
18. Heider, W. M. Von, *And then take Hands*
19. Holbook, Sara, *Practical Poetry*
20. Intrator, Sam M. and Megan Scribner, *Teaching with Fire*
21. Jaffke, Christoph, *Tongue Twisters ans Speech Exercises*

22. King, Nancy, *Storymaking and Drama*
23. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
24. Koch, Kenneth, *Rose, where did you get that red?*
25. Les Parsons, *Expanding Response Journals in All Subject Areas*
26. Maier, Magda and Christoph Jaffke, *Poems for the Middle and Upper School*
27. Martin, Michael, *The Little Series; St. Martin*
28. Matthews, Paul, *Sing Me the Creation*
29. McAllen, Audrey E., *Teaching Children to Write*
30. Mellon, Nancy, *Storytelling and the Art of Imagination*
31. Meyer, Rudolf, *The Wisdom of Fairy Tales*
32. Miller, Debbie, *Reading with Meaning*
33. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
34. The National Storytelling Association, *Many Voices; True Tales from America's Past*
35. The National Storytelling Association, *Tales as Tools*
36. O'Conner, Patricia T., *Woe is I*
37. Peckham, Margaret, *Fairy Tales*
38. Perrin, Robert, *Pocket Guide to APA Style*
39. Perrow, Susan, *Healing Stories for Challenging Behaviour*
40. Polikoff, Daniel J., *Pzrzival, Gawain; Two Plays*
41. Publications International, LTD., *Classic Children's Stories*
42. Rose, Michael, *Living Literacy*
43. Rubright, Lynn, *Beyond the Beanstalk*
44. Samson, Donald, *The Dragon Boy*
45. Sblendorio, Christopher, *The Falconer*
46. Schwartz, Eugene, *Plays for Children and Communities*
47. Schwartz, Eugene, *Wish, Wonder, Surprise*
48. Streit, Jakob, *Geron and Virtus*
49. Streit Jakob, *The Star Rider and Anna McLoon*
50. Strunk, William Jr. and E.B. White, *The Elements of Style*
51. Verscguren, Ineke, *The Easter Story Book*
52. Ward, William, *Hawthorne Valley Harvest; A Collection of Plays for the Elementary Grades*
53. Whitman, Walt, *Complete Poetry and Selected Prose*
54. Williams, Oscar, *The New Pocket Anthology of American Verse*
55. Wilkinson, Roy, *The Interpretation of Fairy Tales*
56. Wilkinson, Roy, *The Norse stories and their Significance*
57. Wilkinson, Roy, *Teaching English*
58. Wynstones Press, *Autumn; Poems, Songs and Stories*
59. Wynstones Press, *Gateways; Poems, Songs and Stories*
60. Wynstones Press, *Spring; Poems, Songs and Stories*
61. Wynstones Press, *Summer; Poems, Songs and Stories*
62. Wynstones Press; *Winter; Poems Songs and Stories*
63. Zaid, Gabriel, *So Many Books*

Fifth Grade – Botany

Children enter fifth grade more assured and self-confident, making them ready for new challenges. They begin to look beyond their familiar surroundings at the greater world. During the fifth grade, they will have heard stories from the Greeks, many of which express a divinity in nature. As a result, students want to take a more penetrating look at the natural world and be led further into a scientific study. In the fourth grade, the child's interest was much more geared toward the outer world, but she still needed pictures (imaginative descriptions) rather than concepts. In the fifth grade, students step further into the material world and are better able to form concepts. They are coming out of the stage where the picture-imaginative approach is sufficient, but they are not quite in the world of intellectual thought. Thus the approach of this block should be through observation. The fifth grade student has a desire to know the causes of things, but not quite in a scientific way that appeals to the brain, but more of one that appeals to the heart. The study of plants can really fill this need. Students can observe cause and effect in the growth of plants. For example, a certain plant placed in certain conditions will develop in a particular way. It is cause and effect in action through observation, which is different than cause and effect in history (Wilkinson, 1983). It is best to study plants that are native to the area, as this place-based approach to education "helps students develop stronger ties to their communities, enhances students' appreciation for the natural world, and creates a heightened commitment to serving as active, contributing citizens" (Sobel, 2004, p. 7).

Idaho State Standards
Science, Life and Environmental, Performance Standards F Grade 4
By the end of **grade four**, students will:

THE CHARACTERISTICS OF ORGANISMS

- F.4.1 Discover* how each organism meets its basic needs for water, nutrients, protection, and energy* in order to survive
- F.4.2 Investigate* how organisms, especially plants, respond to both internal cues (the need for water) and external cues (changes in the environment)

LIFE CYCLES OF ORGANISMS

- F.4.3 Illustrate* the different ways that organisms grow through life stages and survive to produce new members of their type

ORGANISMS AND THEIR ENVIRONMENT

- F.4.4 Using the science themes*, develop explanations* for the connections among living and non-living things in various environments

Science, Standard F: Life and Environmental Science Performance Standards - Grade 8
By the end of **grade eight**, students will:

STRUCTURE AND FUNCTION IN LIVING THINGS

- F.8.1 Understand the structure and function of cells, organs, tissues, organ systems, and whole organisms
- F.8.2 Show how organisms have adapted structures to match their functions, providing means of encouraging individual and group survival within specific environments
- F.8.3 Differentiate between single-celled and multiple-celled organisms (humans) through investigation, comparing the cell functions of specialized cells for each type of organism

REPRODUCTION AND HEREDITY

- F.8.4 Investigate and explain that heredity is comprised of the characteristic traits found in genes within the cell of an organism

- F.8.5 Show how different structures both reproduce and pass on characteristics of their group

REGULATION AND BEHAVIOR

- F.8.6 Understand that an organism is regulated both internally and externally
- F.8.7 Understand that an organism's behavior evolves through adaptation to its environment

POPULATIONS AND ECOSYSTEMS

- F.8.8 Show through investigations how organisms both depend on and contribute to the balance or imbalance of populations and/or ecosystems, which in turn contribute to the total system of life on the planet

DIVERSITY AND ADAPTATIONS OF ORGANISMS

- F.8.9 Explain how some of the changes on the earth are contributing to changes in the balance of life and affecting the survival or population growth of certain species
- F.8.10 Project how current trends in human resource use and population growth will influence the natural environment, and show how current policies affect those trends.

Week One:

Although the above standards are geared toward the end of 4th and the end of 8th grades, the teacher will be able to work within these guidelines to develop what is needed in this unit. There are a plethora of songs and poems about the natural world. The opening exercises should have songs and poems as well as short movement/games that have to do with plants and the natural world. Following this, the teacher can begin the unit of study. Roy Wilkinson, in his book "Plant Study – Geology: For the Age Group 11 and 12" gives an excellent outline of how to organize the unit. One suggestion on now to begin is to give the students a seed such as an acorn and have them marvel at this, perhaps even do a little creative writing. The teacher can then talk about the form of a plant, the root, stem, leaves, and flower. Students can draw plants and flowers that have been brought into the classroom, but they SHOULD NOT take the plant apart or look at it through a microscope. This unit is about the appreciation of the plant's beauty and contribution to our lives. The teacher can read any number of books to the children, such as "The Man Who Planted Trees" or "Just a Dream" by Chris Van Alsberg. The main lesson should be spent learning about the parts of plants, drawing and painting plants from direct observation and writing about plants. Part of the morning can be spent in the garden. Students can work to plant or harvest. Entries in the main lesson book can include multiple drawings, writings, poems, as well as definitions.

Week Two:

Continue with the same beginning exercises. Review last week and continue on. Wilkinson suggests studying the geometry of flowers (observing, drawing, comparing to geometrical forms), flowers and insects, the distribution of seeds, and the metamorphosis of plants. There are any number of activities that the teacher can do with her students with each of the above topics. The block should be active, with children going outside, working with plants, doing activities with plants, and again, sketching, drawing and painting plants. *Project Learning Tree*, published by the Department of Natural Resources is an excellent resource for activities with plants. The teacher can also take the students on a field trip to visit an arboretum, a greenhouse, botanical gardens, or a farm. Entries in the main lesson book can include multiple drawings, writings, poems, as well as definitions. The teacher can assign a research report during this week. Students can choose a plant that they are interested in and write a short report, do a drawing or painting, and bring something in perhaps made from the plant.

Week Three:

During this week the teacher can discuss the stages of plant development. Following the morning exercises and a review, the week can progress as follows: fungus, lichens, algae, mosses, ferns, and flowering plants. Trees can also be a part of this, but that might include an additional or at least an additional week. The same ideas should continue for this week. Have the children actively participate

in working with plants, observing plants, drawing and painting plants, and writing about plants. Students can share their research reports at the end of this week or next week. Entries in the main lesson book can include multiple drawings, writings, poems, as well as definitions.

Projects:
Work in the garden
Field Trips
Research report
Make plant dye and share this activity with the handwork teacher

Teacher Resources:
Science

1. Bair, Kimberly, *Reverence Towards the Natural World*
2. Cornell, Joseph, *Sharing Nature with Children*
3. Department of Natural Resources, *Project Learning Tree*
4. Giono, Jean, *The Man Who Planted Trees*
5. Lockie, Beatrys, *Gardening with Young Children*
6. Santer, Ivor, *Green Fingers and Muddy Boots*
7. Sobel, David, *Place-Based Education*
8. Van Allsburg, Chris. *Just a Dream*
9. Waters, Alice, *Edible Schoolyard*
10. Wilkinson, Roy. *Plant Study – Geology. For the Age Groups 11 and 12.*

Fifth Grade – Decimal Fractions, Decimals, and the Metric System

Students in fifth grade thoroughly experienced the study of fractions in fourth grade, and are now ready to move forward with decimal fractions and decimals, which leads into a study of the metric system. Students will also continue calculating freely with fractions, but the focus of that is in another block. The Common Core Standards heavily emphasize working with volume and cubic cm. Thus, the block begins with a review of fractions that then quickly moves to decimal fractions. Some calculations with decimals will transpire as will a focus on the metric system before moving into a more three dimensional study of the metrics through the work with volume. Fifth graders have experienced geometry through form drawing and are now ready to add rules and methods to the study of geometry. Learning the formula for volume is satisfying for students, but they must first experience it concretely before moving to the abstract. This rule also applies to decimals, as they can be understood concretely using Base 10 blocks. The flat (hundred) becomes "one", while the rod (tens) becomes a "tenth" and the unit (ones) becomes a "hundredth". The use of decimal paper helps students move from the concrete to the semi-concrete.

Common Core Standards – Fifth Grade

Mathematics
Number and Operations in Base Ten

2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
3. Read, write, and compare decimals to thousandths:
    a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.
    b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
4. Use place value understanding to round decimals to any place.

Measurement and Data

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
3. Recognize volume as an attribute of solid figures and understands concepts of volume measurement.
    a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume,
    b. A solid figure which can be packed without gaps or overlaps using *n* unit cubes is said to have a volume of *n* cubic units.
4. Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and improvised units.
5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
    a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number procedures as volumes, e.g., to represent the associative property of multiplication.

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b. Apply the formulas V=l x w x h and V=B x h for rectangular prisms to find volumes of right rectangular prisms with whole-number lengths in the context of solving real world and mathematical problems.
c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Week One:
This week's focus will be on a review of fractions, introducing decimal fractions and decimals. The morning exercises can begin with any math poems that fit the topic (decimals/measurement) or songs. Seasonal songs and poems can also be introduced. After the morning warm-up, practice mental math. Focus on fraction/decimal equivalencies. In other words, the teacher might say ask for the fraction equivalence of .25. Students should say the answer in lowest terms (1/4) . The teacher can also do simple ones, such as the decimal equivalence of 1/10 (point one). The review of fractions should be short, basically bringing back the concepts to the children's consciousness. Move into decimal fractions right away (tenths, hundredths, and thousandths). If need be, the teacher can begin in a concrete manner and use Base 10 blocks. She can then move to the semi-concrete with decimal paper. Another nice way to begin is to give the history of decimals and the metric system through story. The teacher can also start by having the children list all of the words they can think of that begin with DEC. They will soon find that the root DEC means ten. The class should be able to quickly move into adding and subtracting decimals. A centimeter graph paper chart often times helps students keep their numbers in the correct column. If the students seem ready, introduce multiplication of decimals. Try to show students the "why" as well as the "how". In other words, why does 1/10 times 1/10 equal 1/100? Division of decimals is even more complicated and might need to be introduced later in the year. Students can practice the fraction, decimal equivalencies in a relay game as well. Make cards that have the fraction on them (i.e. 1/10, 2/100, ¼) and give these to the students in their relay team line. They then run to a designated spot where they have to match their card with the decimal (.1, .02, .25). The main lesson book can feature a summary of the opening story, words with DEC as the suffix and the definition, problems, equivalencies, etc.

Week Two:
Continue with the same warm-up exercises, including mental math. Review last week and then move on to linear metric measurement. This again can be introduced through story. Choose practical project for the students to work on so they can practice their metric measurement skills while learning the names and conversions. Students could build something in the garden (raised beds or a bench or trellis), or they could make felt pencil case holders or crayon holders. All require measurement. For larger distances, take a walking field trip and measure it in meters or go swimming and do the same thing. Make up story problems to go with all of the activities. Any kind of real-world application will work. These are just suggestions. Make sure to use addition, subtraction, and multiplication of decimals with the algorithms given in the story problems. (i.e., Sam swam 2.5 kilometers and Mary swam 1.75. What is their total?) Put sample problems in the main lesson book as well as rules and equivalencies. Pictures of projects can also be entered.

Week Three:
Start the morning with the same warm-up exercises. This week's focus will be on 3-d measurement using metrics, in particular volume. The common core standards have quite a few requirements dealing with volume (please see standards listed above). Begin by doing hands on work with the concept of volume. Use cubic cm to fill containers. Or find larger wooden cubes and have students work by filling shoe boxes or other boxes with the blocks. It is interesting to see if they can come up with the formula for volume by doing this activity. From there, they will begin to do more complicated problems with volume. Always start with the concrete before moving to the abstract. Students can also draw the 3-d

objects, such as the rectangular prism, using their colored pencils. These drawings can go in their main lesson books as can the formulas for finding volume. Students can practice adding, subtracting and multiplying decimals while working on the volume formulas.

Projects:
Building projects for the garden
Felt pencil case holders
Cooking

Teacher Resources:
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *Geometric Drawing and the Waldorf School Plan*
3. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
4. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
5. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
6. Harrer, Dorothy, *Math Lessons for Elementary Grades*
7. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
8. Schneider, Michael S., *A Beginner's Guide to Constructing the Universe*
9. Schuberth, Ernst, *First Steps in Proven Geometry*
10. Swanson, Herb, *Geometry for the Waldorf High School*
11. Wilkinson, Roy, *Teaching Mathematics to Age 14*
12. Wilkinson, Roy, *Teaching Mathematics*

Fifth Grade – Ancient Cultures: Ancient India, Persia, Egypt and Babylon

According to Wilkinson (1984), the fifth grade child has an awareness of time but not the logical faculty to learn history only as a sequence of events. In fact, Wilkinson believes that teaching history as a set time period isn't really educative and that history is really a study of the development of humankind. Mental pictures are still the best and most potent way to teach students of this age. Steiner recommends beginning with mythological images of earlier times in human evolution (Greek myths) followed by the civilizations of ancient times, including ancient India, Persia, and Egypt and Babylon. It is important to emphasize the culture and economic history of these civilizations, showing children how people lived and worked the earth. This shows students that to be human means to evolve and that "the concept of the human race embraces the whole variety of all the peoples who have played their part in the processes of history" (Rawson and Richter, 2005, p. 155). Teaching through biographies and descriptions of events is the best way to bring the study of the ancient civilizations to children in a lively way. This block contains quite a bit of writing in addition to history.

Common Core Standards – Fifth Grade

Writing
Text Types and Purposes

3. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
    a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
    b. Provide logically ordered reasons that are supported by facts and details.
    c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
    d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; including formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
    b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
    c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially)
    d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
    e. Provide a concluding statement or section related to the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
    c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
    d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
    e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and cohesive writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29.)
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
    a. Apply grade 5 reading standards to literature. (e.g. Compare and contrast two or more…)
    b. Apply grade 5 reading standards to informational texts. (e.g., Explain how an author uses…)

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or day or two) for a range of discipline-specific tasks, purposes, and audiences.

Idaho State Standards
Social Studies, Standard B: History Performance Standards - Grade 8

By the end of **grade eight**, students will:

- B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used
- B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history
- B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history
- B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians
- B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently
- B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights
- B.8.7 Identify significant events and people in the major eras of United States and world history

- B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society
- B.8.9 Explain the need for laws and policies to regulate science and technology
- B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations
- B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho
- B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

Social Studies, Standard A: Geography Performance Standards - Grade 8
By the end of **grade eight**, students will:

- A.8.1 Use a variety of geographic representations, such as political, physical, and topographic maps, a globe, aerial photographs, and satellite images, to gather and compare information about a place
- A.8.2 Construct mental maps of selected locales, regions, states, and countries and draw maps from memory, representing relative location, direction, size, and shape
- A.8.3 Use an atlas to estimate distance, calculate scale, identify dominant patterns of climate and land use, and compute population density
- A.8.4 Conduct a historical study to analyze the use of the local environment in a Idaho community and to explain the effect of this use on the environment
- A.8.5 Identify and compare the natural resource bases of different states and regions in the United States and elsewhere in the world, using a statistical atlas, aerial photographs, satellite images, and computer databases
- A.8.6 Describe and distinguish between the environmental effects on the earth of short-term physical changes, such as those caused by floods, droughts, and snowstorms, and long-term physical changes, such as those caused by plate tectonics, erosion, and glaciation
- A.8.7 Describe the movement of people, ideas, diseases, and products throughout the world
- A.8.8 Describe and analyze the ways in which people in different regions of the world interact with their physical environments through vocational and recreational activities
- A.8.9 Describe how buildings and their decoration reflect cultural values and ideas, providing examples such as cave paintings, pyramids, sacred cities, castles, and cathedrals
- A.8.10 Identify major discoveries in science and technology and describe their social and economic effects on the physical and human environment
- A.8.11 Give examples of the causes and consequences of current global issues, such as the expansion of global markets, the urbanization of the developing world, the consumption of natural resources, and the extinction of species, and suggest possible responses by various individuals, groups, and nations

Week One:
An excellent guide for teaching this block is given to us by Roy Wilkinson. Entitled "Teaching History: The Ancient Civilizations – India, Persia, Egypt and Babylon", this book offers an excellent introduction to teaching history to students in fifth grade and then gives an outline of stories, poems, and biographies to share with the students. Begin the block with poetry from/about ancient India. A number of poems are in this particular book. The teacher can then tell a selection of biographies that give the children a sense of what it was like during this period of history. Students can write essays based on the biographies. They can create timelines or family trees in their main lesson books and work on wonderful illustrations. Using the Wilkinson book as a guide, teachers can further research each of the

topics and people that Wilkinson suggests. Students can also draw maps of ancient India that can be part of their main lesson books.

