

Foss correlations

The correlations contained within this chart were made using Minnesota Academic Standards and comparing activities that had similar student objectives and learner outcomes. Where possible, I have made direct links to FOSS lessons within each module. Where there were no distinct similarities between activities, I looked at the MN standards and made links that had general connections to the curriculum that could extend the learning opportunities provided by FOSS. There are also some specific focus recommendations for some of the PLT activities, for example: for the 3rd/4th grade measurements unit, the PLT activity #48 Field, Forest and Stream is recommended, focusing on the measurement opportunities in that PLT activity. Also, some PLT activities matched the FOSS modules very well, but were recommended for a different grade level. (See Kindergarten/Wood & Paper/Getting to Know Paper. The PLT activity #51 Make Your Own Paper is recommended for grades 1-8. With simple modifications, or perhaps the help of older student mentors, this activity meshes perfectly with the FOSS module.) There are also direct literature links between the FOSS Science Stories and the PLT recommended books. I have included these links in several places in the chart.

The different grades have been color coded for ease of usability: Kindergarten is green, 1st/2nd grade is red, 3rd/4th grade is purple, and 5th/6th grade is blue. The FOSS modules are listed in the yellow column, and the PLT activities are in the orange column.

| Grade/ Strand | FOSS Module | Investigation | PLT Activity | MN Science Standards Benchmarks |
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| K Physical Science | Wood and Paper | Getting to Know Wood | #2: Get in Touch with Trees. #13: We All Need Trees #22:Trees as Habitats #62: To Be A Tree | Science: IV, G, 1: Observe and describe the environment using the five senses. IV, B, 2: Know simple ways that living things can be grouped Language Arts: I, B, 1: Use words to describe and name people, places and things. 2: Use words to describe location, size, color, shape and direction. 5: Learn new words through explicit instruction. I, C, 1: Demonstrate literal comprehension by asking and answering questions about narrative and informational text. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults. 8: Ask and respond to questions. |
| K Physical Science | Wood and Paper | Getting to Know Paper | #51: Make Your Own Paper (modified for grade level) | Social Studies K-3: VI, B, 2: Recognize and explain that natural resources and human made resources are used in the production of goods and services. |
| K Physical Science | Fabric | Fabric all Around | #2: Get in Touch with Trees. | Science: IV, G, 1: Observe and describe the environment using the five senses. Language Arts: I, B, 1: Use words to describe and name people, places and things. 2: Use words to describe location, size, color, shape and direction. 5: Learn new words through explicit instruction. I, C, 1: Demonstrate literal comprehension by asking and answering questions about narrative and informational text. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults. 8: Ask and respond to questions. |
| K Life Science | Animals Two By Two | Goldfish and Guppies | #20: Environmental Exchange Box | Science: IV, B, 1: Compare and contrast living and non living things. 2: Know simple ways that living things can be grouped. |
| K Life Science | Animals Two By Two | Land and Water Snails | #6: Picture This #46: Schoolyard Safari | Science: IV, G, 1: Observe and describe the environment using the five senses. Social Studies K-3: V, A, 1: Describe the location of people, places and things by using positional words. Language Arts: I, B, 1: Use words to describe and name people, places and things. 2: Use words to describe location, size, color, shape and direction. 4: Use context to predict and infer word meanings. 5: Learn new words through explicit instruction II, C, 1: Use a period after sentences when prompted. 2: Use knowledge of basic phonics to spell. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults 8: Ask and respond to questions. Mathematics: III, A, 1: Sort objects in a set by one attribute such as size, shape, color or thickness. |
| K Life Science | Animals Two By Two | Big and Little Worms | #22: Trees as Habitats #25: Birds and Worms | Science: IV, B, 1: Compare and contrast living and non living things. 2: Know wimple ways that living things can be grouped. |

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| K Life Science | Animals Two By Two | Big and Little Worms | | <p>Mathematics: II, A, 2: Count the number of objects in a set and identify the quantity. 3: Compare the number of objects in two or more sets. III, A, 1: Sort objects in a set by one attribute such as size, shape color or thickness. 3: Recognize, describe and extend repeating patterns involving up to three elements using objects, pictures, sounds or movements. IV, A, 1: Represent data about classmates or their surroundings by using objects or pictures.</p> |
| K Life Science | Animals Two By Two | Pill Bugs and Sow Bugs | #24: Nature's Recyclers | <p>Science: IV, B, 1: Compare and contrast living and non living things. 2: Know Simple ways that living things can be grouped.</p> |
| K Life Science | Trees | Fall Trees | #21: Adopt a Tree #22: Trees as Habitats #27: Every Tree for Itself #41: How Plants Grow (variation) #61: The Closer You Look #67: How Big is Your Tree? #87: Earth Manners | <p>Science: I, B, 1: Observe and describe common objects using simple tools. IV, B, 1: Compare and contrast living and non living things. IV, G, 1: Observe and describe the environment using the five senses. III, B, 1: Describe daily and seasonal changes in weather. Social Studies K-3: VI, A, 1:3: Understand and explain that the concept of scarcity means that one cannot have all the goods and services that one wants. 4: Give examples of tradeoffs (opportunity costs). Language Arts: I, B, 1: Use words to describe and name people, places and things. 2: Use words to describe location, size, color, shape and direction. 3: Use words to describe actions. 4: Use context to predict and infer word meanings. 5: Learn new words through explicit instruction. I, C, 1: Demonstrate literal comprehension by asking and answering questions about narrative and informational text. 2: Make predictions from illustrations and story content. 3: Write or draw a response that demonstrates comprehension. 4: Relate texts to prior knowledge and experiences. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults. 5: Recite and respond to poems, rhymes and songs. 6: Respond orally to language patterns in stories and poems. 7: Use voice level appropriate for language situation. 8: Ask and respond to questions. Mathematics: III, A, 3: Recognize, describe and extend repeating patterns involving up to three elements using objects, pictures, sounds or movements. IV, A, 1: Represent data about classmates or their surroundings by using objects or pictures.</p> |
| K Life Science | Trees | Leaves | #1: The Shape of Things #64: Looking at Leaves | <p>Science: I, B, 1: Observe and describe common objects using simple tools. Language Arts: I, B, 2: Use words to describe location, color, size, shape and direction. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults Mathematics: IV, A, 1: Represent data about classmates or their surroundings by using objects or pictures.</p> |

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| K Life Science | Trees | Trees through the Seasons | #20: Environmental Exchange Box #43: Have Seeds, Will Travel #62: To Be A Tree #63: Tree Factory (variation) #65: Bursting Buds #78: Signs of Fall: Part A #79: Tree Lifecycle (variation) #95: Did You Notice? | V, B, 1: Sort two- and three-dimensional shapes according to their geometrical attributes. Science: III, B, 1: Describe daily and seasonal changes in weather. IV, B, 1: Compare and contrast living and non living things. IV, G, 1: Observe and describe the environment using the five senses Language Arts: I, B, 1: Use words to describe and name people, places and things. 2: Use words to describe location, size, color, shape and direction. 3: Use words to describe actions. 5: Learn new words through explicit instruction. I, C, 1: Demonstrate literal comprehension by asking and answering questions about narrative and informational text. 3: Write or draw a response that demonstrates comprehension. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two-step directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults. 8: Ask and respond to questions. III, B, 1: Follow print (words and text) from left to right and top to bottom. |
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| Grade/ Strand | FOSS Module | Investigation | PLT Activity | MN Science Standards Benchmarks |
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| 1 st /2 nd Life Science | New Plants | Brassica Seeds Grass and Grain Seeds Stems Bulbs and Roots | #8: The Forest of S.T.Shrew #16: Pass The Plants, Please: Part A #27: Every Tree For Itself #41: How Plants Grow: Variation #42: Sunlight and Shades of Green # 43: Have seeds will travel # 47: Are vacant Lots Vacant? Variation (focus on plants) # 48: Field, Forest and Stream: variation (focus on plants) #63: Tree Factory (variation) #70: Soil Stories Part A #76: Tree Cookies (variation) #79: Tree Lifecycle: (Variation) | Science: 1st grade: I, B, 1: Observe, describe, measure, compare and contrast common objects, using simple tools including but not limited to ruler, thermometer and balance. III, B, 1: Observe record and describe characteristics in daily weather and seasonal cycles. IV, B, 1: Observe and describe how plants and animals grow and change. IV, F, 1: Know that animals need air, water and food and that plants require air, water, nutrients and light. 2nd grade: I, A, 1: Recognize that repeating a scientific investigation will lead to very similar results. 2: Recognize that scientific investigations generally work the same way in different places. 4: Recognize that everyone can do science and invent things and ideas. I, B, 1: Use appropriate tools to gather and organize data. III, A, 1: Observe and describe rocks, soil, water and air. IV, C, 1: Observe and describe some features of plants and animals that allow them to live in specific environments. IV, F, 1: Observe and describe predator and prey relationships. Social Studies K-3: VI, B, 1: Students will recognize and explain that natural resources, human resources and human-made resources are used in the production of goods and services. Language Arts: 1st Grade: I, B, 1: Learn new words through explicit instruction and independent reading. 2: Use descriptive words when speaking of people places, things, actions and events. 4: Use context to predict and infer word meanings. I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text. 4: Make predictions of outcomes and verify from texts. 5: Identify or infer topic. 6: Make simple inferences and draw and support conclusions. 7: Use story illustrations to enhance comprehension. 8: Write or draw a response that shows comprehension of a story that has been read. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters setting and sequences of story events. 3: Respond to text and use details from stories to support interpretation and make personal connections. 4: Retell familiar stories using a beginning, middle and end. 5: Read and listen to selections for personal enjoyment. 6: Understand the role of illustrations in conveying meaning in picture books. II, A, 2: Use informal writing to record information or observations. II, C, 6: Spell 3-4 letter words correctly. 7: Spell grade appropriate words correctly in final draft. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 3: Attend to and understand the meaning of messages. 5: Recite and respond to stories, poems, rhymes and songs with expression. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independent reading. 2: Use a growing range of descriptive words when speaking of people, places, things, actions and events. 3: Use context and word structure to help determine a word's meaning. I, C, 1: Read aloud grade-appropriate texts (that have not been previewed) with accuracy and comprehension. 2: Recall and use prior learning and preview text to prepare for reading. 3: Analyze text by using pictures, diagrams, titles and headings. 5: Restate the sequence of events or ideas in a text, and summarize. 6: Identify the topic, facts and supporting details in non-fiction texts. 7: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and |