Week Two:
The next week can feature the study of Persia. The story of Zarathustra is really key during this week. Songs and poems from Persia can be added to the morning exercises. The teacher can begin with a review, followed by the story of Zarathustra. There are a number of accounts told about Zarathustra and making this biography last more than a day would be interesting for the students. Essay writing and illustrations will be part of this week as well. It will be important for the teacher to stress that during this next epoch, human beings are more "physical" and have begun to work with the earth. The material world is beginning to hold more interest to humans. Maps of the region should be made as well. If time, begin the study of Egypt and Babylon. There is quite a bit to offer the children from this time period and fifth graders have a certain fascination for ancient Egypt. Spending more time on it could prove engaging for the students.

Weeks Three and Four:
Continue with morning exercises containing poems and songs from the ancient civilizations. Because students normally hold such a high interest in the study of Egypt, the teacher can assign a research project for the students. The project can cover a particular aspect of Egyptian culture, such as their writing symbols and instruments (just an example) and the student can write a report and make an example of the topic. If the teacher does not wish to do individual projects, she can bring the making of many of the items from ancient Egypt into the main lesson. Children can write on clay tablets, make paper, build pyramids, etc. In addition to telling the remainder of the important biographies, the students can also read or be read the epic of Gilgamesh. This is a classic story for students this age. Again, writing, illustrating, and mapping are all part of these two weeks.

Teacher Resources:
Social Studies/ History

1. Bigelow, Bill and Bob Peterson, *Rethinking Globalization; Teaching for Justice in an Unjust World*
2. Brierley, David L., *In the Sea of Life Enisled*
3. Cantor, Norman F., *Medieval Lives*
4. Jayasuriya, Erica, *Traditions*
5. Lindenberg, Christoph, *Teaching History*
6. Mitchell, David, *Teaching History through the Grades*
7. Querido, René M.,*Geography and Man's Responsibility for the Earth*
8. Sobel, David, *Mapmaking with Children*
9. Staley, Betty, *Hear the Voice of the Griot!*
10. Staley, Betty, *Splinters of the Sun*
11. Streit, Jakob, *And There Was Light*
12. Ulin, Bengt, *Finding the Path*
13. Veltman, Willem Frederik, *Hellas*
14. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*
15. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
16. Wilkinson, Roy, *Teaching History; The Ancient Civilization of India, Persia, Egypt, Babylonia*
17. Wilkinson, Roy, *Teaching History; The Ancient Civilizations India, Persia, Egypt and Babylonia-The Fourth Cultural Epoch Greece and Rome*
18. Wilkinson, Roy, *Teaching Geography*

Fifth Grade – Grammar and Writing

The fifth grade child is at a point of balance in the curriculum. The children have one foot still left in childhood yet are about to take a step into the world of adolescence. Writing deepens with an analysis toward the myths studied (Greek) and through the biographies of significant people from the studies of ancient cultures. The study of ancient cultures provides an apt landscape for written reports and public speaking via presentations and drama. Written projects are integrated throughout the entire year building upon the skills learned in prior grades and developing proficiencies in writing strategies, writing applications, and conventions. Essay skills are taught and students explore this form in depth, including distinguishing between the modes of writing (narrative, expository, persuasive, and descriptive writing). Fifth graders bring their emergent writing skills to the public realm via peer editing and participation in public writing projects so that they may see the written articulation of their thoughts and ideas as a contribution to the community. The study of grammar deepens to include more complex forms of speech, such as conjunctions, prepositions, and interjections. Students should have acquired a firm understanding of verb tenses. They will learn to use punctuation marks, such as commas, to set off items in a series and will use quotation marks correctly. Students will also learn to use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word.

Common Core Standards

English Language Arts

Language

Conventions of Standard English

1. Standard: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
    b. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
    c. Use verb tense to convey various times, sequences, states, and conditions.
    d. Recognize and correct inappropriate shifts in verb tense.
    e. Use correlative conjunctions (e.g., *either/or*, *neither/nor*).
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    a. Use punctuation to separate items in a series.
    b. Use a comma to separate an introductory element from the rest of the sentence.
    c. Use a comma to set off the words *yes and no* (e.g. Yes, thank you), to set off a tag questions from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (Is that you, Steve?).
    d. Use underlining, quotation marks, or italics to indicate titles of works.
    e. Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.

a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies.

a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.

b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis).*

c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meaning.

a. Interpret figurative language, including similes and metaphors, in context.

b. Recognize and explain the meaning of common idioms, adages, and proverbs. c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Writing

Text Types and Purposes

3. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
   a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
   b. Provide logically ordered reasons that are supported by facts and details.
   c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*).
   d. Provide a concluding statement or section related to the opinion presented.
4. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
   a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; including formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
   b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
   c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially)
   d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
   e. Provide a concluding statement or section related to the information or explanation presented.
5. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
   a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

6. Produce clear and cohesive writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above)
7. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29.)
8. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

9. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
10. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
11. Draw evidence from literary or informational texts to support analysis, reflection, and research.
    a. Apply grade 5 reading standards to literature. (e.g. Compare and contrast two or more…)
    b. Apply grade 5 reading standards to informational texts. (e.g., Explain how an author uses…)

Range of Writing

12. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or day or two) for a range of discipline-specific tasks, purposes, and audiences.

Week One:

The students have just completed a block in ancient cultures and should have written a number of short essays as well as a report on a specific culture. This block will be a time to look at those essays and reports and take them further. Even though the essays were most likely entered into the students' main lesson books, they can still be improved upon. As in other blocks, begin the morning with movement, poetry and music. Choose seasonal or interesting, fun poems and songs. This will be a nice change of pace for the students. The week can begin with the teacher talking with the students about different types of essays, such as narrative, expository, persuasive, and descriptive essays. She can show the students examples of each, then have them choose essays from the previous block's main lesson books and rewrite them to reflect the different types of essays. The teacher can focus on one type of writing each day. The main lesson can be set up as a Writers Workshop. The teacher can also have the students write new essays that reflect the different types of writing.

Week Two:
Begin the week with the same morning activities and perhaps add one or two new songs and/or poems. This week can focus on the grammar skills that students need to develop this year, such as conjunctions, prepositions, and interjections, a firm understanding of verb tenses, the use of punctuation marks, such as commas, to set off items in a series and the correct use of quotation marks. As in any good literacy instruction, it is better to teach the above skills in context, so using students' prior writing would be an excellent way to work on these skills. Focus on one-two skills per day, again using the Writers Workshop format. Students can deconstruct previously written essays in order to effectively learn these concepts. There are a number of fun grammar games that the teacher can use with the students in order to add variety to the lessons.

Week Three:
The final week can begin as the first two weeks, with songs, poems, and movement. Following this, it would be interesting to use this week as a reading/writing week. Introduce a novel that is in harmony with some aspect of the curriculum and have the students participate in Literature Circles. Discuss the book, write about it, and work on another type of essay – the Book Report. This can be written in the form of a five-paragraph essay and shared with the class. Students could also be given a choice of one other way to represent the book, such as a poster, book talk, pamphlet, short play, etc.

Teacher Resources:
Language Arts

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
10. Gillard, Marni, *Story Teller Story Teacher*
11. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book I*
12. Gladich, Joen and Paula A. Sassi, *The "Write" Approach Book II*
13. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
14. Hall, Donald, *Contemporary American Poetry*
15. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
16. Heider, W. M. Von, *And then take Hands*
17. Holbook, Sara, *Practical Poetry*
18. Intrator, Sam M. and Megan Scribner, *Teaching with Fire*
19. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
20. King, Nancy, *Storymaking and Drama*
21. Koch, Kenneth, *Rose, where did you get that red?*
22. Les Parsons, *Expanding Response Journals in All Subject Areas*

23. Maier, Magda and Christoph Jaffke, *Poems for the Middle and Upper School*
24. Martin, Michael, *The Little Series; St. Martin*
25. Matthews, Paul, *Sing Me the Creation*
26. McAllen, Audrey E., *Teaching Children to Write*
27. Mellon, Nancy, *Storytelling and the Art of Imagination*
28. Miller, Debbie, *Reading with Meaning*
29. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
30. The National Storytelling Association, *Many Voices; True Tales from America's Past*
31. The National Storytelling Association, *Tales as Tools*
32. O'Conner, Patricia T., *Woe is I*
33. Perrin, Robert, *Pocket Guide to APA Style*
34. Polikoff, Daniel J., *Pzrzival, Gawain; Two Plays*
35. Publications International, LTD., *Classic Children's Stories*
36. Rose, Michael, *Living Literacy*
37. Rubright, Lynn, *Beyond the Beanstalk*
38. Samson, Donald, *The Dragon Boy*
39. Sblendorio, Christopher, *The Falconer*
40. Schwartz, Eugene, *Plays for Children and Communities*
41. Streit, Jakob, *Geron and Virtus*
42. Streit Jakob, *The Star Rider and Anna McLoon*
43. Strunk, William Jr. and E.B. White, *The Elements of Style*
44. Zaid, Gabriel, *So Many Books*

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Fifth Grade – Greek History

As previously mentioned, the study of ancient cultures changes from myth to history when the Greek culture is brought to the fore. Now the children are ready, as Steiner says, to take on broad historical 'concepts'. They study Greek history from Homer's time up to its encounter with oriental culture at the beginning of Alexander the Great's campaigns. The material is still presented imaginatively through biography and story, but now the stories are based on historical facts. Studying the Greeks in fifth grade coincides with the physical study of the Pentathlon. Fifth graders have attained a certain sense of grace and ease of movement and their bodies are in nearly perfect balance. Rawson and Richter (2005) suggest studying the Iliad or Odyssey, the rise of the Greek cities (Sparta, Athens), figures and events from the time of the Persian Wars, the age of Pericles, and Alexander the Great and the spread of the Greek culture. Reading and writing is integrated into this unit, making it truly a study in the humanities.

Idaho Social Studies Standards

Social Studies, Standard B: History Performance Standards - Grade 8
By the end of **grade eight**, students will:

- B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used
- B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history
- B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history
- B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians
- B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently
- B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights
- B.8.7 Identify significant events and people in the major eras of United States and world history
- B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society
- B.8.9 Explain the need for laws and policies to regulate science and technology
- B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations
- B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho
- B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

Common Core Standards – Fifth Grade

Writing

Text Types and Purposes

13. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
    a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
    b. Provide logically ordered reasons that are supported by facts and details.
    c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
    d. Provide a concluding statement or section related to the opinion presented.
14. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; including formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
    b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
    c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially)
    d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
    e. Provide a concluding statement or section related to the information or explanation presented.
15. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
    c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
    d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
    e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

16. Produce clear and cohesive writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above)
17. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29.)
18. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

19. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
20. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.

21. Draw evidence from literary or informational texts to support analysis, reflection, and research.
    a. Apply grade 5 reading standards to literature. (e.g. Compare and contrast two or more…)
    b. Apply grade 5 reading standards to informational texts. (e.g., Explain how an author uses…)

Range of Writing

22. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or day or two) for a range of discipline-specific tasks, purposes, and audiences.

Reading Literature
Key Ideas and Details

3. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
4. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
5. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Craft and Structure

6. Determine the meaning of words and phrases as they are used in a text including figurative language such as metaphors and similes.
7. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
8. Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

9. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
10. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

11. By the end of the year; read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.

Foundational Skills
Phonics and Word Recognition

3. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
    a. Read on-level text with purpose and understanding.
    b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.

c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Week One:
Wilkinson (1992) suggests beginning the block from a couple of different perspectives. History is always more interesting if it can be connected to something we already know. Because so much of our language originated with the Greeks, Wilkinson suggests starting this way. Let the children know that words such as philosophy, biology, photograph, telescope, and telephone (to name a few) all have Latin/Greek origins. Students could also be asked to find more words. He also mentions starting with an overview of the land, peoples, customs and beliefs. Then the teacher can move into the biographies and stories that make up the block. However, there is a multitude of poetry that can be drawn from as well movement activities to begin the day. Following this, the teacher can start with the Iliad and the Odyssey, either as stories told or as class readers for the students. Wilkinson also suggests reading (or telling) the stories of Theseus, the Argonauts, and Perseus. The children can work on their own reading and writing from these books (and there are versions suitable for 5th graders). Essays and illustrations should be entered into the main lesson books.

Week Two:
The Greek city states should be the focus of this week's study. It was not until the time of Alexander the Great, that Greece was organized as all one nation. Prior to that, the city states were places where citizens practiced democracy (another word given to us by the Greeks). Two of the most famous city states were Athens and Sparta. These are great fun to tell about, as they have contrasts as well as some similarities. Biographies of the two famous leaders of Athens and Sparta, Solon and Lycurgus respectively, should be told. The stories should be presented in the form of vivid historical narrative so the children have an opportunity to feel the deeds and sufferings of the historical figures. Teachers should refrain from over interpreting the stories. In this way, the lessons can affect the morality and consciousness of the children (Rawson and Richter, 2005). Students should continue to recite and sing texts from this cultural epoch. They can even be introduced to Greek language and script. Essay writing, reading, and illustrations should be entered into the main lesson books. Students can also create maps of the area.

Weeks Three and Four:
This week can focus on the Greek and Persian Wars and the contrast between democracy and dictatorships. Between 490 and 465 BC a number of battles occurred between the Persians and the Greeks. These can be told to the students. Following the Persian War, stories of Pericles, Aristotle, Socrates, Archimedes, and Alexander the Great can be told. These biographies will give students a great feel for the Greek culture and how it spread. Students can again read, write, and illustrate from these biographies.

Teacher Resources:

Social Studies/ History

1. Bigelow, Bill and Bob Peterson, *Rethinking Globalization; Teaching for Justice in an Unjust World*
2. Brierley, David L., *In the Sea of Life Enisled*
3. Cantor, Norman F., *Medieval Lives*
4. Jayasuriya, Erica, *Traditions*
5. Lindenberg, Christoph, *Teaching History*
6. Mitchell, David, *Teaching History through the Grades*
7. Querido, René M.,*Geography and Man's Responsibility for the Earth*
8. Sobel, David, *Mapmaking with Children*

9. Staley, Betty, *Hear the Voice of the Griot!*
10. Staley, Betty, *Splinters of the Sun*
11. Streit, Jakob, *And There Was Light*
12. Ulin, Bengt, *Finding the Path*
13. Veltman, Willem Frederik, *Hellas*
14. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*
15. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
16. Wilkinson, Roy, *Teaching History; The Ancient Civilization of India, Persia, Egypt, Babylonia*
17. Wilkinson, Roy, *Teaching History; The Ancient Civilizations India, Persia, Egypt and Babylonia-The Fourth Cultural Epoch Greece and Rome*
18. Wilkinson, Roy, *Teaching Geography*

Fifth Grade – Higher Level Math Skills
(working with whole numbers, fractions, and decimals)

In the fourth grade, children were introduced to fractions, mixed numbers, and did some calculations with fractions. In fifth grade, students have worked with decimal fractions and decimals and have done some calculations. Fourth graders were also introduced to long division, but only with a one digit divisor. It was essential for the students to be able to 'experience' fractions, in their bodies, through stories, and in a practical way. According to Steiner, in fifth grade, the aim is to continue studying fractions and decimals and give the students everything they need that will help them calculate freely with whole numbers, fractions, and decimals. The main focus of this block then, will be to teach the children to divide using fractions, divide using decimals, and divide whole numbers, using at least a two-digit divisor. Relating the study and development of fractions to the Egyptian culture can give the teacher some significant and interesting ideas for making this block engaging. Students can even be told the story of Pythagoras and be introduced to the Pythagorean Theorem.

Common Core Standards

Math – Fifth Grade
Number and Operations in Base 10

6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations – Fractions

3. Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.)
    a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for (1/3) divided by 4, and use a visual fraction model to show the quotient. Use relationships between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) x 4 = 1/3.*
    b. Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 x (1/5) = 4.*

c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb. of chocolate equally? How many 1/3 cup servings are in 2 cups of raisins?

Week One:
Warm-up activities can include poetry involving fractions and decimals, seasonal songs and poems, poetry about Pythagoras or about Egyptians and mathematics. Movement activities with fractions and decimals and mental math can round out the morning exercises. Start the week with a review. First review fractions and mixed numbers, then review decimal fractions. From there, introduce the algorithm for dividing fractions, but do so first with pictures and manipulatives. If students can really "see" the process of the algorithm and have it presented in a practical way (i.e. through division of food that they will actually get to eat or the division of a garden plot that they will plant), the concept will more likely "stick" and they will remember it. Practice the division of a fraction by a whole number, a whole number divided by a fraction, and a fraction divided by a fraction. The website www.pythagabus.com and the book "Helping Children Learn Mathematics" by Reys, Lindquist, Lambdin, and Smith have interesting, hands-on activities that will help children understand the concepts. This would be the week to give the children the biography of Pythagoras and teach them the Pythagorean Theorem. Enter sample problems in the main lesson book, along with pictures, rules and summaries of stories and story problems.