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| 1 st /2 nd Life Science | New Plants | <p>Brassica Seeds</p> <p>Grass and Grain Seeds</p> <p>Stems</p> <p>Bulbs and Roots</p> | | <p>informational texts.</p> <p>8: Make predictions about text and verify outcomes.</p> <p>9: Summarize text.</p> <p>10: Follow two-step written directions.</p> <p>I, D, 1: Read from and listen to texts representing a variety of genres (such as poetry, folk tales, drama, fantasy, realistic fiction, informational and biography) from America, as well as from other countries.</p> <p>2: Identify and describe main characters, settings and plot.</p> <p>3: Use details from the story to support interpretation.</p> <p>7: Read selections for personal enjoyment.</p> <p>II, A, 1: Write in a variety of modes to express meaning including: a. narrative, b. informal, and c. functional.</p> <p>II, E, 1: Use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Comprehend text or information presented orally.</p> <p>5: report on a topic by sharing facts, opinions ideas, prior knowledge or personal experiences in a logical sequence.</p> <p>6: Recite and respond to stories, poems, rhymes and songs with expression.</p> <p>Mathematics:</p> <p>1st Grade:</p> <p>III, A, 1: Sort, classify, and compare objects in a set in more than one way.</p> <p>2: Recognize, describe and extend repeating patterns involving up to four elements.</p> <p>IV, A, 1: Gather and record data about classmates and their surroundings in a simple graph.</p> <p>2: Identify patterns in simple graphs.</p> <p>2nd Grade:</p> <p>IV, A, 1: Collect and record categorical data.</p> <p>3: Identify patterns in graphs or data sets.</p> |
| 1 st /2 nd Life Science | Insects | <p>Meal Worms</p> <p>Waxworms</p> <p>Milkweed Bugs</p> <p>Silkworms</p> <p>Butterflies</p> <p>Other Insects</p> | <p>#3: Peppermint Beetle</p> <p>#8: The Forest of S.T. Shrew</p> <p>#22: Trees as Habitats</p> <p>#23: The Fallen Log (modified for grade level)</p> <p>#24: Nature's Recyclers</p> <p>#25: Birds and Worms</p> <p>#46: Schoolyard Safari</p> <p>#47: Are Vacant Lots Vacant?(variation) (focus on insects)</p> <p>#48: Field Forest and Stream(variation) (focus on insects)</p> | <p>Science:</p> <p>1st Grade:</p> <p>IV, F, 1: Know that animals need air, water and food and that plants require air, water, nutrients and light.</p> <p>2nd Grade:</p> <p>II, A, 1: Sort and classify objects in terms of color, size, shape, weight, texture, flexibility and attraction to magnets.</p> <p>IV, B, 1: Describe life cycles of plants and animals.</p> <p>IV, C, 1: Observe and describe some features of plants and animals that allow them to live in specific environments.</p> <p>Language Arts:</p> <p>1st Grade:</p> <p>I, B, 1: Learn new words through explicit instruction and independent reading.</p> <p>2: Use descriptive words when speaking of people places, things, actions and events.</p> <p>4: Use context to predict and infer word meanings.</p> <p>I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text.</p> <p>4: Make predictions of outcomes and verify from texts.</p> <p>5: Identify or infer topic.</p> <p>6: Make simple inferences and draw and support conclusions.</p> <p>7: Use story illustrations to enhance comprehension.</p> <p>8: Write or draw a response that shows comprehension of a story that has been read.</p> <p>I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries.</p> <p>2: Identify and describe main characters setting and sequences of story events.</p> <p>3: Respond to text and use details from stories to support interpretation and make personal connections.</p> <p>4: Retell familiar stories using a beginning, middle and end.</p> <p>5: Read and listen to selections for personal enjoyment.</p> <p>6: Understand the role of illustrations in conveying meaning in picture books.</p> <p>II, A, 1: Write in a variety of modes to express meaning, including: a. narrative, b. informative, c. poetic.</p> <p>2: Use informal writing to record information or observations.</p> <p>II, B, 1: Write sentences using a process and strategies to plan, compose, revise and edit.</p> <p>II, C, 1: Use a period after sentences, numerals and initials.</p> <p>2: Capitalize the first letter of proper names, the pronoun <i>I</i>, and the first words of sentences.</p> |

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| 1 st /2 nd Life Science | Insects | Meal Worms Waxworms Milkweed Bugs Silkworms Butterflies Other Insects | | <p>3: Use question marks and exclamation marks. 4: Compose simple sentences. 5: Use correct spelling for grade-appropriate high frequency sight words. 6: Spell 3-4 letter words correctly. II, D, 1: Use grade level appropriate reference material to obtain information. II, E, 1: Improve the formation of uppercase and lowercase letters of the alphabet and numbers. 2: Space words and sentences appropriately. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults in complete sentences. 5: Recite and respond to stories, poems, rhymes and songs with expression. 7: Ask and respond to questions. III, B, 1: Follow print from left to right and top to bottom. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independently. 2: Use growing range of descriptive words when speaking of people, places, things, actions and events. 3: Use context and word structure to help determine a word's meaning. I, C, 1: Read aloud grad-appropriate texts (that have not been previewed) with accuracy and comprehension. 2: Recall and use prior learning and preview text to prepare for reading. 3: Analyze text by using pictures, diagrams, titles and headings. 5: Restate the sequence of events or ideas in a text, and summarize. 6: Identify the topic, facts and supporting details in non-fiction texts. 7: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational texts. 8: Make predictions about text and verify outcomes. 9: Summarize text. 10: Follow two-step written directions. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters, settings and plot. Use details from the story to support interpretation. 7: Read selections for personal enjoyment. II, A, 1: Write in a variety of modes to express meaning, including: narrative informal and functional. 2: Use informal writing skills, such as note taking, listing, and mapping to record information or observations. II, B, 1: Write sentences employing the composing processes of pre-writing, writing, revising, editing and final copy. II, E, 1: Use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Comprehend text or information presented orally. 3: Follow two or three step oral directions. 5: Report on a topic by sharing facts, opinions, ideas, prior knowledge or personal experiences in a logical sequence. 6: Recite and respond to stories, poems, rhymes and songs with expression. Mathematics: 1st Grade: III, A, 1: Sort, classify, and compare objects in a set in more than one way. 2: Recognize, describe and extend repeating patterns involving up to four elements. IV, A, 1: Gather and record data about classmates and their surroundings in a simple graph. 2: Identify patterns in simple graphs. 2nd Grade: IV, A, 1: Collect and record categorical data. 2: Create pictographs and real-object graphs to represent data. 3: Identify patterns in graphs or data sets</p> |
| 1 st /2 nd Earth Science | Air & Weather | Exploring Air | #18 Tale of the Sun #36 Pollution Search | Social Studies: K-3: IV, B, 1: Identify, describe, and extract information from various types of historical sources, both primary and secondary. |