Week Two:
This week's studies may or may not seem easier to the children, as the focus will be on whole numbers only. The division of larger numbers is a cumbersome process and students need to know why they might have to do this at some point in time in their futures. Begin the morning with the same exercises as last week, adding mental math that includes division. Review last week's work, and then move into the long division process. Again, showing students the process with manipulatives first can help, as can pictures of the actual process. Stories involving real-life, practical needs for this type of division help as well. Some alternative algorithms exist that might help certain students, and the teacher can decide if she wants to introduce these. They can be found in the above mentioned text by Reys, et.al. The main focus of this week is to practice the algorithm and learn it well.

Week Three:
While students have the division algorithm fresh in their minds, introduce division of decimals. Still start the morning with the warm-up activities, but then quickly move into this new algorithm. Although there are ways to teach children the 'process' of division of decimals, it may be more efficient at this point in time to just teach the complicated algorithm. First divide a decimal by a whole number, then a decimal by a decimal. Give the children plenty of real stories to help with this concept. Figuring out grade point averages, batting averages, temperature changes, average temperatures, climate change – the ideas are numerous. In fact, if the teacher wanted to focus the week on climate change with the added opportunity for the children to figure out average temperatures, that might really spice up the week. For those children who have trouble keeping their numbers neat, graph paper helps with this. Main lesson books can feature sample problems, rules, story problems, and pictures.

Teacher Resources
Math

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Glass, Julie, *The Fly on the Ceiling; A Math Myth*

5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Kretz, Harry, *Triangle, Circle and Soul*
8. Reys, Lindquist, Lambdin, and Smith, *Helping Children Learn Mathematics*
9. Schneider, Michael S., *A Beginner's Guide to Constructing the Universe*
10. Schuberth, Ernst, *First Steps in Proven Geometry*
11. Wilkinson, Roy, *Teaching Mathematics to Age 14*
12. Wilkinson, Roy, *Teaching Mathematics*

Fifth Grade – Language Arts: Drama

The class play is an excellent opportunity to build a number of skills with the students, including skills in reading, writing, grammar, and public speaking as well as a time to build social skills. Fifth graders are beginning to enter into adolescence, and this is a time when class dynamics can really change and/or become a challenge. The play block is always a time to work on the social dynamics in the class. If a certain child is picked on or bullied, then this child is chosen for an important role in the play. If a "queen bee" is emerging from the girls, then she will have a role that causes her to be benevolent if need to, a role where the character learns a difficult lesson. The curriculum is rich with opportunities for plays, and the teacher can choose something from the ancient cultures studied. "Sharazhad" is a great example. Another good fifth grade play is one about Pythagoras. Students also work on a number of language arts skills during the play block, so it is a unit that uses "economy of teaching", a term Steiner employed regularly. If the play works as it is meant to for the class, they will come out on the other end of it, a more solidified group, ready to meet the challenges of their full blown adolescence!!

Common Core Standards

English/Language Arts – Fifth Grade
Speaking and Listening

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.
    a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
    b. Follow agreed-upon rules for discussions and carry out assigned roles.
    c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
    d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.
2. Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
3. Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
4. Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
5. Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
6. Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 for specific expectations.)

Language (Grammar)

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.
    b. Form and use the perfect (e.g., *I had walked; I have walked; I will have walked*) verb tenses.
    c. Use verb tense to convey various times, sequences, states, and conditions.
    d. Recognize and correct inappropriate shifts in verb tense.
    e. Use correlative conjunctions (e.g., *either/or, neither/nor*).

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    a. Use punctuation to separate items in a series.
    b. Use a comma to separate an introductory element from the rest of the sentence.
    c. Use a comma to set off the words *yes and no* (e.g. Yes, thank you), to set off a tag questions from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (Is that you, Steve?).
    d. Use underlining, quotation marks, or italics to indicate titles of works.
    e. Spell grade-appropriate words correctly, consulting references as needed.

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
    a. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.
    b. Compare and contrast the varieties of English (e.g., dialects, registers) used in stories, dramas, or poems.
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 5 reading and content*, choosing flexibly from a range of strategies.
    a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.
    b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *photograph, photosynthesis).*
    c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

5. Demonstrate understanding of figurative language, word relationships, and nuances in word meaning.
    a. Interpret figurative language, including similes and metaphors, in context.
    b. Recognize and explain the meaning of common idioms, adages, and proverbs.
    c. Use the relationship between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases including those that signal contrast, addition, and other logical relationships (e.g. however, although, nevertheless, similarly, moreover, in addition).

Week One:
The first thing to do in a play block is to figure out what poems and songs the entire group will be using during the play. These then will be the warm-up activities/exercises to use for the 3-4 weeks of the block. Speech exercises are also perfect for this time, so as to get the students used to speaking slowly, loudly, and clearly. Following the warm-up activities, the teacher will introduce the class to the play. She can read it to them or the students can read it aloud. Following the first read through, a number of exercises can ensue. The teacher can have the students write for meaning, write about the characters, the setting – they can summarize the plot, find the problem, write about the solution – the possibilities are lengthy. Discussions can then take place. Students can discuss in a small group or with the whole group. The idea is to get the kids to really have a feeling for the play, for the story. Their grammar work can be taken from the play, as can spelling. The first week is really devoted to reading through the play a number of times, as a whole group and as small groups. As the week commences, the teacher will begin to know (if she does not already) who will be right for each of the parts. Ideally, parts should be assigned by the end of the first week so the students can begin to memorize.

Week Two:
Continue working on the songs, poems and speech activities. Also, if there are dances or movement activities in the play, this can be incorporated into the morning circle exercises. During the second week of the play block, students work on their lines with each other, in small groups and do read-throughs in the whole group. While working with small groups (note: having a parent volunteer is very helpful during this block), other groups can work on a number of things. They can write out their parts, design scenery, (first small sketches, then large), make invitations, work on costumes, and make prop lists. The teacher can also create grammar lessons for the students to work on individually. Toward the end of the second week, the class can begin practicing in the auditorium (or wherever the play will take place). The actual blocking of the play then commences. Again, it is important to have other things for students to do who are not in certain parts of the play. They can work on scenery or on specific assignments (writing, grammar) that the teacher assigns as homework.

Week Three:
If the play block is three weeks long, then the entire two-hour main lesson should be devoted to practice. If students are not in a particular scene, they should be practicing their lines or working on scenery, costumes, or invitations. The goal for the week is to have a dress rehearsal on Thursday and present the play on Friday to the entire school. Oftentimes 5th graders do a second evening performance for parents, friends, and relatives. If the block is four weeks long, then this week's work is basically stretched into two weeks. It is up to the teacher and will depend on the difficulty of the play and how well the students learn their parts.

Teacher Resources

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List* Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
10. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
11. Heider, W. M. Von, *And then take Hands*
12. Holbook, Sara, *Practical Poetry*
13. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
14. King, Nancy, *Storymaking and Drama*
15. Gillard, Marni, *Story Teller Story Teacher*
16. O'Conner, Patricia T., *Woe is I*
17. Schwartz, Eugene, *Plays for Children and Communities*
18. Ward, William, *Hawthorne Valley Harvest; A Collection of Plays for the Elementary Grades*

Fifth Grade – US History and Geography

Fifth graders study the geography of the United States as an extension of their study of local and state geography in fourth grade. Just as students venture further out into their communities as they get older, their study of world geography gets further and further from home. Even though the students have studied ancient cultures from the middle east and made maps to go with their study, it is not a *current* geographical study of that area. A block on Asian Geography normally occurs in 8th grade. Students will also study the history of the US, but not in the same way they will study it as 8th graders. In 8th grade, the study is more causal, whereas in 5th grade, students look at the discovery of America by non native people, the 13 colonies, and westward expansion. Historic fiction is nicely tied into this block as is writing and the telling of biographies of famous explorers.

Common Core Standards

Writing – Fifth Grade
Text Types and Purposes

1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
    a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose.
    b. Provide logically ordered reasons that are supported by facts and details.
    c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently*, *specifically*).
    d. Provide a concluding statement or section related to the opinion presented.
2. Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
    a. Introduce a topic clearly, provide a general observation and focus, and group related information logically; including formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.
    b. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
    c. Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially)
    d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
    e. Provide a concluding statement or section related to the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.
    a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
    b. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
    c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events.
    d. Use concrete words and phrases and sensory details to convey experiences and events precisely.
    e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and cohesive writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above)
5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 on pages 28 and 29.)
6. With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.
8. Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
    a. Apply grade 5 reading standards to literature. (e.g. Compare and contrast two or more…)
    b. Apply grade 5 reading standards to informational texts. (e.g., Explain how an author uses…)

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or day or two) for a range of discipline-specific tasks, purposes, and audiences.

Reading Literature
Key Ideas and Details

1. Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
2. Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
3. Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).

Craft and Structure

4. Determine the meaning of words and phrases as they are used in a text including figurative language such as metaphors and similes.
5. Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
6. Describe how a narrator's or speaker's point of view influences how events are described.

Integration of Knowledge and Ideas

7. Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
8. n/a

9. Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.

Range of Reading and Level of Text Complexity

10. By the end of the year; read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.

Foundational Skills

Phonics and Word Recognition

3. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.

Fluency

4. Read with sufficient accuracy and fluency to support comprehension.
    a. Read on-level text with purpose and understanding.
    b. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
    c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Idaho Social Studies Standards

Standard A: Geography Performance Standards - Grade 8

By the end of **grade eight**, students will:

- A.8.1 Use a variety of geographic representations, such as political, physical, and topographic maps, a globe, aerial photographs, and satellite images, to gather and compare information about a place
- A.8.2 Construct mental maps of selected locales, regions, states, and countries and draw maps from memory, representing relative location, direction, size, and shape
- A.8.3 Use an atlas to estimate distance, calculate scale, identify dominant patterns of climate and land use, and compute population density
- A.8.4 Conduct a historical study to analyze the use of the local environment in a Idaho community and to explain the effect of this use on the environment
- A.8.5 Identify and compare the natural resource bases of different states and regions in the United States and elsewhere in the world, using a statistical atlas, aerial photographs, satellite images, and computer databases
- A.8.6 Describe and distinguish between the environmental effects on the earth of short-term physical changes, such as those caused by floods, droughts, and snowstorms, and long-term physical changes, such as those caused by plate tectonics, erosion, and glaciation
- A.8.7 Describe the movement of people, ideas, diseases, and products throughout the world
- A.8.8 Describe and analyze the ways in which people in different regions of the world interact with their physical environments through vocational and recreational activities
- A.8.9 Describe how buildings and their decoration reflect cultural values and ideas, providing examples such as cave paintings, pyramids, sacred cities, castles, and cathedrals
- A.8.10 Identify major discoveries in science and technology and describe their social and economic effects on the physical and human environment
- A.8.11 Give examples of the causes and consequences of current global issues, such as the expansion of global markets, the urbanization of the developing world, the consumption of

natural resources, and the extinction of species, and suggest possible responses by various individuals, groups, and nations

Week One:

Any number of songs, poems, folk dances, and movement/games relating to US History/Geography can be introduced to the students for their morning warm-up exercises. This is a treat for students and teachers alike, as there is so much to choose from. Following this, the teacher can introduce the geography of the US in several ways. Relating to WI state geography is one way to begin. Another way that grabs students' interest is to ask them to draw a map of the US and label as many states as they can. The teacher can also begin with biographies/stories of the Vikings and of Columbus. The idea is to capture the students' interest and give them an overview. All of the above ideas can then be included in the first week's study. It is important, however, to honor the native peoples and to make sure students are aware that the US was not "discovered" by Europeans, as there were already people living here. Students can make maps of the entire US, getting a feel for the overall landforms of the country. They can also make salt clay maps, which give them a 3 dimensional look at the land. Stories and biographies of explorers are appropriate here as well. Students can write essays summarizing the stories and maps and essays can be entered into main lesson books. Historical fiction, including any books that give a feel for the land in various regions of the country are also helpful to the students understanding.

Weeks Two to Four:

One way to approach the next two to three weeks of the block is to study the US by region. Starting with the 13 colonies, the teacher can tell the story of the pilgrims, of Captain John Smith and of Pocahontas. Students can make maps of the region. The Revolutionary War is studied, but not in the same way as it will be in 8th grade. The approach should be more in story form, giving the students a sense of the key people involved. The cause and effect details will be better understood when the students are older. Following the 13 colonies and independence, westward expansion begins. First, students learn about the movement across the Cumberland Gap and the spread into the middle part of the country. The Louisiana Purchase and the story of Williams and Clark and Sacagawea gives the students a good picture of how the westward part of the country was settled. The Civil War is also discussed, but again, not in the same way as it will be later. Through it all, students should draw maps, make 3d maps, write essays, read books, and learn about the people, the music, and the poetry of the times. Students could do a project during this block as well, where they pick a state and write a research report, make a map of it, and do an overall presentation of the state. They can then have a State Fair, where they present their research to fellow classmates and other students in the school.

Teacher Resources:

1. Brierley, David L., *In the Sea of Life Enisled*
2. Curtis, Natalie, *The Indian's Book*
3. Kovacs, Charles, *The Age of Revolution*
4. Jayasuriya, Erica, *Traditions*
5. Lindenberg, Christoph, *Teaching History*
6. Mitchell, David, *Teaching History through the Grades*
7. Querido, René M.,*Geography and Man's Responsibility for the Earth*
8. Sobel, David, *Mapmaking with Children*
9. Streit, Jakob, *And There Was Light*
10. Ulin, Bengt, *Finding the Path*
11. Veltman, Willem Frederik, *Hellas*
12. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*
13. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
14. Wilkinson, Roy, *Teaching Geography*

15. Wilkinson, Roy, *Teaching History; The Middle Ages from the Renaissance to the Second World War*

Sixth Grade

6th Grade (Blocks are 3-4 weeks long)

- Roman History
- Pre-Algebra
- Biographies (reading and writing)
- Physics (Sound and Light)
- The Crusades
- Business Math
- Class Play (Drama)
- Geometric Drawing
- Geology
- Medieval History

In sixth grade, the child has crossed the threshold into adolescence. The child is coming wholly into himself and is now able to form abstract concepts, as he is now completely separated from the world around him. The sixth grader can think about the world in abstract forms, because she is abstracted from it. Concepts now reflect the world as pictures did not. These concepts are a reflection and are not real, yet because the sixth grader is in this new state of consciousness, abstract concepts are not deadening to him. The sixth grader has a real hunger to know the laws by which things work. Thus the studies of physics (light and sound), geology and mineralogy, geometry, Roman and Medieval history are now introduced. Physically, sixth graders are growing taller and more angular. They seem awkward, almost like strangers in their own bodies. And indeed, they are. It takes a number of years for them to feel comfortable with this new size and shape. Socially, the students are very interested in one another and much less interested in the teacher. They discover that they are individuals living amongst other individuals, and relationships are adjusted accordingly. The study of Roman History, with its interest in materialism and human rights, parallels the child's development, and it is quite beneficial educationally at this age (Spock, 1985; Wilkinson, 1992).

Roman History – Sixth Grade

The main trends of the Greco-Roman epoch were interest in the physical world, development of individuality and intellectual thinking. In the study of Greek history in fifth grade, these trends manifest in the philosophical thought, art, and the social order of the city-states. Rome, however, appears as the physical conqueror of the world, with acquisition of riches and worldly power. Courage, especially physical courage was praised and honored. Individuality manifests in the struggles to establish laws and find the right social system. For example, in the case of a dispute, people from earlier times referred to a deity, but the Romans appointed a third party, such as a judge. Intellectual thinking is more applied to practical matters and less to philosophical ideas. Romans were interested in building, fortification of cities, surveying, mining and engineering (Wilkinson, 1992).

The block can be organized around the following themes:

- The founding of Rome
- Political Developments
- The Development of Christianity
- Conquests and Collapse

During this block, students will read, write, listen to stories and biographies, discuss, draw, paint, and design.

Common Core Standards

Writing

Text Types and Purposes

1. Write arguments to support claims with clear reasons and relevant evidence.
a. Introduce claim(s), and organize the reasons and evidence clearly.
b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
d. Establish and maintain a formal style.
e. Provide a concluding statement or section that follows from the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through text selection, organization and analysis of relevant concept.
a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definitions, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables) and multimedia when useful to aiding comprehension.
b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information, and examples.
c. Use appropriate transitions to clarify the relationships among ideas and concepts.

d. Use precise language and domain-specific vocabulary to inform about or explain about the topic.
e. Establish and maintain a formal style.
f. Provide a concluding statement or section that follows from the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 6 on page 52).
6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
8. Gather relevant information from multiple print and digital sources, assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres…").
b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, …).

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Idaho Social Studies

Social Studies, Standard B: History Performance Standards - Grade 8

By the end of **grade eight**, students will:

B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used

B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history

B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history

B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians

B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently

B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights

B.8.7 Identify significant events and people in the major eras of United States and world history

B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society

B.8.9 Explain the need for laws and policies to regulate science and technology

B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations

B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho

B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

Weeks One and Two:
Begin the morning with warm-up activities that center around poetry and movement. The teacher can then begin with the prehistory of the foundation or founding of Rome, which begins with more of a legend, the story of the twins, Romulus and Remus. This story will take at least half of the first week. Students can write summaries, draw, and discuss. They can also read accounts on their own. Because the next section, Political Developments, is rather lengthy, it can begin during the first week and carry into the second week. This begins with the story of the seven kings and takes us to the year 509 BC, when the kings were abolished and the republic was established. The Patricians and the Plebeians would be studied next, then the Twelve Tables, a publication of a code of laws. Following this would be the study of the Triumvirate; Julius Caesar, Pompey, and Crassus. All of this should be given through biography with historical facts woven in. Main lesson books can feature essays, timelines, drawings, and poetry.

Weeks Three and Four:
Continue to start the morning with poetry and movement, perhaps singing as well. The stories of the Triumvirate may continue into this week, as this is a significant part of Roman History. At this point, the teacher might decide to assign research projects. Students could choose any aspect of Roman History or could focus on biographies of those important people that the teacher did not have time to include. Part of the main lesson can be devoted to reading, research, and writing. After the Triumvirate ceased to rule, the onset of Christianity took place. Even though the Roman Empire lasted another 400 years, the story became one of decline and disintegration. The end of the block will focus on the collapse of the Roman Empire. Throughout the last two weeks, students should continue to write, read, and illustrate. They can make presentations of their research at the end of the block. Also, at this point in the students' careers, block tests should begin. These teacher-made tests should include the types of test questions that students will encounter in high school, including multiple choice, short answer, matching, and short essays.

Teacher Resources:
Social Studies/ History

1. Brierley, David L., *In the Sea of Life Enisled*
2. Jayasuriya, Erica, *Traditions*
3. Lindenberg, Christoph, *Teaching History*
4. Mitchell, David, *Teaching History through the Grades*
5. Querido, René M.,*Geography and Man's Responsibility for the Earth*
6. Sobel, David, *Mapmaking with Children*
7. Streit, Jakob, *And There Was Light*
8. Ulin, Bengt, *Finding the Path*
9. Veltman, Willem Frederik, *Hellas*
10. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*

11. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
12. Wilkinson, Roy, *Teaching History; The Ancient Civilization of India, Persia, Egypt, Babylonia*
13. Wilkinson, Roy, *Teaching History; The Ancient Civilizations India, Persia, Egypt and Babylonia- The Fourth Cultural Epoch Greece and Rome*
14. Wilkinson, Roy, *Teaching Geography*

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Sixth Grade – Geometric Drawing

"The mathematics of sixth grade branches out in practical, abstract, and [a]esthetic directions…Geometrical design, which formerly had the character of free, artistic drawing, now becomes practice with instruments and is done with utmost accuracy." (Spock, 1985, p. 96). As the children enter into puberty, they have feelings that expand in numerous ways. The study of mathematics (in this case Geometry) can offer support in that their own subjectivity is not required. If the students learn the rules offered in Geometry, they learn self-confidence and trust in their thinking. In addition, students can see the beauty in mathematics, an almost magical quality that endears them to the subject. This particular block has a number of great books to support its design. *Geometric Drawing and the Waldorf School Plan*, by von Barravelle , *A Beginner's Guide to Constructing the Universe* by Michael Schneider, and *String, Straight-edge and Shadow* ; *The Story of Geometry* by Julia Diggins are all must-haves. They will lead the teacher in creating a very strong, well-thought out block.

Common Core Standards

Geometry

6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V=lwh$ and $V= Bh$ to find the volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems. (this standard will be met in 7^{th} grade)
6.G.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Week One:
There are some beautiful poems and songs that relate to the study of Geometry. "Cosmic Geometry" by Rex Raab is a must. Start the morning with warm-up exercises and then introduce the study of Geometry through history. The Egyptians used Geometry in their farming and building. Julia Diggins' book mentioned above has stories and activities that introduce the study. Having children first make their own compasses is a great way to begin to use tools. They can then be introduced to a good compass (make sure to purchase sturdy ones, as the flimsy compasses only cause frustration). It's also a good idea to give the children a list of vocabulary words, so they know what the teacher is referring to. Geometry is really a new language. The book "Geometric Drawing and the Waldorf School Plan" actually leads the teacher through the entire block. During the first week, students learn to use the compass and

the straight edge. They begin constructing 2-d flower and leaf-like forms. The teacher should lead the class step-by-step through the construction and then let them create. During the review portion of the class, have the students recall the steps to creating the form. Write these out on the board and have students write them in their main lesson books. The forms can also be created in their main lesson books as well. Make sure to get large books for this block. Coloring the forms with colored pencil is a creative process that students really love to do.

Week Two:
Begin the morning with warm-up activities. Follow this with review and then proceed on to more difficult forms. Use the same format as week one, with a step-by-step construction on the board. Some students will take off with this while others will need one-on-one assistance. A nice addition to the block is the creation of a 3-D string art project. Students can work on these after completing the assigned forms.

Week Three:
The morning begins the same as the previous two weeks. This week the focus will be more on formulas, but still the creation of the forms on paper using color is important. The protractor can be introduced so students can work on Geometrical proofs of the sums of angles of the triangle. Translations and tessellations are taught this week as are congruent shapes, rules of congruency, construction of angles (using compasses) and triangles. If the teacher needs more time to teach the above, she can take this into the 4th week. It is important for students to continue to write out the rules and steps in their main lesson books.

Teacher Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *Geometric Drawing and the Waldorf School Plan*
3. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
4. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
5. Diggins, Julia, *String, Straight-edge and Shadow*
6. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
7. Harrer, Dorothy, *Math Lessons for Elementary Grades*
8. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
9. Kretz, Harry, *Triangle, Circle and Soul*
10. Schneider, Michael S., *A Beginner's Guide to Constructing the Universe*
11. Schuberth, Ernst, *First Steps in Proven Geometry*
12. Wilkinson, Roy, *Teaching Mathematics to Age 14*
13. Wilkinson, Roy, *Teaching Mathematics*

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Sixth Grade – Biographies

The reading material in sixth grade goes hand-in-hand with the history curriculum and it should be used to supplement and enrich it. Students in sixth grade are hungry for factual content, for causes of things, and have a keen interest in others. Their ability to understand language at a deep level is recognized and utilized to further their understanding of what they read. Literary devices such as the use of dialogue, figurative language, personification, simile, metaphor, and irony are all studied and practiced. Students' writing also becomes longer and more involved. As a result, a block where students read and write biographies is something that fits perfectly with sixth graders. Students will participate in the entire writing process, from brainstorming, to rough drafts, to peer editing, to a final product. The biographies they choose to read can be selected by the teacher from a variety of historical figures that come out of their history curriculum. Teachers can set up literature circles based on time periods. Students will read, discuss, illustrate and write about the person they study.

Common Core Standards

Reading Informational Texts

Key Ideas and Details

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes)

Craft and Structure

4. Determine the meanings of words and phrases as they are used in a text including figurative, connotative, and technical meanings.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas

7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.

9. Compare and Contrast one author's presentation of events with that of another (e.g. a memoir written by and a biography on the same person).

Range of Text Complexity

10.By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

Text Types and Purposes

1. Write arguments to support claims with clear reasons and relevant evidence.
a. Introduce claim(s), and organize the reasons and evidence clearly.
b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
d. Establish and maintain a formal style.
e. Provide a concluding statement or section that follows from the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through text selection, organization and analysis of relevant concept.
a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definitions, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables) and multimedia when useful to aiding comprehension.
b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information, and examples.
c. Use appropriate transitions to clarify the relationships among ideas and concepts.
d. Use precise language and domain-specific vocabulary to inform about or explain about the topic.
e. Establish and maintain a formal style.
f. Provide a concluding statement or section that follows from the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 6 on page 52).
6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
8. Gather relevant information from multiple print and digital sources, assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres…").
b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, …).

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing
2. Interpret information presented in diverse media and formats (e.g. visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

Presentation of Knowledge and Ideas
4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Week One
The teacher can choose biographies from Roman History, Medieval History and/or the Crusades. If not all of the important characters were covered in the Roman History block, it might be interesting to finish it out by reading, writing, discussing and reporting on those who were not. The opening exercises will reflect the period of history chosen. Poetry, songs, movement, activities – all can be a part of this. Students can choose the biography they are interested in reading and the main lesson can be set up as a Readers/Writers Workshop. Students can read and then in groups they can work on answering questions that come out of the Common Core Standards for Reading Informational Texts. The illustrations will not be guided, so the teacher will need to decide how and what the students will illustrate. They could work on their black and white charcoal drawing, making portraits of the person they are reading about. If students are reading about one place in history, the teacher could have students make maps. Writing will commence after the students have read a sufficient amount.

Week Two:

This week continue with the same opening exercises. Follow this with reading time and discussion. The Writers Workshop will begin this week. Organize it around the pieces of the essay that the children will write as well as the areas of writing students need to work on, such as dialogue, simile, metaphor, etc. Students can also start thinking about their presentations. This would be a good time to create a rubric together, so everyone knows what is expected of them. They may want to do a multi-media presentation or dress up like the character. The class might also want to invite parents or other classes to come for their presentations.

Week Three:

During this week students will finish reading their books (if they have not done so yet) and will finish writing their essays and working on the multi-media presentation. The main lesson can be a work time, yet can still be structured with opening exercises, discussions, Writers Workshop, and time for art work. Make sure to schedule enough time at the end of the week for all students to present.

Teacher Resources

Language Arts

1. Aeppli, Willi, *Biography and Waldorf Education*
2. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
3. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
4. AWSNA, *Possible Source Material and Basic Book List*
5. Barton, Bob and Booth David, *Story Works*
6. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
7. Diller, Debbie, *Practice with Purpose*
8. Ditzel, Resi J., *Great Beginnings*
9. Dunn, Patricia A., *Talking, Sketching, Moving*
10. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*
11. Gillard, Marni, *Story Teller Story Teacher*
12. Les Parsons, *Expanding Response Journals in All Subject Areas*
13. Maier, Magda and Christoph Jaffke, *Poems for the Middle and Upper School*
14. McAllen, Audrey E., *Teaching Children to Write*
15. Mellon, Nancy, *Storytelling and the Art of Imagination*
16. Miller, Debbie, *Reading with Meaning*
17. Rose, Michael, *Living Literacy*
18. Wilkinson, Roy, *Teaching English*

History

1. Lindenberg, Christoph, *Teaching History*
2. Mantin, Peter, *The Italian Renaissance*
3. Ulin, Bengt, *Finding the Path*
4. Wilkinson, Roy, *Teaching History; The Ancient Civilizations India, Persia, Egypt and Babylonia- The Fourth Cultural Epoch Greece and Rome*

Sixth Grade – Physics: Sound and Light

The study of physics begins in sixth grade. Acoustics or sound theory is the first to be taken up. Students are exposed to sounds familiar to them first, such as the human voice, musical instruments and sounds from nature, then move on to sound phenomena of other types. Light and color is closely related to sound theory and this follows the acoustics study. Students begin the same way, with color experiences that are familiar to them and then move on to experiments with light and color. If possible, the teacher should completely darken the room for part of this block, so as to give the children the experience of total darkness. According to Rawson and Richter (2005), the main purpose of science teaching and learning at this age is to understand the core of the subject relevant to the human being and then to teach this in an imaginative way that appeals to the students' emotions. It is critical that students develop their power of observation. This is done by teaching the science topics through a phenomenological approach. Initially, students need to connect to the phenomenon through their emotions, but then raised from the subjective level so the qualities of the phenomenon can be grasped cognitively.

Idaho State Standards

Content Standard Science Standard D - Physical Science

Content Standard: Students in Idaho will demonstrate an understanding of the physical and chemical properties of matter, the forms and properties of energy, and the ways in which matter and energy interact.

Note: For more details of the content of physical sciences, see National Science Education Standards* *(1996, p. 115- 201).*

Rationale
Knowledge of the physical and chemical properties of matter and energy is basic to an understanding of the earth and space, life and environmental, and physical sciences. The properties of matter can be explained in terms of the atomic structure of matter. Chemical reactions can be explained and predicted in terms of the atomic structure of matter. Natural events are the result of interactions of matter and energy. When students understand how matter and energy interact, they can explain and predict chemical and physical changes that occur around them.

Science Performance Standard D Grade 4

Science, Standard D: Physical Science
Performance Standards - Grade 4

LIGHT, HEAT, ELECTRICITY, AND MAGNETISM

D.4.8 Ask questions and make observations to discover the differences between substances that can be touched (matter) and substances that cannot be touched (forms of energy, light, heat, electricity, sound, and magnetism)

Science, Standard D: Physical Science Performance Standards - Grade 8

By the end of **grade eight**, students will:

TRANSFER OF ENERGY

D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations

D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations in the outside world

D.8.10 Explain how models of the atomic structure of matter have changed over time, including historical models and modern atomic theory

Week One:

As mentioned above, start with Acoustics (sound theory) the first week. Warm up with songs and poems that relate to the content. One great song is "The Orchestra" (The violin's singing with joyous ringing, the violin's singing with joyous song….) Then begin by experiencing the phenomenon in simple, clear experiments with the human voice and with musical instruments. Study acoustic phenomenon such as vibration, pitch, volume, and tone. Study the connection of the sounding body to the above phenomenon. Do experiments with intervals, sound transmission and resonance. Biographies of famous people who have contributed to the study of Acoustics, such as Alexander Graham Bell can be told. Students should watch the teacher perform the experiment and observe closely. They can even work in small groups to reproduce the experiment that the teacher performed. On the first day, just have the students illustrate what they saw. Do not conclude until the following day. Let the beauty of the science and the awe of the experiment live with them and let them sleep on it. The next day review the experiment by seeing how much the students can remember. Write it up as a lab (question, hypothesis, materials, procedure). Then work on the results and conclusion together. What happened and why – this makes for a great discussion. Students' main lesson books will contain the illustration of the experiment as well as the lab write-up.

Weeks Two and Three:

Begin the morning with poetry about light and color. Add songs as well. One way to begin this part of the block is to darken the room (as mentioned above). Start with an absence of light, then add one light or candle at a time. Be sure to acknowledge the main source of our

light (the sun). Do experiments with color and how light affects it, which leads to the concept of complementary colors. Mix colors and study the color wheel. Study light and shadows, prisms, and how light changes depending on the medium in which it comes. Have children observe how differently light looks when it is observed through earth, air and water. Do experiments that show refraction, reflection, what is meant by opaque and translucent substances. Make a pin hole camera. In all of these experiments, the principles that underlie the various light and color phenomenon should be arrived at as end products discovered through concrete experiences as opposed to stating the theory first, then doing the experiment. Follow the same procedure as listed in week one, where the children illustrate the experiment, then reflect and review the following day. End the block with a block test. As previously mentioned, create the test using various types of questions, such as short answer, multiple choice, matching, and essay.

Teacher Resources:

Rawson, M. & Richter, T. *The Educational Tasks and Content of the Steiner Waldorf Curriculum.*

Spock, M. *Teaching as a Lively Art.*

Von Baravalle, H. *Introduction to Physics in the Waldorf Schools.*

Wilkinson, R. *The Physical Sciences I. For the Age Groups 12/13/14.*

Sixth Grade – Medieval History

The fall of the Roman Empire marked the beginning of the Middle Ages, otherwise known as the Medieval times. It is always important to know why a specific block should be taught to students at a specific age. According to Wilkinson (1992).

> At the age of twelve children themselves become philosophers and materialists. This is therefore the age to teach them about Greece and Rome. As their minds begin to grasp cause and effect, the continuing influence of Greece and Rome can be shown. At the age of thirteen and fourteen, there is a new awakening in the child's mind corresponding to the Reformation and the Renaissance in history, but before a new impulse becomes manifest, there is movement and chaos. Thus, as medieval history follows Roman history naturally in time, so it also corresponds to the child's uncertainties and gropings for a new hold in life at the age of twelve-thirteen. (p. 2)

Medieval history is marked by a definite uncertainty in how people viewed themselves and their rulers. Whereas in Roman times, the people had an interest in self-government, this seems to vanish at the beginning of the middle ages. Individualism seems to be totally lacking in the lower strata of society and is only present in the nobility. The nobility ruled. This period of history is aptly named the middle ages, for the development of humankind does not move forward in perfect chronological order. People slipped backward after the Roman Empire fell, and only certain individuals rose up to become knights or priests or monks. Wilkinson (1992) suggests themes to help the teacher navigate this block, because as always, there is much more than can be brought to the children in a month. He suggests the following: The Teutons, Arab Expansion, Feudalism, Struggles between Church and State, The Migrations, The Holy Roman Empire, The Crusades, and Dawn of a New Age. Wilkinson also suggests teaching about England, Knights and Chivalry, Everyday Life, and Monasteries and Monks.

In the overall sixth grade block rotation, Medieval History is broken into two blocks. Thus the second part of Wilkinson's list could be relegated to another history block later in the year. As always in a history block, many of the language arts are integrated in, such as reading, writing, speaking and listening.

Common Core Standards

Reading Informational Texts

Key Ideas and Details

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.

3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes)

Craft and Structure

4. Determine the meanings of words and phrases as they are used in a text including figurative, connotative, and technical meanings.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas

7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
9. Compare and Contrast one author's presentation of events with that of another (e.g. a memoir written by and a biography on the same person).

Range of Text Complexity

10.By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

Text Types and Purposes

1. Write arguments to support claims with clear reasons and relevant evidence.
    a. Introduce claim(s), and organize the reasons and evidence clearly.
    b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
    c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
    d. Establish and maintain a formal style.
    e. Provide a concluding statement or section that follows from the argument presented.

2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through text selection, organization and analysis of relevant concept.

    a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definitions, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables) and multimedia when useful to aiding comprehension.

b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information, and examples.
c. Use appropriate transitions to clarify the relationships among ideas and concepts.
d. Use precise language and domain-specific vocabulary to inform about or explain about the topic.
e. Establish and maintain a formal style.
f. Provide a concluding statement or section that follows from the information or explanation presented.

3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 6 on page 52).

6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
8. Gather relevant information from multiple print and digital sources, assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres…").

b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, …).