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| <p>1st/2nd Earth Science</p> | <p>Air & Weather</p> | <p>Exploring Air</p> | | <p>Language Arts: 1st Grade: 1, B, 1: Learn new words through explicit instruction and independent reading. 2: Use descriptive words when speaking of people places, things, actions and events. 3: Identify and generate antonyms and synonyms, and use them to understand and express word meaning. 4: Use context to predict and infer word meanings. I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text. 2: Recall and use prior learning and preview text to prepare for reading. 4: Make predictions of outcomes and verify from texts. 5: Identify or infer topic. 6: Make simple inferences and draw and support conclusions. 7: Use story illustrations to enhance comprehension. 8: Write or draw a response that shows comprehension of a story that has been read. 9: Relate texts to prior knowledge and experiences. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters setting and sequences of story events. 3: Respond to text and use details from stories to support interpretation and make personal connections. 4: Retell familiar stories using a beginning, middle and end. 5: Read and listen to selections for personal enjoyment. 6: Understand the role of illustrations in conveying meaning in picture books. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults in complete sentences. 6: Use voice level appropriate for language situation. 7: Ask and respond to questions. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independent reading. 2: Use a growing range of descriptive words when speaking of people, places, things, actions and events. 3: Use context and word structure to help determine a word's meaning. II, C, 5: Restate the sequence of events or ideas in a text, and summarize. 6: Identify the topic, facts and supporting details in nonfiction texts. II, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Comprehend text or information presented orally. 3: Follow two or three-step oral directions. 6: Recite and respond to stories, poems, rhymes and songs with expression. 7: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational texts. 8: Make predictions about text and verify outcomes. 9: Summarize text. 10: Follow two-step written directions. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters, settings and plot. 3: Use details from the story to support interpretation. 4: Compare and contrast works by different authors in the same genre or regarding the same theme. 5: Compare and contrast two works by the same author. 6: Critically read and evaluate texts to determine the author's purpose. 7: Read selections for personal enjoyment. II, B, 2: Use verbalization to prepare for writing.</p> |
| <p>1st/2nd Earth Science</p> | <p>Air & Weather</p> | <p>Observing Weather</p> | <p># 49 Tropical Treehouse variation</p> | <p>Science: 1st grade: I, B, 1: Observe, describe, measure, compare and contrast common objects, using simple tools including but not limited to ruler, thermometer and balance.</p> |

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| 1sr/2 nd Earth Science | Air & Weather | Observing Weather | | <p>III, B, 1: Observe record and describe characteristics in daily weather and seasonal cycles.</p> <p>2nd grade:</p> <p>I, A, 1: Recognize that repeating a scientific investigation will lead to very similar results.</p> <p>2: Recognize that scientific investigations generally work the same way in different places.</p> <p>4: Recognize that everyone can do science and invent things and ideas.</p> |
| 1sr/2 nd Earth Science | Air & Weather | Wind Explorations | <p>#39 Energy Sleuths (Part A)</p> <p># 48 Field, Forest, and Stream (variation)</p> | <p>Science:</p> <p>1st grade:</p> <p>I, B, 1: Observe, describe, measure, compare and contrast common objects, using simple tools including but not limited to ruler, thermometer and balance.</p> <p>III, B, 1: Observe record and describe characteristics in daily weather and seasonal cycles.</p> <p>2nd grade:</p> <p>I, A, 1: Recognize that repeating a scientific investigation will lead to very similar results.</p> <p>2: Recognize that scientific investigations generally work the same way in different places.</p> <p>4: Recognize that everyone can do science and invent things and ideas.</p> |
| 1sr/2 nd Earth Science | Air & Weather | Looking for change | <p>#65 Bursting Buds</p> <p>#78 Signs of Fall</p> <p>#79 Tree Lifecycle (variation)</p> | <p>Science:</p> <p>1st grade:</p> <p>III, B, 1: Observe record and describe characteristics in daily weather and seasonal cycles.</p> <p>IV, B, 1: Observe and describe how plants and animals grow and change.</p> <p>IV, F, 1: Know that animals need air, water and food and that plants require air, water, nutrients and light.</p> <p>2nd grade:</p> <p>I, B, 1: Use appropriate tools to gather and organize data.</p> <p>IV, B, 1: Describe life cycles of plants and animals.</p> <p>Language Arts:</p> <p>1st Grade:</p> <p>I, B, 1: Learn new words through explicit instruction and independent reading.</p> <p>2: Use descriptive words when speaking of people places, things, actions and events.</p> <p>4: Use context to predict and infer word meanings.</p> <p>7: Use story illustrations to enhance comprehension.</p> <p>8: Write or draw a response that shows comprehension of a story that has been read.</p> <p>II, A, 2: Use informal writing to record information or observations.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions.</p> <p>2: Follow two- or three-step oral directions.</p> <p>4: Communicate needs, feelings and ideas to peers and adults in complete sentences.</p> <p>2nd Grade:</p> <p>I, B, 1: Learn and use new words through explicit instruction and independent reading.</p> <p>2: Use a growing range of descriptive words when speaking of people, places, things, actions and events.</p> <p>II, B, 2: Use verbalization to prepare for writing.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Comprehend text or information presented orally.</p> |
| 1 st /2 nd Earth Science | Pebbles, Sand and Silt | First Rocks River Rocks Using Rocks | <p>#15: A Few of My Favorite Things</p> <p>#39 Energy Sleuths Part A</p> <p>#82 Resource-Go- Round (modified for grade level)</p> <p>#87: Earth Manners</p> <p>#89: Trees for many reasons</p> | <p>Social Studies K-3:</p> <p>VI, A, 1: 3: Students will understand and explain that the concept of scarcity means that one cannot have all the goods and services that one wants.</p> <p>4: Students will give examples of tradeoffs.</p> <p>Language Arts:</p> <p>1st Grade:</p> <p>I, A, 1: Identify letters, words and sentences.</p> <p>2: Match spoken words with print.</p> <p>I, B, 2: Use descriptive words when speaking of people places, things, actions and events.</p> <p>3: Identify and generate antonyms and synonyms, and use them to understand and express word meaning.</p> <p>4: Use context to predict and infer word meanings.</p> <p>I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text.</p> <p>4: Make predictions of outcomes and verify from texts.</p> <p>5: Identify or infer topic.</p> |

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| <p>1st/2nd Earth Science</p> | <p>Pebbles, Sand and Silt</p> | <p>First Rocks River Rocks Using Rocks</p> | | <p>6: Make simple inferences and draw and support conclusions. 7: Use story illustrations to enhance comprehension. 8: Write or draw a response that shows comprehension of a story that has been read. 9: Relate texts to prior knowledge and experiences. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters setting and sequences of story events. 3: Respond to text and use details from stories to support interpretation and make personal connections. 4: Retell familiar stories using a beginning, middle and end. 5: Read and listen to selections for personal enjoyment. 6: Understand the role of illustrations in conveying meaning in picture books. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions. 7: Ask and respond to questions. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independent reading. 2: Use a growing range of descriptive words when speaking of people, places, things, actions and events. 3: Use context and word structure to help determine a word's meaning. I, C, 3: Analyze text by using pictures, diagrams, titles and headings. 4: Monitor comprehension, reread and use strategies to self-correct when necessary. 5: Restate the sequence of events or ideas in a text, and summarize. 6: Identify the topic, facts and supporting details in non-fiction texts. 7: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational texts. 9: Summarize text. I, D, 1: Read from and listen to texts representing a variety of genres from America, as well as from other countries. 2: Identify and describe main characters, settings and plot. 3: Use details from the story to support interpretation. 6: Critically read and evaluate texts to determine the author's purpose. II, A, 1: Write in a variety of modes to express meaning, including: narrative, informal and functional. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Comprehend text or information presented orally. 3: Follow two or three step oral directions. 6: Recite and respond to stories, poems, rhymes and songs with expression. 8: Ask and respond to questions.</p> |
| <p>1st/2nd Earth Science</p> | <p>Pebbles, Sand and Silt</p> | <p>Soil Explorations</p> | <p>#23: The Fallen Log (modified for grade level) #24 Nature's Recyclers #70 Soil Stories</p> | <p>Science: 2nd grade: II, A, 1: Sort and classify objects in the terms of color, size, shape, weight, texture, flexibility and attraction to magnets. III, A, 1: Observe and describe rocks, soils, water and air. IV, B, 1: Describe life cycles of plants and animals. IV, C, 1: Observe and describe some features of plants and animals that allow them to live in specific environments. Language Arts: 1st Grade: I, B, 1: Learn new words through explicit instruction and independent reading. 2: Use descriptive words when speaking of people places, things, actions and events. II, A, 1: Write in a variety of modes to express meaning, including: a. narrative, b. informative, c. poetic. 2: Use informal writing to record information or observations. II, B, 1: Write sentences using a process and strategies to plan, compose, revise and edit. II, C, 1: Use a period after sentences, numerals and initials. 2: Capitalize the first letter of proper names, the pronoun <i>I</i>, and the first words of sentences. 3: Use question marks and exclamation marks. 4: Compose simple sentences. 5: Use correct spelling for grade-appropriate high frequency sight words. 6: Spell 3-4 letter words correctly. II, D, 1: Use grade level appropriate reference material to obtain information. II, E, 1: Improve the formation of uppercase and lowercase letters of the alphabet and numbers.</p> |