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.

a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing

2. Interpret information presented in diverse media and formats (e.g. visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

Presentation of Knowledge and Ideas

4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Idaho State Standards

Social Studies, Standard B: History Performance Standards – Grade 8

By the end of **grade eight**, students will:

B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used

B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history

B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history

B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians

B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently

B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights

B.8.7 Identify significant events and people in the major eras of United States and world history

B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society

B.8.9 Explain the need for laws and policies to regulate science and technology

B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations

B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho

B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

Weeks One - Four:

The medieval period extends from approximately 400 to 1400 AD. Organizing the block according to these dates could prove to be quite helpful, especially if a second block covers the second half of this time period. Music and poetry from the period can be used to begin the main lesson. Biographies will be the best way to teach about the period, with bits of history added to cover the main events. Wilkinson lists a number of important people from the time period whose biographies could be told. In addition, two other books, "Medieval Lives" by Norman E. Cantor and "Medieval People" by Eileen Power, contain biographies of women as well as men. The class teacher will need to pick and choose the biographies that she believes will best meet the needs of her class. Beginning with a review of the fall of the Roman Empire would lead the students into the time period of the middle ages and could be a great jumping off point for the first biography. The remainder of the time during the main lessons can be spent writing, reading, and illustrating. At least three different young adult books have been written about Eleanor of Aquitaine and reading them could be part of the morning's work. In addition, art from this time in history is totally fascinating and could be a great challenge for the students to study and reproduce. They could look at illuminated manuscripts and try to make part of their main lesson book look this way. Following the main lesson format of warm-up activities, review, new material and active work (reading, writing, discussing, drawing), will be the best way to approach this block. Reading can include literature circles with books such as the ones suggested above (see complete titles/authors in Teacher Resource section), Biographies on important people from the time period (ones that the teacher will not get to or that were not read in the previous block), or selections from history books. Students can discuss the readings in their groups and can learn about the times through the literature. Listening to, reviewing and writing about the biographies told by the teacher is another part of the main lesson. Writing essays, poetry, and reports as well as participating in a number of review strategies will help the students gain further insight into the block. Finally, the art work will round out the students' work, making this block not only one in which the history is studied, but where the art becomes as important a learning tool as the written and spoken word.

The teacher will want to create a block test to end this unit.

Teacher Resources

Social Studies/ History

1. Brierley, David L., *In the Sea of Life Enisled*
2. Cantor, N. *Medieval Lives*
3. Coventry, S. *The Queen's Daughter*
4. Gregory, Kristiana. *Eleanor: The Crown Jewel of Aquitaine*
5. Jayasuriya, Erica, *Traditions*
6. Konigsburg, E.L. *A Proud Taste for Scarlet and Miniver*
7. Lindenberg, Christoph, *Teaching History*

8. Mitchell, David, *Teaching History through the Grades*
9. Querido, René M.,*Geography and Man's Responsibility for the Earth*
10. Sobel, David, *Mapmaking with Children*
11. Ulin, Bengt, *Finding the Path*
12. Veltman, Willem Frederik, *Hellas*
13. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*
14. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
15. Wilkinson, Roy, *Teaching History; Te Middle Ages. From the Renaissance to the Second World War.*
16. Wilkinson, Roy, *Teaching Geography*

Sixth Grade – Business Math

As mentioned previously, students in sixth grade can begin to create order in their thinking due to the ability to think more logically. Because they are able to do this, algebra, specifically in the way of formulas, can be introduced. Business Math with its formulas for interest (simple and compound), commission, and taxes is a solid, practical way to introduce algebraic formulas. Students will also need to learn about percent if they have not already done so. Business Math also fits nicely with the study of Roman History, as many of its origins can be traced to that time. In addition to teaching the formulas in Business Math, it is important for the students to experience these formulas in a practical way. This block is a great venue for introducing a class business that could possibly earn money for their eighth grade class trip. Students can work on the business during the main lesson. Building toothpick bridges is another appropriate and fun activity where the students can practice the concepts learned in Business Math.

Common Core Standards

Ratio and Proportional Understandings

6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was one beak." "For every vote candidate A received, candidate C received nearly three votes."*
6.RP.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar,*
so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."

6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
b. Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*
c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

Expressions and Equations

6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
6.EE.2a Write, read and evaluate expressions in which letters stand for numbers.
a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as $5 - y$.*

6.EE.2b Write, read and evaluate expressions in which letters stand for numbers.
b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*

6.EE.2c Write, read and evaluate expressions in which letters stand for numbers.
c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas V = s3 and A = 6 s2 to find the volume and surface area of a cube with sides of length s = 1/2.*

(note: 6.EE.3-5 will be covered later in the year)

6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.

(note: 6.EE.8-9 will be covered later in the year)

Week One:
"A Journey Through Time in Verse and Rhyme" has some appropriate poems for this block. Students can also work on any seasonal songs or poems that the teacher deems appropriate for warm-up activities. Mental math fits beautifully in this block. Work with the students on decimal/fraction/percentage equivalencies. Start the block with a story about percentages and an introduction to interest. Dorothy Harrer's *"Math Lessons for Elementary Grades"* offers a nice way to introduce the block through story. After the introduction, work with the students on the concept of percent. If necessary, use Base 10 blocks to show a practical way to figure out percent. Also compare the study of percentages to fractions and decimals (during mental math as well). Following the work with percentages, the concept of interest can be introduced. First work with simple interest. Give the children a number of problems to work on. They can put the formula and sample problems in their main lesson books. Two projects mentioned in the introduction, a fund raiser for the 8th grade class trip and building toothpick bridges, can be introduced this first week. Both projects will take the entire block to a) complete or b) get established. Some ideas for fund raisers include making and selling tie-dyed t-shirts, making and selling cookies for snack time, and running a pizza day for the entire school (where students order pizza one day a week). These are just a few suggestions. The book "Building Toothpick Bridges" by Jeanne Pollard (http://www.amazon.com/Building-Toothpick-Bridges-Math-Projects/dp/0866512667) gives teachers a step-by-step account of how to organize this project. In the process, students learn accounting principles, how to write checks, and how to keep a budget.

Week Two:
Begin the second week with the same warm-up activities started in week one. Do mental math with the kids and follow this with a review. If you did not get to compound interest, that will be the first concept of this week. Bring the students problems with real life outcomes (simple story problems) and have them work on these until they seem to master the concept and learn the formula. The next concept to teach the children is commission. It will fit perfectly with the students' class business venture. Use their business to write and teach the concept and practice the problems/algorithm/formula. Again, Dorothy Harrar's book gives a very good outline on how to teach this part of the block. At the end of each class period, work on toothpick bridges and/or their class business. Allow at least 45 minutes at the end of each main lesson.

Week Three:
The final two concepts to teach are taxes and ratio/proportion. Start the morning with warm-up activities, including mental math. Follow with a review and then introduce new material. End the main lesson with work on their business and bridges. A block test is in order for this particular unit of study.

Teacher Resources
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Franceschelli, Amos, *Algebra; Mathematics for Grades 6, 7 and 8*
5. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
6. Harrer, Dorothy, *Math Lessons for Elementary Grades*
7. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
8. Pollard, Jeanne. *Building Toothpick Bridges*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

Sixth Grade – Class Play; Drama, Language Arts

The class play is an excellent opportunity to build a number of skills with the students, including skills in reading, writing, grammar, and public speaking as well as a time to build social skills. Most sixth graders are fully into adolescence, and the class play can help the students integrate some of these changes they are experiencing.. The play block is always a time to work on the social dynamics in the class as well. If a certain child is picked on or bullied, then this child is chosen for an important role in the play. If a "queen bee" is emerging from the girls, then she will have a role that causes her to be benevolent or a role where the character learns a difficult lesson. The curriculum is rich with opportunities for plays, and the teacher can choose something from the Roman History or Medieval History. Plays about Robin Hood are perfect for this age group. Students also work on a number of language arts skills during the play block, so it is a unit that uses "economy of teaching", a term Steiner employed regularly. If the play works as it is meant to for the class, they will come out on the other end of it, a more solidified group, ready to meet the challenges of their full blown adolescence!!

Common Core Standards

English/Language Arts

Speaking and Listening

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
    a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
    b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
    c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
    d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.
2. Interpret information presented in diverse media and formats (e.g. visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.
4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Language

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
    a. Ensure that pronouns are in the proper case (subjective, objective, possessive).
    b. Use intensive pronouns (e.g., *myself, ourselves*).
    c. Recognize and correct inappropriate shifts in pronoun number and person.
    . Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).
    e. Recognize variations from standard English in their own and others' writing and speaking, and identify and use strategies to improve
    expression in conventional language.*
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
    a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.
    b. Spell correctly.
3. Use knowledge of language and its conventions when writing, speaking, reading or listening.
    a. Vary sentence patterns for meaning, reader/listener interest, and style.
    b. Maintain consistency in style and tone.
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grade 6 reading and content*, choosing flexibly from a range of strategies.
    a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase.
    b. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., *audience, auditory, audible).*
    c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or to determine or clarify its precise meaning or its part of speech.
    d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings
    a. Interpret figures of speech(e.g., personification) in context.
    b. Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
    c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., *stingy, scrimping, economical, unwasteful, thrifty).*
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 5 topics and texts*, building on others' ideas and expressing their own clearly.

a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
b. Follow agreed-upon rules for discussions and carry out assigned roles.
c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.
d. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions.

Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.
Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.
Include multimedia components (e.g., graphics, sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.
Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards 1 and 3 for specific expectations.)

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Week One:

The first thing to do in a play block is to figure out what poems and songs the entire group will be using during the play. These then will be the warm-up activities/exercises to use for the 3-4 weeks of the block. Speech exercises are also perfect for this time, so as to get the students used to speaking slowly, loudly, and clearly. Following the warm-up activities, the teacher will introduce the class to the play. She can read it to them or the students can read it aloud. Following the first read through, a number of exercises can ensue. The teacher can have the students write for meaning, write about the characters, the setting – they can summarize the plot, find the problem, write about the solution – the possibilities are lengthy. Discussions can then take place. Students can discuss in a small group or with the whole group. The idea is to get the kids to really have a feeling for the play, for the story. Their grammar work can be taken from the play, as can spelling. The first week is really devoted to reading through the play a number of times, as a whole group and as small groups. As the week commences, the teacher will begin to know (if she does not already) who will be right for each of the parts. Ideally, parts should be assigned by the end of the first week so the students can begin to memorize.

Week Two:

Continue working on the songs, poems and speech activities. Also, if there are dances or movement activities in the play, this can be incorporated into the morning circle exercises. During the second week of the play block, students work on their lines with each other, in small groups and do read-throughs in the whole group. While working with small groups

(note: having a parent volunteer is very helpful during this block), other groups can work on a number of things. They can write out their parts, design scenery, (first small sketches, then large), make invitations, work on costumes, and make prop lists. The teacher can also create grammar lessons for the students to work on individually. Toward the end of the second week, the class can begin practicing in the auditorium (or wherever the play will take place). The actual blocking of the play then commences. Again, it is important to have other things for students to do who are not in certain parts of the play. They can work on scenery or on specific assignments (writing, grammar) that the teacher assigns as homework.

Week Three:
If the play block is three weeks long, then the entire two-hour main lesson should be devoted to practice. If students are not in a particular scene, they should be practicing their lines or working on scenery, costumes, or invitations. The goal for the week is to have a dress rehearsal on Thursday and present the play on Friday to the entire school. Oftentimes 6th graders do a second evening performance for parents, friends, and relatives. If the block is four weeks long, then this week's work is basically stretched into two weeks. It is up to the teacher and will depend on the difficulty of the play and how well the students learn their parts.

Teacher Resources

1. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
2. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
3. AWSNA, *Possible Source Material and Basic Book List*
4. Barton, Bob and Booth David, *Story Works*
5. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
6. Diller, Debbie, *Practice with Purpose*
7. Ditzel, Resi J., *Great Beginnings*
8. Dunn, Patricia A., *Talking, Sketching, Moving*
9. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List* Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
10. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
11. Heider, W. M. Von, *And then take Hands*
12. Holbook, Sara, *Practical Poetry*
13. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
14. King, Nancy, *Storymaking and Drama*
15. Gillard, Marni, *Story Teller Story Teacher*
16. O'Conner, Patricia T., *Woe is I*
17. Schwartz, Eugene, *Plays for Children and Communities*
18. Ward, William, *Hawthorne Valley Harvest; A Collection of Plays for the Elementary Grades*

Sixth Grade – Pre-Algebra, Probability and Statistics

Marjorie Spock (1985) believes that if mathematics is properly taught to students in the sixth grade, it can "endear itself to the children. It is important that enthusiasm be felt for the subject, for mathematics is the means whereby thought attains keenness and mobility. It is a trainer of the sense of truth" (p. 96). Not all private Waldorf schools teach pre-algebra in the sixth grade, however, the curricular indications call for the teaching of formulas (as demonstrated in the block on business math) as well as data collection and representation are clear. Furthermore, the Common Core standards require both. Sixth grade students are more than ready to handle the calculations that come with both topics and according to Rawson and Richter (2005) "The practical activities bring pupils toward life and reality and also to a description of basic connections" (p. 69). That being said, the formulas taught in the pre-algebra section of the block must be concretely experienced first before moving into the more abstract instruction that will take place in 7th and 8th grades.

Common Core Standards

Mathematics

Statistics and Probability

6.SP.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*
6.SP.2 Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
6.SP.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.
6.SP.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots
6.SP.5abcd Summarize numerical data sets in relation to their context, such as by:
a. Reporting the number of observations.
b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and /or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

Expressions and Equations

6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.
6.EE.2a Write, read and evaluate expressions in which letters stand for numbers.

a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*

6.EE.2b Write, read and evaluate expressions in which letters stand for numbers.
b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*

6.EE.2c Write, read and evaluate expressions in which letters stand for numbers.
c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas V = s3 and A = 6 s2 to find the volume and surface area of a cube with sides of length s = 1/2.*

6.EE.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

6.EE.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*

6.EE.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.

6.EE.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*

Week One:
Because there are two different math topics presented in this block, there are a couple of ways to present it. Both topics could be worked on each day OR probability and statistics could be taught the first two weeks and algebra the last week (or two). It is up to the teacher. However, it might be less confusing for the students to break it up into weeks (two for each). Begin with warm-up activities. Any songs and poems that deal with the math concepts would be appropriate as could seasonal songs/poems. Other warm-up activities could include work with decimal/fraction/'percent equivalencies, times tables (there will still be students who do not know these!!), and equivalent fractions. Begin the next section by reviewing the various types of graphs. Choose a project or projects for the students to collect data on. The students can be involved in coming up with ideas and ideally this should be a meaningful project, not something random like favorite ice cream flavors. Connecting this to the environment might be an option, as could questions surrounding issues of equity in the community. They can work individually or in groups. They will design their question, collect the data, then choose the type of graph that best meets the needs of their information. Graphs can be created on posters and/or using computer programs. Main lesson books should have examples of all of the various types of graphs as well as information on their data collection project.

Week Two:
Start with warm-up activities and follow with a review. New material this week might include graphs that are less typical, such as dot plots, line plots, stem and leaf plots, histograms and box plots. Try to bring real-world problems to the creation of these graphs so students understand their usefulness. Also, use colored pencils, rulers and a sense of aesthetics when designing the graphs. This helps engage the children. Probability study can follow. This is a very interactive math topic and students tend to like it. The book "Helping Children Learn Mathematics" by Reys, et. al is an excellent resource for what to include as well as what activities can be used to teach the concepts. Again, using real-world problems will further engage the students. Main lesson books will reflect definitions, problems, and charts/graphs.

Weeks Three/Four:
The teacher may or may not have time to devote two weeks to pre-algebra, so the most important thing to do is to introduce the concept to the students in a hands-on, practical manner. Using "Hands-on Equations" or Algebra Tiles is the best way to help students understand the very abstract algebraic concepts in a concrete way. Hands-on Equations is a kit that can be ordered (http://www.borenson.com/). The kit comes with three booklets as well as the manipulatives and leads the students through a step-by-step process that builds a strong understanding of algebra. If the class works through all three booklets and there is time left, an introduction to the x/y axis would be appropriate, as the Common Core standards actually call for this in 6th grade. Finish the unit with a block test.

Teacher Resources:
Mathematics

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Diggins, Julia. *String, Straight-edge and Shadow*

5. Franceschelli, Amos, *Algebra; Mathematics for Grades 6, 7 and 8*
6. Harrer, Dorothy, *Math Lessons for Elementary Grades*
7. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
8. Reys, et. al. *Helping Children Learn Mathematics*
9. Wilkinson, Roy, *Teaching Mathematics to Age 14*
10. Wilkinson, Roy, *Teaching Mathematics*

Sixth Grade – Geology

The study of geology is perfect for sixth graders as they grow in stature and their bony structures change. Nature studies to this point have centered around the animal and plant kingdoms but now changes to the mineral world. Students learn about the ground on which they stand, and are thankful for how firm and solid it is. The three types of rocks are studied (igneous, metamorphic, and sedimentary) and can be linked to geography, letting the students know where the masses of the three rock types are located. Students also study the structure of the earth and the layers, as well as the geologic timeline. From the study of rocks, the students are then led into minerals, metals, gems and crystals. Explorations of the mineral kingdom can lead to the human being and the presence of minerals in the human organism as well as the use that humans make of minerals in day to day life. Biographies of geologists can be told and students should participate in as many experiments as possible. Maps of rock beds and mineral deposits can be made as well.

Idaho State Science Standards

Content Standard Science Standard E - Earth and Space Science

Content Standard: Students in Idaho will demonstrate an understanding of the structure and systems of earth and other bodies in the universe and of their interactions.

Note: For more details of the content of earth and space sciences, see National Science Education Standards* *(1996, p. 115- 201).*

Rationale
By studying earth, its composition, history, and the processes that shape it, students gain a better understanding of the planet on which they live. In addition, all bodies in space, including earth, are influenced by forces acting throughout the solar system and the universe. Studying the universe enhances students' understanding of earth's origins, its place in the universe, and its future. Understanding these geologic, meteorological, astronomical, and oceanographic processes allows students to make responsible choices and to evaluate the consequences of their choices.