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| <p>1st/2nd Earth Science</p> | <p>Pebbles, Sand and Silt</p> | <p>Soil Explorations</p> | | <p>2: Space words and sentences appropriately. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions 3: Attend to and understand the meaning of messages. 3: Attend to and understand the meaning of messages. 7. Ask and respond to questions. III, B, 1: Follow print from left to right. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independent reading. 2: Use a growing range of descriptive words when speaking of people, places, things, actions and events. I, C, 3: Analyze text by using pictures, diagrams, titles and headings. II, A, 1: Write in a variety of modes to express meaning, including: narrative, informal and functional. 2: Use informal writing skills such as note taking, listing and mapping, to record information or observations. II, B, 2: Use verbalization to prepare for writing. II, E, 1: Use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Comprehend text or information presented orally. 3: Follow two or three step oral directions.</p> |
| <p>1st/2nd Physical Science</p> | <p>Balance and Motion</p> | <p>General connections to the curriculum</p> | <p>#1: The Shape of Things #2: Get In Touch With Trees #6: Picture This! #22: Trees as Habitats #24: Nature's Recyclers #41: How Plants Grow</p> | <p>Science: 1st Grade: II, A, 1: Describe objects in terms of color, size, shape, weight, texture, flexibility and attraction to magnets. 2nd Grade: I, A, 1: Recognize that repeating a scientific investigation will lead to very similar results. 4: Recognize that everyone can do science and invent things and ideas. II, A, 1: Sort and classify objects in terms of color, size, shape, weight, texture, flexibility and attraction to magnets. Language Arts: 1st Grade: I, A, 1: Identify letters, words and sentences. 2: Match spoken words with print. I, B, 1: Learn new words through explicit instruction and independent reading. 2: Use descriptive words when speaking of people places, things, actions and events. I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text. 3: Monitor comprehension and reread as needed at points of difficulty, using strategies to self-correct when needed. II, A, 1: Write in a variety of modes to express meaning, including: a. narrative, b. informative, c. poetic. 2: Use informal writing to record information or observations. II, B, 1: Write sentences using a process and strategies to plan, compose, revise and edit. II, C, 1: Use a period after sentences, numerals and initials. 2: Capitalize the first letter of proper names, the pronoun <i>I</i>, and the first words of sentences. 3: Use question marks and exclamation marks. 4: Compose simple sentences. 5: Use correct spelling for grade-appropriate high frequency sight words. 6: Spell 3-4 letter words correctly. II, D, 1: Use grade level appropriate reference material to obtain information. II, E, 1: Improve the formation of uppercase and lowercase letters of the alphabet and numbers. 2: Space words and sentences appropriately. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions 3: Attend to and understand the meaning of messages. 3: Attend to and understand the meaning of messages. 4: Communicate needs, feelings and ideas to peers and adults in complete sentences. 7. Ask and respond to questions. III, B, 1: Follow print from left to right. 2nd Grade: I, B, 1: Learn and use new words through explicit instruction and independent reading. 2: Use a growing range of descriptive words when speaking of people, places, things, actions and events.</p> |

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| <p>1st/2nd Physical Science</p> | <p>Balance and Motion</p> | <p>General connections to the curriculum</p> | | <p>I, C, 3: Analyze text by using pictures, diagrams, titles and headings. II, A, 1: Write in a variety of modes to express meaning, including: narrative, informal and functional. 2: Use informal writing skills such as note taking, listing and mapping, to record information or observations. II, B, 2: Use verbalization to prepare for writing. II, E, 1: Use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Comprehend text or information presented orally. 3: Follow two or three step oral directions. Mathematics: 1st Grade: III, A, 1: Sort, classify, and compare objects in a set in more than one way. IV, A, 2: Identify patterns in simple graphs. V, B, 1: Sort and describe two and three dimensional shapes according to their geometrical attributes. 2nd Grade: IV, A, 2: Create pictographs and real object graphs to represent data. 3: Identify patterns in graphs or data sets. V, B, 2: Sort, classify, compare and describe two and three dimensional objects according to their geometrical attributes.</p> |
| <p>1st/2nd Physical Science</p> | <p>Solids and Liquids</p> | <p>General connections to curriculum</p> | <p>#1: The Shape of Things #2: Get In Touch With Trees #6: Picture This! #22: Trees as Habitats #24: Nature's Recyclers #41: How Plants Grow #76: Tree Cookies #77: Trees In Trouble #78: Signs of Fall</p> | <p>Science: 1st Grade: I, B, 1: Observe, describe, measure, compare and contrast common objects using simple tools including but not limited to ruler, thermometer and balance. II, A, 1: Describe objects in terms of color, size, shape, weight, texture, flexibility, and attraction to magnets. 2nd Grade: I, A, 4: Recognize that everyone can do science and invent things and ideas. I, B, 1: Use appropriate tools to gather and organize data. 2: Recognize and describe patterns in data. II, A, 1: Sort and classify objects in terms of color, size, shape, weight, texture, flexibility and attraction to magnets. Language Arts: 1st Grade: I, A, 1: Identify letters, words and sentences. 2: Match spoken words with print. I, B, 1: The student will learn new words through explicit instruction and independent reading. 2: The student will use descriptive words when speaking of people places, things, actions and events. I, C, 1: Demonstrate literal and inferential comprehension by asking and answering questions about narrative and informational text. 3: Monitor comprehension and reread as needed at points of difficulty, using strategies to self-correct when needed. 5: Identify or infer topic. 6: Make simple inferences and draw and support conclusions. 7: Use story illustrations to enhance comprehension. 8: Write or draw a response that shows comprehension of a story that has been read. II, A, 1: Write in a variety of modes to express meaning, including: a. narrative, b. informative, c. poetic. 2: use informal writing to record information or observations. II, B, 1: Write sentences using a process and strategies to plan, compose, revise and edit. II, C, 1: Use a period after sentences, numerals and initials. 2: Capitalize the first letter of proper names, the pronoun <i>I</i>, and the first words of sentences. 3: Use question marks and exclamation marks. 4: Compose simple sentences. 5: Use correct spelling for grade-appropriate high frequency sight words. 6: Spell 3-4 letter words correctly. II, D, 1: Use grade level appropriate reference material to obtain information. II, E, 1: Improve the formation of uppercase and lowercase letters of the alphabet and numbers. 2: Space words and sentences appropriately. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions. 2: Follow two- or three-step oral directions 3: Attend to and understand the meaning of messages.</p> |

1st/2nd
Physical
Science

Solids and
Liquids

General
connections
to curriculum

3: Attend to and understand the meaning of messages.
4: Communicate needs, feelings and ideas to peers and adults in complete sentences.
7. As and Respond to questions.
III, B, 1: Follow print from left to right.
2nd Grade:
I, B, 1: Learn and use new words through explicit instruction and independent reading.
2: Use a growing range of descriptive words when speaking of people, places, things, actions and events.
I, C, 3: Analyze text by using pictures, diagrams, titles and headings.
7: Demonstrate literal and inferential comprehension by asking and answering question about narrative and informational texts.
8: Make predictions about text and verify outcomes.
10: Follow two step directions.
II, A, 1: Write in a variety of modes to express meaning, including: narrative, informal and functional.
2: Use informal writing skills such as note taking, listing and mapping, to record information or observations.
II, B, 2: Use verbalization to prepare for writing.
II, D, 1: Use grade-level appropriate reference material to obtain information.
II, E, 1: Use legible handwriting with improved formation of the uppercase and lowercase letters of the alphabet and numbers.
III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.
2: Comprehend text or information presented orally.
3: Follow two or three step oral directions.
Mathematics:
1st Grade:
III, A, 1: Sort, classify, and compare objects in a set in more than one way.
IV, A, 2: Identify patterns in simple graphs.
V, B, 1: Sort and describe two and three dimensional shapes according to their geometrical attributes.
2nd Grade:
IV, A, 2: Create pictographs and real object graphs to represent data.
3: Identify patterns in graphs or data sets.
V, B, 2: Sort, classify, compare and describe two and three dimensional objects according to their geometrical attributes.

| Grade/ Strand | FOSS Module | Investigation | PLT Activity | MN Science Standards Benchmarks |
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| 3 rd /4 th Life Science | Human Body | Bones | <p>Structure and form: #61 The Closer You Look</p> <p>Extension: Health and Nutrition: #16: Pass the Plants, Please Part A</p> | <p>Science: 3rd Grade: IV, B, 1: 1Ddescribe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction. 4th Grade: IV, B, 1: Classify plants and animals according to their physical characteristics. 2: Learn that the characteristics used for grouping depend on the purpose of the grouping. Social Studies K-3: V1, B, 1: 2: Recognize and explain that natural resources, human resources, and human-made resources are used in the production of goods and services. Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 2: Recall and use prior learning and preview text, using title, headings and illustrations, to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 4: Retell, restate or summarize information orally, in writing, and through graphic organizers. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Follow multi-step oral directions. 4th Grade: I, C, 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding. 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 9: Follow multi-step written instructions. 10: Compare and contrast information on the same topic from two sources. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. Mathematics: 3rd Grade: IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters. 2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key. 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Life Science | Human Body | Coordination | <p>Senses & Stimuli: #1: The Shape of Things</p> <p>#2: Get in Touch With Trees</p> <p>#3 Peppermint Beetle</p> <p>#4 Sounds Around</p> | <p>Science: 3rd Grade: II, C, 1: Investigate how sounds are made when objects vibrate. IV, B, 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction. IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. Social Studies K-3: V, A, 1: Use cardinal and intermediate directions to locate places. V, B, 1: 1: Locate places by using simple maps, and understand that maps are drawings of locations and places as viewed from above. 3: Create and interpret simple maps using the map elements of title, direction, symbols, and a map key or legend.</p> |

3rd/4th
Life Science

Human Body

Coordination

VII, A, 1: Demonstrate knowledge of civic values that facilitate thoughtful and effective participation in civic life.
4-8:
V, D, 1: 2: Provide examples at differing scales of how regions are important to people as symbols for unifying society.

Language Arts:
3rd Grade:
I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.
I, C, 4: Retell, restate or summarize information orally, in writing, and through graphic organizers.
I, D, 1: Read from and listen to American literature, as well as literature from other countries.
2: Identify, describe and respond to literary elements of characterization, plot, setting and theme.
3: Identify and describe patterns of sounds such as rhyme and rhythm in poetry.
6: Identify and determine the meanings of similes and metaphors.
7: Critically read and examine text to determine author's purpose.
8: Respond to literature using ideas and details from the text to support reactions and make literary connections.
9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment.
II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, friendly letter and poetic.
II, B, 1: Write a paragraph that includes: an indented or block style of paragraph, a topic sentence, 3-5 supporting sentences and a concluding sentence.
3: Use verbalization to prepare for writing.
III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.
2: Demonstrate active listening and comprehension.
3: Follow multi-step oral directions.
4: Give oral presentations to different audiences for different purposes.
5: Organize and express ideas sequentially or according to major points.

4th Grade:
I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.
I, C, 1: Read aloud grade-appropriate text with accuracy and comprehension.
3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding.
4: Summarize and paraphrase what is read.
5: Infer and identify main idea and determine relevant details in non-fiction text.
6: Distinguish fact from opinion, determine cause and effect, and draw conclusions.
7: Demonstrate relationships between ideas or events in the texts using graphic organizers.
8: Monitor comprehensions, notice when reading breaks down and use strategies to self-correct.
9: Follow multi-step written instructions.
I, D, 1: Read and respond to a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries.
2: Identify, respond to, and compare and contrast the literary elements of characterization, plot, setting and theme.
7: Identify and determine the meanings of similes and metaphors.
8: Critically read and evaluate text to determine author's purpose and point of view.
9: Respond to literature using ideas and details from the text to support reactions and make literary connections.
10: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment.
II, A, 1: Write in a variety of styles to express meaning including: descriptive, narrative, informative, friendly letter, poetic, persuasive, and thank you note.
II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.

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| 3 rd /4 th Life Science | Human Body | Coordination | | <p>5: Use verbalization to prepare for writing. 6: Consider audience in composing texts. II, D, 1: Locate information in various reference materials including dictionaries, online dictionaries, glossaries, encyclopedias and the Internet. II, E, 1: Write legibly in both print and cursive. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Give oral presentations to different audiences for different purposes. 4: Organize and summarize ideas, using evidence to support opinions or main ideas.</p> <p>Mathematics: 3rd Grade: IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters. 2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key. V, B, 1: Identify, describe and classify two-dimensional shapes according to number and length of sides and kinds of angles. 2: Identify common two and three-dimensional shapes that are components of more complex shapes. 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Life Science | Structures of Life | Origin of Seeds | <p>#16: Pass the Plants, Please</p> <p># 43: Have Seeds Will Travel</p> | <p>Science: 3rd Grade: IV, B, 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 4th Grade: I, C, 2: Recall and use prior learning and preview text to prepare for reading. 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 9: Follow multi-step directions. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. Mathematics: 3rd Grade: IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters. 2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key. 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Life Science | Structures of Life | Growing Further | <p>#31: Plant A Tree</p> <p>#41: How Plants Grow</p> <p>#42: Sunlight and Shades of Green</p> <p># 66: Germinating Giants</p> <p>#70: Soil Stories: Part A</p> <p>#79 Tree Lifecycle</p> | <p>Science: 3rd Grade: I, B, 1: 1: Ask questions about the natural world that can be investigated scientifically 2: The student will participate in a scientific investigation using appropriate tools. IV, B, 1: 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction. IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding</p> |