Science, Standard E: Earth and Space Science
Performance Standards - Grade 4

By the end of **grade four**, students will:

PROPERTIES OF EARTH MATERIALS

E.4.1 Investigate that earth materials are composed of rocks and soils and correctly use the vocabulary for rocks, minerals, and soils during these investigations

E.4.2 Show that earth materials have different physical and chemical properties, including the properties of soils found in Idaho

E.4.3 Develop descriptions of the land and water masses of the earth and of Idaho's rocks and minerals, using the common vocabulary of earth and space science

Science, Standard E: Earth and Space Science Performance Standards - Grade 8

By the end of **grade eight**, students will:

STRUCTURE OF EARTH SYSTEM

E.8.1 Using the science themes, explain and predict changes in major features of land, water, and atmospheric systems

E.8.2 Describe underlying structures of the earth that cause changes in the earth's surface

E.8.3 Using the science themes during the process of investigation, describe climate, weather, ocean currents, soil movements and changes in the forces acting on the earth

E.8.4 Using the science themes, analyze the influence living organisms have had on the earth's systems, including their impact on the composition of the atmosphere and the weathering of rocks

EARTH'S HISTORY

E.8.5 Analyze the geologic and life history of the earth, including change over time, using various forms of scientific evidence

E.8.6 Describe through investigations the use of the earth's resources by humans in both past and current cultures, particularly how changes in the resources used for the past 100 years are the basis for efforts to conserve and recycle renewable and non-renewable resources

Week One:

There are numerous songs and poems about rocks and minerals that the teacher can use to begin the morning lesson. It is always good to start a unit of study finding out what students already know as well as offering an appreciation for what we have. As mentioned above, being grateful for a solid foundation is one way to start. Teachers could use a KWL chart (Know, Want to Know, Learned) to begin. The first week of study should surround the exploration of the three rock types; igneous, metamorphic, and sedimentary. One way to do this is to give students several kinds of rocks from all three rock types. Let them classify anyway they would like. Then discuss the various ways geologists classify rocks. Go from there into the type of rock most often found in Idaho and move to the other types after that. Students should also study how the rock types were formed and where they are found. Maps can be made to show this. There are several fun and interesting experiments that can be done with the different rock

types. Students might want to make a rock collection. They should write about and illustrate the different rock types. This can go into the main lesson book.

Week Two:

Begin again with opening activities of songs and poems. This week focus on the layers of the earth. Although most Waldorf sources do not like to use models with children, this is really the only way they can envision the earth's layers as well as volcanoes and earthquakes. Try to connect the study of the layers with the students' experiences as well as with creativity and imagination. 3-D models can be made with clay and students can also illustrate the layers, using colored pencils or water color paints. They should also write about the layers in their main lesson books. Other topics for this week include volcanoes and earthquakes, which children always love to make models of. If the teacher wishes, students could be assigned reports to do on these natural disasters. The idea is not to glorify the disaster, but to remind the students how fragile our existence is and to have respect for nature. The geological timeline could also be explored during this week of study. Illustrations of the timeline can go in students' main lesson books.

Week Three:

Start the morning with the warm-up activities. Review the previous week's work and then introduce the study of minerals, metals, gems and crystals. Each substance could be given a day of exploration. Although this isn't much time, students should at least have a chance to be introduced to them. If the teacher feels students need more time with the topics from this week, students could work in groups to further study minerals, metals, gems and crystals. Their presentations could be made to the class. It could even be a jig-saw activity. http://www.jigsaw.org/ That being said, there are a number of excellent experiments and activities that students can do with all 4 substances. Students should also paint crystals sometime during the week. End the block with a unit test.

Teacher Resources

Rawson M. & Richter, T. *The Educational Tasks and Content of the Steiner Waldorf Curriculum*

Spock, M. *Teaching as a Lively Art*

Wilkinson, R. *Plant Study- Geology for the age groups 11 and 12*

Sixth Grade – Medieval History II

Students studied the first half of the middle ages earlier in the school year and are now ready to round out that study in this last block of the year. Marjorie Spock (1985) suggests always starting with the human being and ending with the human being. Given that the middle ages began around the year 400 AD and last through the beginning of the Renaissance, it would make sense for this second half of the block to begin with the Crusades and study the forming of guilds, towns, the Knights of St. John, the Teutonic Knights and the Knights Templar. Students can also learn about the Black Plague as a huge turning point in history. The block should be taught imaginatively through biographies and stories. Students can read, write, and illustrate their way through this block.

Common Core Standards

Reading Informational Texts

Key Ideas and Details

1. Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
2. Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
3. Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.g., through examples or anecdotes)

Craft and Structure

4. Determine the meanings of words and phrases as they are used in a text including figurative, connotative, and technical meanings.
5. Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
6. Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

Integration of Knowledge and Ideas

7. Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
8. Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
9. Compare and Contrast one author's presentation of events with that of another (e.g. a memoir written by and a biography on the same person).

Range of Text Complexity

10. By the end of the year, read and comprehend literary nonfiction in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

Text Types and Purposes

1. Write arguments to support claims with clear reasons and relevant evidence.
    a. Introduce claim(s), and organize the reasons and evidence clearly.
    b. Support claim(s) with clear reasons and relevant evidence, using credible sources and demonstrating an understanding of the topic or text.
    c. Use words, phrases, and clauses to clarify the relationships among claim(s) and reasons.
    d. Establish and maintain a formal style.
    e. Provide a concluding statement or section that follows from the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through text selection, organization and analysis of relevant concept.
    a. Introduce a topic; organize ideas, concepts, and information, using strategies such as definitions, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables) and multimedia when useful to aiding comprehension.
    b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information, and examples.
    c. Use appropriate transitions to clarify the relationships among ideas and concepts.
    d. Use precise language and domain-specific vocabulary to inform about or explain about the topic.
    e. Establish and maintain a formal style.
    f. Provide a concluding statement or section that follows from the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
    a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
    b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
    c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
    d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events.
    e. Provide a conclusion that follows from the narrated experiences or events.

Production and Distribution of Writing

4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach. (Editing for

conventions should demonstrate a command of Language standards 1-3 up to and including grade 6 on page 52).
6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting.

Research to Build and Present Knowledge

7. Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.
8. Gather relevant information from multiple print and digital sources, assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

a. Apply *grade 6 Reading standards* to literature (e.g., "Compare and contrast texts in different forms or genres…").
b. Apply *grade 6 Reading standards* to literary nonfiction (e.g., "Trace and evaluate the argument and specific claims in a text, …).

Range of Writing

10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on *grade 6 topics, texts, and issues*, building on others' ideas and expressing their own clearly.
a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.
c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.
d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing
2. Interpret information presented in diverse media and formats (e.g. visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.
3. Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.

Presentation of Knowledge and Ideas
4. Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.
5. Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 6 Language standards 1 and 3 for specific expectations.)

Idaho State Standards

Social Studies, Standard B: History Performance Standards - Grade 8

By the end of **grade eight**, students will:

B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used

B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history

B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history

B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians

B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently

B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights

B.8.7 Identify significant events and people in the major eras of United States and world history

B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society

B.8.9 Explain the need for laws and policies to regulate science and technology

B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations

B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho

B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

Weeks One - Three:

As previously mentioned, begin this block where the first one left off, hopefully with the Crusades. Music and poetry from the period can be used to begin the main lesson. Biographies will be the best way to teach about the period, with bits of history added to cover the main events. Just as in the first block on Medieval History, Wilkinson's book lists a number of important people from the time period whose biographies could be told. In addition, two other books, "Medieval Lives" by Norman E. Cantor and "Medieval People" by Eileen Power, contain biographies of women as well as men. The class teacher will need to pick and choose the biographies that she believes will best meet the needs of her class. Beginning with a review of the fall of the high points of the first block on Medieval History would lead the students into the time period of the Crusades and could be a great jumping off point for the first biography. The remainder of the time during the main lessons can be spent writing, reading, and illustrating. The King Arthur books would be perfect to read during this block. In addition, art from this time in history is totally fascinating and could be a great challenge for the students to study and reproduce. Following the main lesson format of warm-up activities, review, new material and active work (reading, writing, discussing, drawing), will be the best way to approach this block. Reading can include literature circles with books such as the ones suggested above (see complete titles/authors in Teacher Resource section), Biographies on important people from the time period (ones that the teacher will not get to or that were not read in the previous block), or selections from history books. Students can discuss the readings in their groups and can learn about the times through the literature. Listening to, reviewing and writing about the biographies told by the teacher is another part of the main lesson. Writing essays, poetry, and reports as well as participating in a number of review strategies will help the students gain further insight into the block. Finally, the art work will round out the students' work, making this block not only one in which the history is studied, but where the art becomes as important a learning tool as the written and spoken word.

The teacher will want to create a block test to end this unit.

Teacher Resources

Social Studies/ History

1. Brierley, David L., *In the Sea of Life Enisled*

2. Cantor, N. *Medieval Lives*
3. Coventry, S. *The Queen's Daughter*
4. Gregory, Kristiana. *Eleanor: The Crown Jewel of Aquitaine*
5. Jayasuriya, Erica, *Traditions*
6. Konigsburg, E.L. *A Proud Taste for Scarlet and Miniver*
7. Lindenberg, Christoph, *Teaching History*
8. Mitchell, David, *Teaching History through the Grades*
9. Querido, René M.,*Geography and Man's Responsibility for the Earth*
10. Sobel, David, *Mapmaking with Children*
11. Ulin, Bengt, *Finding the Path*
12. Veltman, Willem Frederik, *Hellas*
13. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 2*
14. The Waldorf Multi-Cultural Committee, *Multiculturalism in Waldorf Education Issue No. 3*
15. Wilkinson, Roy, *Teaching History; Te Middle Ages. From the Renaissance to the Second World War.*
16. Wilkinson, Roy, *Teaching Geography*

Seventh Grade Overview

As students enter the 7th grade, we as teachers need to have a deep understanding of child development in order to properly meet them where they are. The fact that most students will be at the height of puberty is common knowledge. What often is not known, however, are the best ways to work with them. It is important to know where they are emotionally as well as academically, and the curriculum does a beautiful job of addressing both. It is an exciting stage of development. Students now have the capacity to think in different ways. They begin to challenge accepted ideas and they have new ways of looking at the world. They are asking the questions "Who am I? and What am I going to be?" They are met with enormous cultural pressures. They need us as their champions and guides, but not in a sentimental way. They also need our warmth, love, and sympathy, but with a holding of high standards. They continue to need beauty in their lives, perhaps now more than ever. As teachers, it is important that we have a sense of humor, that we know we need to "sharpen our swords", not depend on our ego, gently redirect them, let them win from time to time, but also let them know when it hurts. Remember – they have to get up every morning and BE THEIR AGE!

Physically, the students are heavier and more self-concerned. They are going through intense physical and emotional change. They are not interested in us! They need a healthy curriculum for development balanced with humor. Because the curriculum has such a rich foundation, we as teachers just need to bring the subjects into clarity. Developmentally, they have the gift/capacity of causal thinking and it is up to us as teachers to give them something substantial to "chew on". We need to have an authority of knowledge and as a result, it is very important to know our subjects well.

7th Grade (Blocks are 3 weeks long)

- Chemistry I
- The Renaissance
- 2D Geometry
- Creative Writing, Poetry reading and writing
- Physics – Electricity, Magnetism, Mechanics
- The Age of Exploration/Reformation
- Pre-Algebra
- World Geography
- Class Play (Drama)
- Health and Nutrition, Intro to Physiology
- Astronomy

7th Grade – Inorganic Chemistry

This block on inorganic chemistry is the perfect way to start the year. Seventh graders have changed over the summer and they need to be engaged in something new and dramatic. Beginning the block with fire and burning totally captures their interests. During the first week, talk about fire and all of its characteristics. Fire has many qualities and can be a metaphor for other things as well. Fire can be a metaphor for life – a rising and falling, ashes to ashes. A human being is born in warmth, grows rapidly, then goes back to ashes. Fire is not just a chemical process. Follow the study of fire with a study of acids and bases. Students will learn that everything is an acid, a base, or a salt. They will learn all of the ways to test items. They will also learn that burning is a "breathing out" process. From the study of acids and bases, students will then go into learning about the lime cycle. They will learn that many things breathe out, including humans, animals, and plants. The block should end with a block test.

Idaho State Standards – Science

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form-yl10BRu75y search_block_fo **Science, Standard D: Physical Science Performance Standards - Grade 8**

By the end of **grade eight**, students will:

PROPERTIES AND CHANGES OF PROPERTIES IN MATTER

D.8.1 Observe, describe, and measure physical and chemical properties of elements and other substances to identify and group them according to properties such as density, melting points, boiling points, conductivity, magnetic attraction, solubility, and reactions to common physical and chemical tests

D.8.2 Use the major ideas of atomic theory and molecular theory to describe physical and chemical interactions among substances, including solids, liquids, and gases

D.8.3 Understand how chemical interactions and behaviors lead to new substances with different properties

D.8.4 While conducting investigations, use the science themes to develop explanations of physical and chemical interactions and energy exchanges

MOTIONS AND FORCE

D.8.7 While conducting investigations of common physical and chemical interactions occurring in the laboratory and the outside world, use commonly accepted definitions of energy and the idea of energy conservation

TRANSFER OF ENERGY

D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations

D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations in the outside world

Add writing standard here

Week One:

As mentioned above, start this week with burning, with fire. A great song to include in the morning warm-up exercises is "Rise up Oh Flame". Do it as a round. Talk about fire with the kids. Ask them about campfires, about enjoying fires with family and friends, talk about the warmth of fire, the color, how it is calming. Then talk about the fact that fire also has other qualities. It can be a metaphor for other things. First there is smoke, then light. The smoke spirals up. A seed acts the same way – it grows up, sprouts, the leaves spiral. After a fire has spent itself, just ashes remain, the falling back to earth, gravity. The same thing happens with a plant. Stick with plant products for burning. Gather dried sticks, leaves, long stems, grasses, thistles (they are cottony), roots, and dried flowers. Take the students outside and have some sort of safe fire pit. Have them look for the natural expression of the substance that is burning. What predominate? Light or heat? Look at the ashes. (save them for testing the following week) Look for subtleties of color; look for the shape of the flame. Then create a chart and draw what they saw. From here, go on to the study of burning with candles. There is a great book by Michael Faraday called "The Natural History of the Candle". Just start by burning a candle. Have the students quietly observe. Have them look at the flame, the shadow, wick, blue darkness with a halo, solid going to liquid, etc. Then put a small screen on top of the flame. Move it up and down through the fire. Observe the smoke and the color. Then gather the black (carbon) by putting a small piece of glass above the flame. You can then collect the smoke by using bent glass tubing. You can see the white smoke better with a black backdrop. If you scrape the inside of the tube, you will find wax. Ask the students where the hottest part of the flame is. Try putting a piece of square painting paper over the flame. Observe. Try putting a cold Petri dish over top of the candle. It mists up. Get two asbestos screens and two candles. Hold the screen in between. See what happens with them. Another great experiment is to get 3 jars (1/2 pint, pint, and quart). Put votive candles in each. Light the candles, put a lid on each and time how long it takes for the flame to go out. Do many repetitions and take averages. See how it relates to the size of the jars. Yet another experiment involves putting a candle in the bottom of a shallow dish. Put water in the dish part way up the candle. Light the candle. Put a jar over it. Observe. End the week with a burning of metals that you can order from a "Spectral Analysis Kit". It's quite colorful and impressive.

Have the kids put all of the experiments into their main lesson books. At the end of the experiment, have them draw the apparatus. That is homework. The next day (this is important to do this on the next day), review what happened. Use different review strategies. Then write up the experiment, using materials, procedure, results, conclusion. You can conclude together.

Week Two:

This week you will focus on acids and bases. Start out by talking about the process of burning. It has a life force that breathes out. Think of shellfish. There is a breathing process that forms the layers of the earth. Ask students if minerals can breathe their last breath. Leo Snijders has a great book – "Chemistry in Grade 7". You will need some equipment for this week. Get some flasks, rubber stoppers with holes in them, glass tubing. You will also need HCl (a solution of water and HCl – always pour acid into water, never water into acid – 15% acid, the rest water). Put marble chips into a flask with a rubber stopper. Put the Hcl solution in another flask with a stopper. Hook it all up with glass tubing (see picture). Light a candle. Put it at the end of the glass tubing. The CO2 puts out the flame. See if you can collect the CO2 into a small beaker. Here is what happened: The acid met the limestone (in the marble chips). The limestone breathed out what was left in it (CaCO2). This is heavy, distinguishing air.

On day two, have students begin (as always) with a review and a write-up of the experiment. Then have ready some lemon juice and baking soda. Have the kids taste each and describe what they taste. Pour baking soda onto their hands, and then run water on hands. Describe this as well. This week you will be using red cabbage juice as an indicator. To make it, cut up red cabbage and boil it with water. Save the water and put it in a jar. This will be your indicator. Test the lemon juice and the baking soda with the red cabbage juice. Also test some of the ash left from the things that were burnt last week. Also try and capture some CO2. Test this as well.

Day three will be a day of testing a number of liquids. You can set this up as a demonstration in test tubes, then give the kids cups and masking tape to make their own. Test HcL, Baking Soda, Lemon Juice, Bleach, Ammonia, Drano. Pour red cabbage juice into each. Have students draw this. Why use red cabbage juice as an indicator? Cabbage as sulfur in it and sulfur is a sun energy. It brings light in and fosters color. Purple cabbage is a balance between blue and red. If a substance is acidic, it tips one way (red) and if it is basic, it tips the other (blue).

Day four begins with a review and a write-up of the experiment from day three. Today you can do the following experiment. You will need a D-flagration spoon, a large erlamier flask, sulfur, a Bunsen burner, and a lighter. Put red cabbage juice in the bottom of the large flask. Put sulfur in the spoon and melt it over the Bunsen burner. Then put the spoon into the flask and cover it with foil. The cabbage juice turns pink. This means the burnt sulfur is acidic (acid gas is released when the sulfur is oxidized. O2 combines with the mineral (sulfur).

On day 5, have the students review and write up the experiment from yesterday. Today's experiment involves Making Lime Water. You will need calcium oxide, water, a flask, and a filter. Mix the calcium oxide and the water, then filter it into the flask. Observe. You get a

murky liquid in the flask and white powder on the filter. It's called slaked lime. Test this with litmus paper or red cabbage juice. (Chemical formula is CaCo3) Have students illustrate the set up. Then do a second experiment. This one is called "Lime – a Salt?" You will need lime water (use what was just made), carbonated water, a rubber cork, and a flask. Mix the lime water with the carbonated water. The water bubbles and is cloudy. Sediment is on the bottom. This is a salt. Have students test this. Then illustrate. Discuss yesterday's experiment and write it up.