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| <p>3rd/4th Life Science</p> | <p>Structures of Life</p> | <p>Growing Further</p> | <p>about what is read.</p> <p>4: Retell, restate or summarize information orally, in writing, and through graphic organizers.</p> <p>I, D, 2: Identify, describe and respond to literary elements of characterization, plot, setting and theme.</p> <p>II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, friendly letter and poetic.</p> <p>II, B, 1: Write a paragraph that includes” and indented or block style of paragraph, a topic sentence, 3-5 supporting sentences and a concluding sentence.</p> <p>2: Use composing processes, including: prewriting-planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus, drafting-organizing, supporting and putting ideas into sentences and paragraphs, revising- improving the quality of content, organization, sentence structure and word choice, editing-correcting errors in spelling and grammar, publishing-producing a document and sharing the writing with the audience.</p> <p>3: Uses verbalization to prepare for writing.</p> <p>II, D, 1: Use grade level appropriate reference materials to obtain information from dictionaries, glossaries, encyclopedias and the Internet.</p> <p>II, E, 1: Write legibly, allowing margins and correct spacing between letters in a word and words in a sentence.</p> <p>III, A 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Demonstrate active listening and comprehension.</p> <p>3: Follow multi-step oral directions.</p> <p>4: Give oral presentations to different audiences for different purposes.</p> <p>5: Organize and express ideas sequentially or according to major points.</p> <p>4th Grade:</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.</p> <p>I, C, 2: Recall and use prior learning and preview text to prepare for reading.</p> <p>4: Summarize and paraphrase what is read.</p> <p>7: Demonstrate relationships between ideas or events in the texts using graphic organizers.</p> <p>9: Follow multi-step written instructions.</p> <p>10: Compare and contrast information on the same topic from two sources.</p> <p>I, D, 8: Critically read and evaluate text to determine author’s purpose and point of view.</p> <p>9: Respond to literature using ideas and details from the text to support reactions and make literary connections.</p> <p>II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note.</p> <p>II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>5: Use verbalization to prepare for writing.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>II, D, 1: Locate information in various reference materials, including dictionaries, online dictionaries, glossaries, encyclopedias and the Internet.</p> <p>II, E, 1: Write legibly in both print and cursive.</p> <p>2: Apply basic keyboarding skills.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Demonstrate active listening and comprehension.</p> <p>3: Give oral presentations to different audiences for different purposes.</p> <p>4: Organize and summarize ideas, using evidence to support opinions or main ideas.</p> <p>5: Perform expressive oral readings of prose, poetry or drama.</p> <p>III, C, 1: Read print, view pictures and video images and listen to audio files and identify distinctions in how information is presented in print and non-print materials.</p> <p>3: Use print, pictures, audio and video to express ideas and knowledge gleaned from these sources.</p> <p>Mathematics:</p> <p>4th Grade:</p> <p>II, A, 3: Use fractions and decimals to solve problems representing parts of a whole, parts of a set and division of whole numbers by whole numbers in real world and mathematical problems.</p> <p>II, B, 5: Use multiplication and division of whole numbers to solve simple real world and mathematical problems.</p> <p>IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> <p>V, C, 1: Find the area and perimeter of a rectangle by measuring, using a grid, or using a formula, and label the answer</p> |
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| | | Growing Further | | with appropriate units. 2: Understand that rectangles with the same area can have different perimeters and that rectangles with the same perimeter can have different areas. |
| 3 rd /4 th Life Science | Structures of Life | Meet the crayfish | # 6 Picture This! #7 Habitat Pen Pals # 22: Trees as Habitats: Part B and variation # 45: Web of Life # 48: Field Forest and Stream #88: Life on the Edge | <p>Science: 3rd Grade: IV, B, 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. 4th Grade: III, A, 1: Identify and investigate environmental issues and potential solutions. IV, B, 1: Classify plants and animals according to their physical characteristics. 2: Learn that the characteristics used for grouping depend on the purpose of the grouping.</p> <p>Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 4: Retell, restate or summarize information orally, in writing, and through graphic organizers. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, friendly letter and poetic. II, B, 1: Write a paragraph that includes” and indented or block style of paragraph, a topic sentence, 3-5 supporting sentences and a concluding sentence. II, C, 1: Compose complete sentences. 2: Recognize and correct spelling errors when writing. 3: Spell correctly one-syllable and two-syllable words that have blends, contractions and compounds. II, E, 1: Write legibly, allowing margins and correct spacing between letters in a word and words in a sentence. III, A 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Follow multi-step oral directions. 4: Give oral presentations to different audiences for different purposes. 5: Organize and express ideas sequentially or according to major points. 6: Perform expressive oral reading of prose, poetry or drama. 4th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 1: Read aloud grade appropriate text with accuracy and comprehension. 3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding. 4: Summarize and paraphrase what is read. 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 9: Follow multi-step written instructions. II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note. II, B, 1: Write topic sentences. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Use verbalization to prepare for writing. 6: Consider audience in composing texts. II, C, 1: Compose complete sentences when writing. II, D, 1: Locate information in various reference materials including dictionaries, online dictionaries, glossaries, encyclopedias, and the Internet. II, E, 1: Write legibly in both print and cursive. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Give oral presentations to different audiences for different purposes.</p> |

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| 3 rd /4 th Life Science | Structures of Life | Meet the crayfish | | <p>4: Organize and summarize ideas, using evidence to support opinions or main ideas. 5: Perform expressive oral readings of prose, poetry or drama.</p> <p>III, C, 1: Read print, view pictures and video images and listen to audio files and identify distinctions in how information is presented in print and non-print materials.</p> <p>2: Begin to make informed judgments about messages promoted in the media, such as those in film, television, radio and newspapers.</p> <p>Mathematics: 3rd Grade: IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters. 2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key. 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Life Science | Structures of Life | Meet the Land Snail OR Bess Beetles | <p>#8 The Forest of S.T. Shrew</p> <p># 9: Planet Diversity</p> <p>#11: Can It Be Real?</p> <p># 23: The Fallen Log</p> <p>#24: Nature's Recyclers</p> <p>#46: School Yard Safari</p> <p># 47: Are Vacant Lots Vacant?</p> | <p>Science: 3rd Grade: I, A, 1: Explore the use of science as a tool that can help investigate and answer questions about the environment. I, B, 1: Ask questions about the natural world that can be investigated scientifically 2: Participate in a scientific investigation using appropriate tools. IV, B, 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism.</p> <p>Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 3: Use context and word structure to determine the meaning of unfamiliar words. I, C, 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 4: Retell, restate or summarize information orally, in writing, and through graphic organizers. 7: Follow three-step written directions. I, D, 1: Read from and listen to American literature, as well as literature from other countries. 2: Identify, describe and respond to literary elements of characterization, plot, setting and theme. 7: Critically read, and examine text to determine author's purpose. 8: Respond to literature using ideas and details from the text to support reactions and make literary connections. 9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment. II, B, 3: Use verbalization to prepare for writing. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Follow multi-step oral directions. 5: Organize and express ideas sequentially or according to major points. 4th Grade: I, A, 1: Read unfamiliar complex and multi-syllabic words using advanced phonetic and structural analysis in grade appropriate text. 2: Read aloud narrative and expository text with fluency, accuracy, and appropriate pacing, intonation and expression. I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 3: Use dictionaries or glossaries to find meaning of new words. 4: Use context and word structure to determine word meanings. I, C, 1: Read aloud grade appropriate text with accuracy and comprehension. 3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding. 4: Summarize and paraphrase what is read. 5: Infer and identify main idea and determine relevant details in non-fiction text.</p> |

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| 3 rd /4 th Life Science | Structures of Life | Meet the Land Snail OR Bess Beetles | | <p>6: Distinguish fact from opinion, determine cause and effect, and draw conclusions. 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 8: Monitor comprehension, notice when reading breaks down and use strategies to self-correct. 9: Follow multi-step written instructions. 10: Compare and contrast information on the same topic from two sources. I, D, 2: Identify, respond to, and compare and contrast the literary elements of characterization, plot, setting and theme 8: Critically read and evaluate text to determine author’s purpose and point of view. 9: Respond to literature using ideas and details from the text to support reactions and make literary connections. 10: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment. II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note. II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Use verbalization to prepare for writing. 6: Consider audience in composing texts. II, D, 1: Locate information in various reference materials including dictionaries, online dictionaries, glossaries, encyclopedias and the Internet. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Give oral presentations to different audiences for different purposes. 4: Organize and summarize ideas, using evidence to support opinions or main ideas. 5: Perform expressive oral readings of prose, poetry or drama. III, C, 3: Use print, pictures, audio and video to express ideas and knowledge gleaned from these sources. Mathematics: 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Physical Science | Magnetism and Electricity | General Connections to curriculum | Electricity extensions: #39: Energy Sleuths Parts B and C | Social Studies 4-8: VI, A, 1: 1: Compare and contrast the roles of producers and consumers. 2: Explain that in market economies, individuals earn income by working for firms to produce goods and services, and firms incur costs by hiring individuals and earn revenue by selling goods and services. 3: Explain how a market economy answers the questions of what gets produced, how it is produced, and who receives it, and how it differs from other economic systems. 4: Explain that a market exists when consumers buy and producers sell goods and services. 5: Explain how the price of a good is determined by supply and demand (the interrelationship between production and consumption). VI, B, 1: 1: Understand the concept of scarcity and its role in decision-making. 2: Apply a decision-making process to make informed choices. 3: Analyze how people respond predictably to positive and negative economic incentives. |
| 3 rd /4 th Physical Science | Physics of Sound | General connections to curriculum | #4 Sounds Around Part B Part C (modified for grade level) # 36: Pollution Search (focus on noise pollution-fits in nicely with Part C above) | Science: 3rd Grade: II, C, 1: Investigate how sounds are made when objects vibrate. IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. Social Studies 4-8: V, D, 1: Analyze the way peoples’ perception of regions vary and are affected by individual perspective and culture. 2: Provide examples at differing scales of how regions are important to people as symbols for unifying society. VI, B, 1: Understand the concept of scarcity and its role in decision-making. 2: Apply a decision-making process to make informed choices. Language Arts: 3rd Grade: I, B, 3: Use context and word structure to determine the meaning of unfamiliar words. I, C, 4: Retell, restate or summarize information orally, in writing, and through graphic organizers. |

3rd/4th
Physical
Science

**Physics of
Sound**

General
connections
to curriculum

I, D, 1: Read from and listen to American literature, as well as literature from other countries.
2: Identify, describe and respond to literary elements of characterization, plot, setting and theme.
3: Identify and describe patterns of sounds such as rhyme and rhythm in poetry.
6: Identify and determine the meanings of similes and metaphors.
7: Critically read, and examine text to determine author's purpose.
8: Respond to literature using ideas and details from the text to support reactions and make literary connections.
9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment.
II, A, 2: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, friendly letter and poetic.
II, B, 1: Write a paragraph that includes" and indented or block style of paragraph, a topic sentence, 3-5 supporting sentences and a concluding sentence.
3: Use verbalization to prepare for writing.
III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.
2: Demonstrate active listening and comprehension.
4th Grade:
I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.
I, C, 1: Read Aloud grade appropriate text with accuracy and comprehension.
3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding.
4: Summarize and paraphrase what is read.
5: Infer and identify main idea and determine relevant details in non-fiction text.
6: Distinguish fact from opinion, determine cause and effect, and draw conclusions.
7: Demonstrate relationships between ideas or events in the texts using graphic organizers.
8: Monitor comprehension, notice when reading breaks down and use strategies to self-correct.
I, D, 1: Read and respond to a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries.
2: Identify, respond to, and compare and contrast the literary elements of characterization, plot, setting and theme.
7: Identify and determine the meanings of similes and metaphors.
8: Critically read and evaluate text to determine author's purpose and point of view.
9: Respond to literature using ideas and details from the text to support reactions and make literary connections.
10: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment.
II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note.
II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.
5: Use verbalization to prepare for writing.
6: Consider audience in composing texts.
II, E, 1: Write legibly in both print and cursive.
III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.
2: Demonstrate active listening and comprehension.
3: Give oral presentations to different audiences for different purposes.
5: Perform expressive oral readings of prose, poetry or drama.
Mathematics:
3rd Grade:
IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters.
2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key.

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| 3 rd /4 th Physical Science | Physics of Sound | General connections to curriculum | | <p>4th Grade: II, B, 1: Use addition and subtraction of multi-digit whole numbers to solve multi-step real world and mathematical problems. IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Earth Science | Water | Water Vapor | #44 Water Wonders | <p>Science: 4th Grade: III, B, 1: Describe the water cycle involving the processes of evaporation, condensation, precipitation and collection. 2: Identify where water exists on Earth. Language Arts: 4th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 4: Use context and word structure to determine word meanings. 5: Use knowledge of prefixes and suffixes to determine the meaning of unknown words. I, C, 3: Generate and answer literal, inferential, interpretive and evaluative questions about what is read to demonstrate understanding. 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 9: Follow multi-step written instructions. II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note. II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 5: Perform expressive oral readings of prose, poetry or drama.</p> |
| 3 rd /4 th Earth Science | Water | Water Works | <p>#14: Renewable or not</p> <p>#36: Pollution Search: Part A</p> <p>#38: Every Drop Counts</p> <p>#48: Field Forest and Stream (focus on water environments)</p> | <p>Science: 3rd Grade: IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. 4th Grade: III, A, 1: Identify and investigate environmental issues and potential solutions. III, B, 1: Describe the water cycle involving the processes of evaporation, condensation, precipitation and collection. 2: Identify where water exists on Earth. Social Studies 4-8: VI, B, 1: Understand the concept of scarcity and its role in decision-making. 2: Apply a decision-making process to make informed choices. 3: Analyze how people respond predictably to positive and negative economic incentives. Mathematics: 3rd Grade: IV, A, 1: Read and interpret data from circle graphs using halves, thirds and quarters. 2: Collect data using observations or surveys and represent the data with pictographs and line plots with appropriate title and key. 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |
| 3 rd /4 th Earth Science | Earth Materials | General connections to curriculum | <p>Geology: #14: Renewable or Not?</p> <p>#48 Field, Forest and Stream (focus on rocks and minerals)</p> <p>#52 A Look At Aluminum (modified for grade level)</p> | <p>Science: 3rd Grade: IV, C, 1: 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. 4th grade: III, A, 1: Identify and investigate environmental issues and potential solutions. Social Studies 4-8: V, C, 4: 2: Describe physical systems in the atmosphere and Earth's crust, and the regional patterns of climate and landforms associated with them. 3: Describe patterns of vegetation and landforms in the United States and around the world.</p> |

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| 3 rd /4 th Earth Science | Earth Materials | General connections to curriculum | #70 Soil Stories Minerals and Mining: #82: Resource Go Round | V, D, 1: 1: Identify factors that drew people to their local communities. 2: Analyze how the physical environment influences human activities. VII, A, 4: 3: Identify and research community problems and recommend solutions. Mathematics: 4th Grade: IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling. |
| 3 rd /4 th Earth Science | Ideas and Inventions | Rubblings | #2: Get In Touch With Trees # 21: Adopt a Tree # 51 Make Your Own Paper #61: The Closer You Look #64: Looking at Leaves #68 Name That Tree #70: Soil Stories | Science: 3rd Grade: IV, B, 1: Describe the structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction. 4th grade: IV, B, 1: Classify plants and animals according to their physical characteristics. 2: Learn that the characteristics used for grouping depend on the purpose of the grouping. Social Studies K-3: VI, B, 1: Distinguish between producers and consumers and between goods and services. 2: Recognize and explain that natural resources, human resources, and human-made resources are used in the production of goods and services. 4-8: V, C, 4: 2: Describe physical systems in the atmosphere and Earth's crust, and the regional patterns of climate and landforms associated with them. 3: Describe patterns of vegetation and landforms in the United States and around the world. V, D, 1: 1: Identify factors that drew people to their local communities. 2: Analyze how the physical environment influences human activities. Language Arts: 3rd Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 2: Recall and use prior learning and preview text, using title, headings and illustration, to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 4: Retell, restate or summarize information orally, in writing, and through graphic organizers. II, A, 1: Write a in a variety of modes to express meaning, including: descriptive, narrative, informative, friendly letter and poetic. II, B, 3: Uses verbalization to prepare for writing. II, D, 1: Locate information in various reference materials including dictionaries, online dictionaries, glossaries, encyclopedias and the Internet. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Follow multi-step oral directions. 4: Give oral presentations to different audiences for different purposes. 4th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. 9: Follow multi-step written instructions. 10: Compare and contrast information on the same topic from two sources. II, A, 1: Write in a variety of styles to express meaning, including: descriptive, narrative, informative, friendly letter, poetic, persuasive and thank you note. II, B, 3: Using composing processes, including: prewriting – planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting – organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing – producing a document and sharing the writing with the audience. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing |

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| <p>3rd/4th Earth Science</p> | <p>Ideas and Inventions</p> | <p>Rubbings</p> | | <p>information, and editing for logical progression. 5: Uses verbalization to prepare for writing. II, C, 1: Compose complete sentences when writing. II, D, 1: Locate information in various reference materials including dictionaries, online dictionaries, glossaries, encyclopedias and the Internet. II, E, 1: Write legibly in both print and cursive. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Give oral presentations to different audiences for different purposes. 4: Organize and summarize ideas, using evidence to support opinions or main idea.</p> |
| <p>3rd/4th Technology and reasoning</p> | <p>Measurements</p> | <p>General connections to curriculum</p> | <p>#41: How Plants Grow # 48: Field, Forest and Stream (Focus on measurement and data collection) #66 Germinating Giants #67 How Big is Your Tree? #70 Soil Stories</p> | <p>Science: 3rd Grade: I, B, 1: Ask questions about the natural world that can be investigated scientifically. 2: Participate in a scientific investigation using appropriate tools. 3: Know that scientists use different kinds of investigations depending on the questions they are trying to answer. IV, B, 1: Describe structures that serve different functions in growth, survival and reproduction for plants and animals. 2: Know that plants have different structures from animals that serve the same necessary functions in growth, survival and reproduction. IV, C, 1: Know that organisms interact with one another in various ways besides providing food. 2: Know that changes in a habitat can be beneficial or harmful to an organism. Science: 4th Grade: III, A, 1: Identify and investigate environmental issues and potential solutions. Social Studies: 4-8: V, C, 4: 2: Describe physical systems in the atmosphere and Earth's crust, and the regional patterns of climate and landforms associated with them. 3: Describe patterns of vegetation and landforms in the United States and around the world. V, D, 1: 2: Analyze how the physical environment influences human activities. Language Arts: 4th Grade: I, C, 7: Demonstrate relationships between ideas or events in the texts using graphic organizers. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. Mathematics: 4th Grade: II, A, 3: Use fractions and decimals to solve problems representing parts of a whole, parts of a set and division of whole numbers by whole numbers in real world and mathematical problems. II, B, 5: Use multiplication and division of whole numbers to solve simple real world and mathematical problems. IV, A, 1: Collect data using observations or surveys and represent the data with tables and graphs with labeling.</p> |