Week Three:

Begin with morning activities. Then review Friday's experiment. What happened? Why? A salt was formed. A salt is a substance which through the action of heat or other agency disintegrates into two other substances – one acidic and one basic. Alternately, basic and acidic substances when mixed together form a salt. Students can then make salt crystals. This experiment can be found in most chemistry books. They should illustrate this experiment, then write up the one from yesterday.

The remainder of the week will be devoted to studying the lime cycle. Information about The lime cycle can be found in the book "Chemistry in Grade 7 Waldorf Schools" by Leo Snidjers. The process involves building an outdoor kiln, getting the fire really hot (as hot as a fire in a grill) and placing a piece of limestone on the hot coals. Leave the piece of limestone on the coals for the entire day. At the end of the day go back out to the kiln. Take the piece of limestone out (you will need tongs) and take it inside. Once inside, put the limestone in a container. Drop water on it. Have the students observe. They can then write up the experiment the next day. Other experiments for the lime cycle can be found in Snidjers' book. End the block with a block test. Review for the test the day before.

Resources:

"The Natural History of the Candle" by Michael Faraday

"Chemistry in Grade 7 Waldorf Schools" by Leo Snidjers.

Seventh Grade – The World Awakes

The study of the Renaissance is the perfect metaphor for where the seventh grade student is in his/her development. At that time in history, humans were inching away from safety (as are 7th graders), looking for broader horizons, searching, exploring, and questioning. They questioned whether or not the world was flat, they were restless, not satisfied with the old answers. Discoveries were made in the heavens and on earth, in art and music, poetry and drama. This block should be taught using the stories (biographies) of real people who lived in that time. By hearing these biographies, students can relate to the humans that lived at that time, who experienced the new discoveries. They should learn poetry from that time as well as songs. The idea is for the seventh grader to feel their way into the experience of this particular time in history, because it is a recapitulation of where they are in their development. Students will do quite a bit of writing in this block, as well as some art work and experimentation.

Social Studies, Standard B: History Performance Standards - Grade 8

By the end of **grade eight**, students will:

B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used

B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history

B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history

B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians

B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently

B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights (this will take place in 8th grade)

B.8.7 Identify significant events and people in the major eras of United States and world history

B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society

B.8.9 Explain the need for laws and policies to regulate science and technology

B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations

B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho (this was studied in 4th grade and will be revisited in 8th grade)

B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

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Social Studies, Standard A: Geography Performance Standards - Grade 8

By the end of **grade eight**, students will:

A.8.1 Use a variety of geographic representations, such as political, physical, and topographic maps, a globe, aerial photographs, and satellite images, to gather and compare information about a place

A.8.2 Construct mental maps of selected locales, regions, states, and countries and draw maps from memory, representing relative location, direction, size, and shape

A.8.3 Use an atlas to estimate distance, calculate scale, identify dominant patterns of climate and land use, and compute population density

A.8.4 Conduct a historical study to analyze the use of the local environment in a Idaho community and to explain the effect of this use on the environment (this standard was met in 4th grade and will also be met in 8th grade)

A.8.5 Identify and compare the natural resource bases of different states and regions in the United States and elsewhere in the world, using a statistical atlas, aerial photographs, satellite images, and computer databases (this standard will be met in 8th grade)

A.8.6 Describe and distinguish between the environmental effects on the earth of short-term physical changes, such as those caused by floods, droughts, and snowstorms, and long-term physical changes, such as those caused by plate tectonics, erosion, and glaciation

A.8.7 Describe the movement of people, ideas, diseases, and products throughout the world

A.8.8 Describe and analyze the ways in which people in different regions of the world interact with their physical environments through vocational and recreational activities

A.8.9 Describe how buildings and their decoration reflect cultural values and ideas, providing examples such as cave paintings, pyramids, sacred cities, castles, and cathedrals

A.8.10 Identify major discoveries in science and technology and describe their social and economic effects on the physical and human environment

A.8.11 Give examples of the causes and consequences of current global issues, such as the expansion of global markets, the urbanization of the developing world, the consumption of natural resources, and the extinction of species, and suggest possible responses by various ndividuals, groups, and nations (this standard will be met in 8th grade)

Common Core Standards

Writing – Text Types and Purposes

Standard 1

Standard: Write arguments to support claims with clear reasons and relevant evidence.
a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understand
Of the topic or text
c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.
d. Establish and maintain a formal style.
e. Provide a concluding statement or section that follows from and supports the argument presented.

Standard 2
Standard: Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organizatio
content.
a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classificati
and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
d. Use precise language and domain-specific vocabulary to inform or explain about the topic.
e. Establish and maintain a formal style.
f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Standard 3

Standard: Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
e. Provide a conclusion that follows from and reflects on the narrated experiences or events.

Production and Distribution of Writing

Standard 4
Standard: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
Standard 5
Standard: With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 7 on page 52).
Standard 6
Standard: Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.
Research to Build and Present Knowledge
Standard 7
Standard: Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
Standard 8
Standard: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
Range of Writing
Standard 10
Standard: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single setting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Week One:

There are a number of ways to organize this block. The best place to start is by looking at the students in front of you. What biographies do they need to hear? Do they need to hear about strong women? Artists? Astronomers? As a teacher, you can present this block chronologically or by topic, such as Explorers, Artists, and Scientists. For the sake of ease, this curriculum will arrange the block by topic. The first week will be Explorers. Begin with warm-up activities and include poems and songs from this period of history. Where the history/geography studies left off in 6th grade will determine where you begin. It might be fun to start with Marco Polo, then tell the biographies of Columbus, Magellan, Prince Henry the Navigator, and any number of other explorers. Obviously you will not be able to get to all of them, so perhaps this might be the focus of your research reports for this block. Following the warm-ups, tell the biography of your choice. On the following day, review what you told. Have the students take notes during the review, then use these notes to prepare an essay. This can take place during their work time. Entries into the main lesson book can include edited essays, timelines, portraits, and maps.

Week Two:

This week could focus on artists from the Renaissance. Choose from any number of artists, but make sure to include Di Vinci, Michelangelo, and Raphael. Describe to the students what it was like to BE these artists. Have them lie on the floor on their backs and tape a piece of paper to the bottom of their desks. Draw a piece of the Sistine Chapel. Create egg drops, then go to a state park where there is a fire tower. Drop the contraption off the top – see whose egg does not break. Make paint from eggs and

pigment. Compare the artists to one another. Again, begin the morning with warm-up exercises, then go on to a review of the previous day's biography. Have students take notes, then write essays, poems, letters, etc. during their work time. After editing, put these in the main lesson books.

Week Three:

During this week you can focus on scientists – Galileo, Tico Brahae, Bruno – all would be great biographies to give. However, if you prefer to save these until the Astronomy block, you could focus this week on the Medici Family or discuss the English and French Renaissance. (not just Italian). Whatever you choose, begin the morning with warm-up exercises, then move onto a review. Tell the biographies, and then have the students work on writing, drawing, and finishing up their main lesson books for this block. They should take a block test at the end of the week. Main lesson books should have a rubric (created by you and the students), so you have a grading guide. If students choose to do research reports on an explorer, they could dress like the explorer, then give their presentation in front of the class.

Resources:

Social Studies/ History

1. Bigelow, Bill and Bob Peterson, *Rethinking Globalization; Teaching for Justice in an Unjust World*
2. Brierley, David L., *In the Sea of Life Enisled*
3. Cantor, Norman F., *Medieval Lives*
4. Kovacs, Charles, *The Age of Revolution*
5. Jayasuriya, Erica, *Traditions*
6. Lindenberg, Christoph, *Teaching History*
7. Mantin, Peter, *The Italian Renaissance*
8. Mitchell, David, *Teaching History through the Grades*
9. Querido, René M.,*Geography and Man's Responsibility for the Earth*
10. Sobel, David, *Mapmaking with Children*
11. Staley, Betty, *Splinters of the Sun*
12. Streit, Jakob, *And There Was Light*
13. Ulin, Bengt, *Finding the Path*
14. Whittock, Martyn, *The Reformation*
15. Wilkinson, Roy, *Teaching Geography*
16. Wilkinson, Roy, *Teaching History IV; The Middle Ages*
17. Wilkinson, Roy, *Teaching History; The Middle Ages from the Renaissance to the Second World War*

Seventh Grade – 2 –D Geometry

Seventh graders are very ready for the formulas involved in 2-D Geometry. After studying Geometric Drawing in 6th grade where they were introduced to the compass and Geometry artistically, they can now move into a more focused, logical view of Geometry. It gives the students a new way of thinking about mathematics and actually offers those students who do not always do well with algorithms a chance to be highly successful. Students experience proofs for the first time and this too, is a new way of thinking for them. The logical progression of a geometric proof is very appealing to the seventh grade student. Students learn to construct and bisect angles, learn about congruence, learn how to construct all of the various types of triangles, as well as other two dimensional shapes, learn the formulas for various shapes, and begin to learn some basic proofs. It is also important for the teacher to give the students an overview of the history of Geometry. This can be done through short biographies. As always, keep the arts involved. Find poetry about Geometry and use color and beauty in the main lesson books.

Common Core Standards

Geometry

7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
7.G.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
7.G.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids. (This standard will be met in 8th grade)
7.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between circumference and area of a circle.
7.G.5 Use facts about supplementary, complementary, vertical, adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
7.G.6 Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. (This standard will be met in 8th grade)

Week One:
Begin with warm-up exercises. Believe it or not, there are some great poems written about Geometry! Students can also move together to form shapes. Introduce the students to Geometry through a brief history. One can find this online or in various books (please see resources). There is also a short outline at the end of this block. Choose 3-4 constructions to do each day with the students (less if the group has trouble keeping up). All students should

have a good compass and ruler. Make constructions on the board and have students make theirs either directly into their main lesson books, or on drawing paper, that can later be transferred into their main lesson books. On the following day, review how the constructions are made by writing steps together on the board. These steps can then be transferred into students' main lesson books. The first week start from the beginning – construct a straight line, a ray and a line segment. From there, move to angels. Construct each type of angle. Teach students how to bisect angles. Then go to congruent angles. Students need to learn side, angle, side; side, side, side, and angle, side, angle. Make main lesson books colorful and beautiful.

Week Two:
Continue with the warm-up exercises. Review the construction from Friday of Week One. This week work on constructing congruent triangles, working on and reviewing side angle side; side, side, side; and angle, side, angle congruence properties. Teach students to construct a pentagon. You may also have time to teach the formula for the area and perimeter of a circle. Have students write steps in main lesson books. By writing and constructing the 2-d shapes, students have a better chance of retaining the information. Add color and borders to main lesson books.

Week Three:
Begin the morning with warm-up exercises. Review the main lesson work from Friday of Week Two. This week students can focus on learning some beginning proofs (such as the Pythagorean Theorem) as well as constructing the Vesica Pices. Both are wonderful challenges and "ah ha" moments for the students. The book "A Beginner's Guide to Constructing the Universe" has great information in it. End the week with a review and a block test.

Teacher Resources:

1. Baravalle, Hermann von, *Geometric Drawing and the Waldorf School Plan*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Diggins, Julia. *String, Straight-edge and Shadow*
5. Glass, Julie, *The Fly on the Ceiling; A Math Myth*
6. Harrer, Dorothy, *Math Lessons for Elementary Grades*
7. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
8. Kretz, Harry, *Triangle, Circle and Soul*
9. Schneider, Michael S., *A Beginner's Guide to Constructing the Universe*
10. Schuberth, Ernst, *First Steps in Proven Geometry*
11. Wilkinson, Roy, *Teaching Mathematics to Age 14*
12. Wilkinson, Roy, *Teaching Mathematics*

History of Geometry – An Outline

Egyptian – 3000 BC – 1500 BC. Practical techniques for architecture and rough surveying

Greek: Thales – 600 BC – From Miletus developed the first geometrical proofs

Pythagoras - 525 BC – Born on Samos, traveled and studied in Egypt and Asia, then founded a brotherhood in southern Italy. Introduced formal definitions. Pythagorean Theorem. (His complete biography is a great one to tell students)

Plato – 380 BC – Developed the presently-used system of definitions, axioms, and postulates. Founded an Academy which required a study of geometry for admission. Wrote about the Platonic Solids in connection with the elements of earth, air, fire, water, and ether. Was an Athenian.

Alexander the Great – Founded centers of Greek learning throughout his empire. The most important one was Alexandria in Egypt.

Euclid – 280 BC – Alexandria. Collected and organized geometric knowledge into the thirteen books known as the Elements, which was used as a textbook for 2000 years. Abraham Lincoln studied it and recommended its study to lawyers.

Archimedes – Syracuse in Sicily. Discovered many geometrical laws as well as their application to physical problems.

Ptolemy. Alexandria. Wrote a text on the geocentric system of planetary motion, which was used until the time of Copernicus. It used a system of multiple circular motion known as epicycles.

Copernicus – 1500 – Polish astronomer who developed a system of epicycles with the sun in the center (heliocentric)

Kepler – 1600. German – Discovered that planets move in elliptical orbits around the sun. Laid the groundwork for Newton's celestial mechanics. Related the Platonic Solids to the spacing of planetary orbits known in his time.

Seventh Grade – Creative Writing

As previously mentioned, seventh grade students live deeply in their feeling life. They are exploring "who" they are, trying on different personas, and figuring out what they stand for and what they can believe in. It is important for teachers to bring beauty and positivity to the students. They need a healthy curriculum for their development. As a result, this creative writing block should be pulled out of their feeling experience and should be heart-felt. There are two wonderful books to guide this block; "The Art and Science of Teaching Composition" by Dorit Winter and "Wish,Wonder, Surprise: An Anthology for Creative Writing in Grades Seven and Eight" compiled by Eugene Schwartz. Two additional books, "Rose, Where did you Get That Red" by Kenneth Kock and "Sing Me the Creation" by Paul Mathews can also give the teacher many wonderful ideas for classroom projects and activities.

Common Core Standards

Writing

Standard 3

Standard: Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
e. Provide a conclusion that follows from and reflects on the narrated experiences or events.

Production and Distribution of Writing
Standard 4
Standard: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)
Standard 5
Standard: With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 7 on page 52).
Standard 6
Standard: Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

Research to Build and Present Knowledge
Standard 7
Standard: Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
Standard 8
Standard: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
Range of Writing
Standard 10
Standard: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single setting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Weeks One - Three:
The warm-up exercises can include a number of lovely poems and songs, as well as classics (i.e. "The Road Not Taken" by Robert Frost) and fun movement activities. Using the guidance of the two books mentioned above, the teacher can organize the block around the topics of "Wonder" (week one), "Wish" (week two) and "Surprise" (week three). The books mentioned above have a plethora of activities for students that are fun and inspirational. Use lots of poetry and have the students write lots of poetry. Poets such as William Carlos Williams, Robert Frost, Rilke, Carl Sandberg, Nikki Giovanni, to name a few, all have great poetry that 7th graders relate to. Do group writing, individual writing, shared writing, listing, - any kind of creative writing that is appropriate. Have the students choose poems throughout the week (their own) that they really like and work on those to put in their main lesson books. Also, choose different types of poetry to teach and various techniques (i.e. alliteration). Finally, have the students choose a poet to research and write about. They can memorize a poem by this artist. At the end of the three weeks, have an authors' tea. Invite parents. Students can give a short biography of their poet and recite their poem for the audience. They can also share their own poetry. This is an incredibly fun and powerful block. Make the most of it!!

Teacher Resources:

Language Arts

1. Aeppli, Willi, *Biography and Waldorf Education*
2. Alfred, Suellen, Sandy Smith and Betty D. Roe, *Teaching Through Stories: Yours, Mine, and Theirs*
3. Arbuthnot, May Hill, *The Arbuthnot Anthology of Children's Literature*
4. AWSNA, *Possible Source Material and Basic Book List*
5. Barton, Bob and Booth David, *Story Works*
6. Cornett, Claudia E. *Creating Meaning through Literature and the Arts*
7. Diller, Debbie, *Practice with Purpose*
8. Ditzel, Resi J., *Great Beginnings*
9. Dunn, Patricia A., *Talking, Sketching, Moving*
10. Fenner, Pamela Johnson and Karen L. Rivers, *Waldorf Student Reading List*

11. Garlieb, Malisa, *Literacy Learning in a Waldorf Classroom: A Meditation on Briar Rose*
12. Gillard, Marni, *Story Teller Story Teacher*

13. Greer, Anna, *The Power of Grammar; A Phenomenological Approach*
14. Hall, Donald, *Contemporary American Poetry*
15. Harrer, Dorothy, *An English Manual; Compiled from Lessons in the Elementary School*
16. Holbook, Sara, *Practical Poetry*
17. Intrator, Sam M. and Megan Scribner, *Teaching with Fire*
18. Jaffke, Christoph, *Tongue Twisters and Speech Exercises*
19. King, Nancy, *Storymaking and Drama*
20. Kipling, Rudyard, *The Best Fiction of Rudyard Kipling*
21. Koch, Kenneth, *Rose, where did you get that red?*
22. Maier, Magda and Christoph Jaffke, *Poems for the Middle and Upper School*
23. Matthews, Paul, *Sing Me the Creation*
24. McAllen, Audrey E., *Teaching Children to Write*
25. Mellon, Nancy, *Storytelling and the Art of Imagination*
26. Meyer, Rudolf, *The Wisdom of Fairy Tales*
27. Miller, Debbie, *Reading with Meaning*
28. Miller, E. Ethelbert, *In Search of Color Everywhere A Collection of African-American Poetry*
29. The National Storytelling Association, *Tales as Tools*
30. O'Conner, Patricia T., *Woe is I*
31. Peckham, Margaret, *Fairy Tales*
32. Perrin, Robert, *Pocket Guide to APA Style*
33. Rose, Michael, *Living Literacy*
34. Rubright, Lynn, *Beyond the Beanstalk*
35. Schwartz, Eugene, *Wish, Wonder, Surprise*
36. Strunk, William Jr. and E.B. White, *The Elements of Style*
37. Whitman, Walt, *Complete Poetry and Selected Prose*
38. Williams, Oscar, *The New Pocket Anthology of American Verse*
39. Wilkinson, Roy, *Teaching English*
40. Wynstones Press, *Autumn; Poems, Songs and Stories*
41. Wynstones Press, *Gateways; Poems, Songs and Stories*
42. Wynstones Press, *Spring; Poems, Songs and Stories*
43. Wynstones Press, *Summer; Poems, Songs and Stories*
44. Wynstones Press; *Winter; Poems Songs and Stories*
45. Zaid, Gabriel, *So Many Books*

Seventh Grade – Physics: Electricity, Magnetism, Mechanics

As previously mentioned, the seventh grade can be a tremendously challenging and rewarding year for the children. The seventh grader stands on the brink of puberty. Not only are great physical changes taking place, but a major shift in cognitive development is also under way. The children are enthusiastic to express themselves and to assert their independence more strongly. Self-awareness and social relationships become a primary focus. In the **sciences**, work continues with **physics.** In **mechanics,** simple machines are introduced: the lever, inclined plane, wedge, wheel and axle, pulley and screw. The concepts of effort and resistance are presented, and in their calculation the child is reinforced in his/her understanding of ratio. Work in **optics, heat, electricity, and magnetism** is extended, with an emphasis on the practical application of these phenomena. As with the block on chemistry, the unit is taught using a phenomenological approach. In other words, the teacher models an experiment and the students observe closely. Often times they get to reproduce the experiment themselves allowing a hands-on approach. Students write about the experiment and illustrate the set-up. This block also lends itself to telling great biographies of important scientists in the field physics.

Idaho State Standards.

Science, Standard D: Physical Science Performance Standards - Grade 8

By the end of **grade eight**, students will:

PROPERTIES AND CHANGES OF PROPERTIES IN MATTER

D.8.1 Observe, describe, and measure physical and chemical properties of elements and other substances to identify and group them according to properties such as density, melting points, boiling points, conductivity, magnetic attraction, solubility, and reactions to common physical and chemical tests

D.8.2 Use the major ideas of atomic theory and molecular theory to describe physical and chemical interactions among substances, including solids, liquids, and gases

D.8.4 While conducting investigations, use the science themes to develop explanations of physical and chemical interactions and energy exchanges

MOTIONS AND FORCES

D.8.5 While conducting investigations, explain the motion of objects by describing the forces acting on them

D.8.6 While conducting investigations, explain the motion of objects using concepts of speed, velocity, acceleration, friction, momentum, and changes over time, among others, and apply these concepts and explanations to real-life situations outside the classroom

D.8.7 While conducting investigations of common physical and chemical interactions occurring in the laboratory and the outside world, use commonly accepted definitions of energy and the idea of energy conservation

TRANSFER OF ENERGY

D.8.8 Describe and investigate the properties of light, heat, gravity, radio waves, magnetic fields, electrical fields, and sound waves as they interact with material objects in common situations

D.8.9 Explain the behaviors of various forms of energy by using the models of energy transmission, both in the laboratory and in real-life situations in the outside world

Week One:

The teacher can arrange the weeks how she/he believes they should occur. In this instance, Magnetism will come first, followed by Electricity, then Heat, and finally Force and Motion. Begin the morning with warm-up exercises. There are great poems about all of these topics. Look in "A Journey Through Time in Verse and Rhyme" . Also, look on the internet. Poetry abounds for science topics as do songs. Some of them are somewhat elementary, but there are others that would be age-appropriate. According to Wilkinson (1984), when teaching children about magnetism (and electricity), a "different sort of wonder can be aroused in the child's soul" (p. 28). Wilkinson continues by stating that when teaching these concepts, we are "delving into matters and using forces the nature of which is not fully understood" (p. 28). The best place to begin is by teaching students about the lodestone, first used by the Chinese in ancient times to help with direction. The teacher can demonstrate this and can show how to make a magnet from a lodestone. Students can then experiment with various substances, seeing which are magnetic and which are not. They should also learn that the force of a magnet extends beyond its physical form and can be transferred through space and even through other objects. Students can make primitive compasses using a magnet and a needle (see Wilkinson: "The Physical Sciences I: For Age Groups 12/13/14"). Students can make an electromagnet with a nail and a magnet and can learn about magnetic fields using a magnet and iron filings. After each demonstration, if possible, let the students experiment with the materials in small groups. Have them illustrate what they observed. On the following day, ask students to recall what happened in their experiment. They can write-up lab reports that go along with their illustrations. Conclude together (i.e. why did this happen) with the students. Put the illustrations and the write-ups in their main lesson books. If the study of magnetism does not take the entire week, then teach children about heat and heat energy. The concepts of conduction, convection and radiation should be covered. Again, Wilkinson's book has several great ideas about what/how to teach this concept, as do traditional science textbooks.

Week Two:

Begin with warm-up activities. This week the focus will be on electricity. Interestingly, electricity has been around for a rather short period of time in our civilization, yet we are very familiar with it. Students can discuss the morality of this invention/discovery. Biographies on Ohm, Volta, Ampere and Farady can be told. Students should study the following concepts regarding electricity: static electricity, the storage of electricity through the creation of the battery (dry cell), the telegraph, simple circuits, parallel circuits, what materials conduct electricity, how to light a small light bulb. Experiments for each of the concepts/topics can be shown to the students and they can also perform them in small groups. Students should illustrate the set-up after conducting the experiment. The following day, have the students recall what happened, then conclude together. They can then write-up the experiment. Put drawings and lab reports in main lesson books. Also, students can write essays over the biographies told. Timelines can be made relating the discoveries regarding electricity to history.

Weeks Three and Four:

This next topic might take two weeks (including the review and block test). Mechanics is a fun and active concept for the students. Let the students do experiments, observe, and discover the laws themselves from observation of the phenomenon. Things to discover: pulleys, levers, inclined planes, fulcrum, wheel and axle. Wilkinson's book is an excellent guide to help teachers work through the next part of this unit. Use the same format as in the past two weeks, where students see a demonstration, observe, try things themselves, illustrate the set-up, then the next day discuss and conclude. This part of the unit also includes mathematical formulas. They are relatively simple and the students feel quite capable when they figure them out. End the block with a review and a block test.

Teacher Resources:

Introduction to Physics in the Waldorf School: The Balance Between Art and Science. Hermann von Baravalle, Ph.D.

The Physical Sciences I: For Age Groups 12/13/14. Roy Wilkinson.

7th Grade – Age of Exploration/Reformation

The seventh grade can be a tremendously challenging and rewarding year for the children. The seventh grader stands on the brink of puberty. Not only are great physical changes taking place, but a major shift in cognitive development is also under way. The children are enthusiastic to express themselves and to assert their independence more strongly. Self-awareness and social relationships become a primary focus.

Historically, a similar period of change took place in Western civilization around the end of the fifteenth century. The study of the Renaissance, Reformation, and the Age of Exploration reflects what the children are experiencing within themselves. The children learn biographies of great figures who went against the traditional, prevailing views of their day in their own search for truth, freedom, and self-expression. Through studying the lives of Prince Henry the Navigator, Martin Luther, Christopher Columbus, Elizabeth I, and others, the children find reassurance that in their struggle to become themselves they also can contribute to the world.

The block begins by taking up where the Renaissance block ended. Teachers can arrange the block by separating the Explorers from those who took part in the Reformation or they can teach the block chronologically. Again, the idea is for the seventh grader to feel their way into the experience of this particular time in history, because it is a recapitulation of where they are in their development. Students will do quite a bit of writing in this block, as well as some art work, poetry, and music.

Social Studies, Standard B: History Performance Standards - Grade 8

By the end of **grade eight**, students will:

B.8.1 Interpret the past using a variety of sources, such as biographies, diaries, journals, artifacts, eyewitness interviews, and other primary source materials, and evaluate the credibility of sources used

B.8.2 Employ cause-and-effect arguments to demonstrate how significant events have influenced the past and the present in United States and world history

B.8.3 Describe the relationships between and among significant events, such as the causes and consequences of wars in United States and world history

B.8.4 Explain how and why events may be interpreted differently depending upon the perspectives of participants, witnesses, reporters, and historians

B.8.5 Use historical evidence to determine and support a position about important political values, such as freedom, democracy, equality, or justice, and express the position coherently

B.8.6 Analyze important political values such as freedom, democracy, equality, and justice embodied in documents such as the Declaration of Independence, the United States Constitution, and the Bill of Rights (this will take place in 8th grade)

B.8.7 Identify significant events and people in the major eras of United States and world history

B.8.8 Identify major scientific discoveries and technological innovations and describe their social and economic effects on society

B.8.9 Explain the need for laws and policies to regulate science and technology (this will be covered in 8th grade)

B.8.10 Analyze examples of conflict, cooperation, and interdependence among groups, societies, or nations

B.8.11 Summarize major issues associated with the history, culture, tribal sovereignty, and current status of the American Indian tribes and bands in Idaho (this was studied in 4th grade and will be revisited in 8th grade)

B.8.12 Describe how history can be organized and analyzed using various criteria to group people and events chronologically, geographically, thematically, topically, and by issues

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Social Studies, Standard A: Geography Performance Standards - Grade 8

By the end of **grade eight**, students will:

A.8.1 Use a variety of geographic representations, such as political, physical, and topographic maps, a globe, aerial photographs, and satellite images, to gather and compare information about a place

A.8.2 Construct mental maps of selected locales, regions, states, and countries and draw maps from memory, representing relative location, direction, size, and shape

A.8.3 Use an atlas to estimate distance, calculate scale, identify dominant patterns of climate and land use, and compute population density

A.8.4 Conduct a historical study to analyze the use of the local environment in a Idaho community and to explain the effect of this use on the environment (this standard was met in 4th grade and will also be met in 8th grade)

A.8.5 Identify and compare the natural resource bases of different states and regions in the United States and elsewhere in the world, using a statistical atlas, aerial photographs, satellite images, and computer databases (this standard will be met in 8th grade)

A.8.6 Describe and distinguish between the environmental effects on the earth of short-term physical changes, such as those caused by floods, droughts, and snowstorms, and long-term physical changes, such as those caused by plate tectonics, erosion, and glaciations. (This standard will be met in 8th grade)

A.8.7 Describe the movement of people, ideas, diseases, and products throughout the world

A.8.8 Describe and analyze the ways in which people in different regions of the world interact with their physical environments through vocational and recreational activities

A.8.9 Describe how buildings and their decoration reflect cultural values and ideas, providing examples such as cave paintings, pyramids, sacred cities, castles, and cathedrals

A.8.10 Identify major discoveries in science and technology and describe their social and economic effects on the physical and human environment

A.8.11 Give examples of the causes and consequences of current global issues, such as the expansion of global markets, the urbanization of the developing world, the consumption of natural resources, and the extinction of species, and suggest possible responses by various individuals, groups, and nations (this standard will be met in 8th grade)

Common Core Standards

Writing – Text Types and Purposes

Standard 1

Standard: Write arguments to support claims with clear reasons and relevant evidence.
a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.

b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.

c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), reasons, and evidence.

d. Establish and maintain a formal style.

e. Provide a concluding statement or section that follows from and supports the argument presented.

Standard 2
Standard: Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.

a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.

d. Use precise language and domain-specific vocabulary to inform or explain about the topic.

e. Establish and maintain a formal style.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Standard 3

Standard: Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.

b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.

c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.

d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.

e. Provide a conclusion that follows from and reflects on the narrated experiences or events.

Production and Distribution of Writing
Standard 4
Standard: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.)

Standard 5

Standard: With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate a command of Language standards 1-3 up to and including grade 7 on page 52).

Standard 6
Standard: Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

Research to Build and Present Knowledge
Standard 7
Standard: Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.

Standard 8
Standard: Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
Range of Writing

Standard 10
Standard: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single setting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Week One:

Even though the students are in 7th grade, starting the day with morning exercises – poetry, music, games – is still a great way to engage students and get them thinking. Poetry and music about the time period and from the time period are both appropriate. If the teacher is starting the block chronologically, Prince Henry the Navigator, the Portuguese Prince who organized voyages, was born in1394 and died in 1460. Columbus was born in 1451 and died in 1506, Magellan was born in 1480, died in 1521. It might also be interesting to tell the biography of Mercator, who was a map maker. These four biographies would easily make up the first week of the block. Students should make maps of the voyages, write essays of the explorer's lives, create portraits (using charcoal is a great medium for 7th graders), and timelines. All of these assignments can go in their main lesson books.

Week Two:

The same poetry and music can be worked on at the beginning of each day, followed by a review. Remember to use various review strategies in order to keep the students engaged. It

might be interesting to start the week with a biography of Sir Thomas More, the scholar who wrote "Utopia", and follow this with the biography of Martin Luther. Students can write their own 95 Arguments (or a smaller number if they can't come up with that many!). Henry VIII, the King of England who instigated England's reform is a great biography to tell as is John Calvin's. Students should again make maps of where the events took place, they can write poetry, essays, and engage in creative writing pieces. Discussing the acts of each person in the context of our world today is a great exercise for 7th graders.

Week Three:

By this time in the block, students should have the poems and songs memorized. Poetry can be written into their main lesson books and/or performed at a school assembly. Start each morning (after the morning exercises) with a review, and then move into the final week of this block. As in every history block, make sure to include famous women. Queen Elizabeth's biography is fascinating and should definitely be included, as is Mary Queen of Scots. Sir Francis Drake, Englishman who sailed around the world can be included as can Sir Walter Raleigh. The idea of this block is to really let the students know that things were changing – the old guard no longer held sway. Individuals could make a difference.

Teacher Resources:

1. Bigelow, Bill and Bob Peterson, *Rethinking Globalization; Teaching for Justice in an Unjust World*
2. Brierley, David L., *In the Sea of Life Enisled*
3. Jayasuriya, Erica, *Traditions*
4. Kovacs, Charles *The Age of Discovery*
5. Lindenberg, Christoph, *Teaching History*
6. Mitchell, David, *Teaching History through the Grades*
7. Querido, René M.,*Geography and Man's Responsibility for the Earth*
8. Sobel, David, *Mapmaking with Children*
9. Staley, Betty, *Splinters of the Sun*
10. Streit, Jakob, *And There Was Light*
11. Ulin, Bengt, *Finding the Path*
12. Whittock, Martyn, *The Reformation*
13. Wilkinson, Roy, *Teaching Geography*
14. Wilkinson, Roy, *Teaching History; The Middle Ages from the Renaissance to the Second World War*

Seventh Grade – Pre-Algebra

This is the first block in Algebra for the students. They are now ready for more abstract work in mathematics, work with equations and formulas, as conceptual thinking has come into its own. The mind is now mature enough to grasp things that are not quite real and as a result, Algebra is the perfect subject for this age (Wilkinson, 1983). The general application and transformation of formulae and equations in practical life situations form a central part of mathematical study. Algebra, an Arabic word, means "the reunion of broken parts". There are many ways to make this block fun and assessable to the students, including the use of biographies, interesting formulas and proofs, and manipulatives, such as "Hands-on Equations" or Algebra Tiles. Definitely invest in a balance in order to show the students the idea behind balancing an equation.

Common Core Standards

The Number System

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

NS 1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.

NS 1a. Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*

NS 1b. Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.

NS 1c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

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NS 1c. Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.

Expressions and Equations

Use properties of operations to generate equivalent expressions.

EE1 and EE2 are covered in 8th grade

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

EE 3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.

For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about

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For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 3/4 inches long in the center of a door that is 27 1/2 inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

EE 4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

EE 4a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.

For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?

EE 4b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.

For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.

Week One:
It is always great to start the day with warm-up exercises, which in the case of this block could be mathematical poetry or music (not always easy to find). Active games could also be used to begin the day. An introduction to Algebra could come in the form of biographies of 9th century Persian Al Khwarezm, or 17th century Parisian Francois Viete. (or both). Using a balance is also crucial in the beginning introduction of this block. If you are fortunate enough to have "Hands-on Equations", this is also an excellent way to introduce the concept. During the first week, the problems will start off relatively easy, letting the students get used to the unknown variable. For example, start with $4x=8$ and move quickly to $4x + 2 = 10$. Move on to using parentheses. For example, $9(3x + 1) = 25x + 13$. Give the students several problems each day to solve. Remember to review each day's lesson at the beginning of the following day. Have them put the problems in their main lesson books.

Week Two:
Continue with the morning warm-up exercises. Review last week's work and move on to the next level of equations. If you follow Hands-on Equations, the second week introduces negative numbers. There are several concrete ways to do this. Ron Jarman's book, "Teaching Mathematics in Rudolf Steiner Schools for Classes I-VIII" has two great activities for the introduction of negative numbers. Once students have a grasp of negative numbers, equations with negative numbers can be introduced. Jarman's book also has a number of practical applications for Algebraic equations. Have the students put the problems in their main lesson books each day.

Week Three:
Start with warm-up exercises as in the previous two weeks. Review last week's work and continue with more advanced equations. The Hands-on Equations booklet introduces 2 variables in week 3. Seventh grade students are capable of doing this. If you are not able to get "Hands-on Equations", use an Algebra textbook to design the problems in this block. Also, as mentioned above, Ron Jarman's book is a great resource as is Roy Wilkinson's book "Teaching Mathematics to Age 14". End the block with a block test.

Teacher Resources

1. Andersen, Henning, *Active Arithmetic!*
2. Baravalle, Hermann von, *The Teaching of Arithmetic and the Waldorf School Plan*
3. Baravalle, Hermann V., *The Waldorf Approach to Arithmetic*
4. Franceschelli, Amos, *Algebra; Mathematics for Grades 6, 7 and 8*
5. Harrer, Dorothy, *Math Lessons for Elementary Grades*
6. Jarman, Ron, *Teaching Mathematics in Rudolf Steiner Schools for Grades I-VIII*
7. Kretz, Harry, *Triangle, Circle and Soul*
8. Wilkinson, Roy, *Teaching Mathematics to Age 14*
9. Wilkinson, Roy, *Teaching Mathematics*