| Grade/ Strand | FOSS Module | Investigation | PLT Activity | MN Science Standards Benchmarks |
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| 5 th /6 th Life Science | Environments | Terrestrial Environments | <p>#9: Planet Diversity</p> <p>#12: Invasive Species</p> <p>#17: People of the Forest</p> <p>#20: Environmental Exchange Box</p> <p>#22: Trees As Habitats</p> <p>#33: Forest Consequences</p> <p>#46 Schoolyard Safari</p> <p>#47: Are Vacant Lots Vacant?</p> <p>#48: Field, Forest and Stream</p> <p>#50: 400 Acre Wood</p> <p>#80: Nothing Succeeds Like Succession</p> <p>#86: Our Changing World</p> | <p>Science:</p> <p>5th Grade:</p> <p>III, A, 1: Recognize the natural processes that cause rocks to break down into smaller pieces and eventually into soil.</p> <p>2: Investigate the formation, composition and properties of soil.</p> <p>3: Describe how waves, wind, water and ice shape and reshape the Earth's surface.</p> <p>4: Describe the impact of floods, tornadoes, earthquakes and volcanoes on the Earth.</p> <p>IV, E, 1: Recognize that individuals of the same species differ in their characteristics and that sometimes the differences give individuals an advantage in surviving and reproducing.</p> <p>2: Recognize that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival.</p> <p>IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun.</p> <p>2: The student will use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota.</p> <p>6th Grade:</p> <p>I, C, 1: Describe the types of questions asked, the produces, and the methods of investigation used to distinguish science from technology.</p> <p>Social Studies 4-8:</p> <p>II, A, 1: Describe the evidence of the indigenous cultures in Minnesota, and make reasoned inferences from that evidence.</p> <p>V, A, 2, 1: Locate major Minnesota ecosystems, topographic features, continental divides, river valleys and cities.</p> <p>V, C, 3: 4: Identify physical features that either hindered or promoted the industrialization of the state.</p> <p>V, D, 3: 1: Give examples of how changes in technology made some locations in Minnesota more suitable for urbanization than others.</p> <p>2: Analyze how changes in transportation affected settlement of the state.</p> <p>3: Explain the importance of site features in the establishment of Minnesota's largest cities.</p> <p>5: Identify the areas of origin for people coming to Minnesota, explain the push and pull factors that brought people to the state, and analyze the impact of these changes.</p> <p>6: Describe the settlement pattern of Minnesota's largest immigrant groups.</p> <p>7: Use regions to analyze modern agriculture in Minnesota.</p> <p>V, D, 5: Recognize changes over time in nearby landscapes, resulting from human occupation.</p> <p>VI, B, 1: Understand the concept of scarcity and its role in decision-making.</p> <p>2: Apply a decision-making process to make informed choices.</p> <p>3: Analyze how people respond predictable to positive and negative economic incentives.</p> <p>VII, A, 4:2: Explain the meaning of civic life and how all members of a community can be engaged.</p> <p>3: Identify and research community problems and recommend solutions.</p> <p>VII, B, 1: 1: Explain why government is needed and what would happen if there was no government.</p> <p>3: Define consent of the governed, liberty, equality, rights, responsibilities, justice, popular sovereignty, and general welfare, democracy republic, and representative democracy.</p> <p>Language Arts:</p> <p>5th Grade:</p> <p>I, A, 1: Read unfamiliar, complex and multi-syllabic words using advanced phonetic and structural analysis.</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction as well as independent reading.</p> <p>3: Use word reference materials, such as dictionaries, thesauruses, to understand and express word meaning.</p> <p>4: Analyze word structure and use context clues in order to understand new words.</p> <p>I, C, 2: Recall and use prior learning and preview text to prepare for reading.</p> <p>3: Summarize and paraphrase key ideas from text.</p> <p>4: Identify main idea and supporting details in fiction text.</p> <p>5: Infer main ideas and determine relevant details in non-fiction texts.</p> <p>6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization.</p> <p>7: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read.</p> <p>8: Distinguish fact from opinion and provide evidence to support conclusions.</p> <p>9: Determine cause and effect and draw conclusions.</p> |

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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Terrestrial Environments</p> | | <p>10: Compare and contrast information on the same topic from multiple sources. 11: Critically read and evaluate text to identify author's point of view and purpose. I, D, 1: Read a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries. 2: Identify and analyze literary elements and devices in works of fiction including characterization, plot, tone and theme and the ways they convey meaning. 4: Interpret literature by answering question that asks for analysis and evaluation. 7: Identify and determine the meanings of similes and metaphors. 8: Respond to literature using ideas and details from the text to support reactions and make literary connections. 9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, B, 1: Write topic sentences. 2: Create multiple paragraph compositions that include: correct paragraph indentation style, an introductory paragraph formulating a thesis or opinion, supporting evidence in paragraph form that upholds the overall thesis or opinion and, a concluding paragraph as a summary. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Consider the intended audience when composing text. II, C, 1: Compose complete sentences when writing. 2: Edit written documents for correct spelling. 3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly. 4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives. 5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks. II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet. 2: Formulate research questions and collect relevant information or perform observations that address such questions. II, E, 1: Write legibly in cursive. 2: Apply keyboarding skills. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 4: Give oral presentations to various audiences for different purposes. 5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas. 6th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 2: Analyze word structure and use cueing systems to understand new words. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 4: Apply a range of monitoring strategies and self-correction methods. 5: Identify the main idea and supporting details. 6: Retell significant sequences of events or ideas. 9: Create outlines, logical notes and summaries across content areas. 12: Compare and contrast information from different sources on the same topic. I, D, 5: Describe how figurative language (simile and metaphor) and literary devices contribute to the meaning of a text. II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 1: Create multiple paragraph compositions that state, maintain and use details in a logical order to support a main idea. 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> |
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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Terrestrial Environments</p> | | <p>5: Consider the intended audience when composing text. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and first words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. 3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report. 4: Define plagiarism and avoid its use. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 4: Apply assessment criteria to self-evaluate oral presentations. 5: Distinguish between a speaker's opinion and verifiable facts. 6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes. 7: Perform expressive oral readings of prose, poetry or drama. Mathematics: 5th Grade: II, B, 1: Use addition, subtraction, multiplication and division of multi-digit whole numbers to solve multi-step, real-world or mathematical problems. IV, A 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. 6th Grade: I, A, 3: Translate a problem described verbally or by tables, diagrams or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in original context. II, B, 3: Use addition, subtraction, multiplication and division of multi-digit whole and decimal numbers to solve multi-step real world and mathematical problems. IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs.</p> |
| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Bugs and Beetles</p> | <p>#7: Habitat Pen Pals #8: The Forest of S.T. Shrew #10: Charting Diversity #11: Can It Be Real? # 23: The Fallen Log #24: Nature's Recyclers #77: Trees In Trouble</p> | <p>Science: 5th Grade: I, B, 1: Perform a controlled experiment using a specific stop-by-step procedure and present conclusions supported by the evidence. 2: Observe that when a science investigation or experiment is repeated, a similar result is expected. IV, E, 1: Recognize that individuals of the same species differ in their characteristics and that sometimes the differences give individuals an advantage in surviving and reproducing. 2: The student will recognize that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival. IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun. 2: Use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota. Social Studies 4-8: V, C, 4: 3: Describe patterns of vegetation and landforms in the United States and around the world. Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 3: Use word reference materials, such as dictionaries, thesauruses, to understand and express word meaning. 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 8: Distinguish fact from opinion and provide evidence to support conclusions. 9: Determine cause and effect and draw conclusions. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports.</p> |

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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Bugs and Beetles</p> | | <p>II, B, 3: Use composing processes, including: prewriting-planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising- improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience.</p> <p>4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>5: Consider the intended audience when composing text.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>2: Edit written documents for correct spelling.</p> <p>3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly.</p> <p>4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives.</p> <p>5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks.</p> <p>II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet.</p> <p>2: Formulate research questions and collect relevant information or perform observations that address such questions.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Demonstrate active listening and comprehension.</p> <p>3: Distinguish between speaker's opinion and verifiable facts.</p> <p>4: Give oral presentations to various audiences for different purposes.</p> <p>5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas.</p> <p>III, C, 3: Evaluate the accuracy and credibility of information found on Internet sites.</p> <p>6th Grade:</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.</p> <p>I, C, 6: Retell significant sequences of events or ideas.</p> <p>I, D, 4: Analyze characters through identifying thoughts, words, actions and narrator's description.</p> <p>II, B, 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>4: Use composing processes to develop writing, including: prewriting- planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting – organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing – correcting errors in spelling and grammar; publishing – producing a document and sharing the writing with the audience.</p> <p>5: Consider the intended audience when composing text.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>2: Edit writing for correct spelling and sentence clarity.</p> <p>3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase.</p> <p>4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue).</p> <p>II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print.</p> <p>2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas.</p> <p>3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension.</p> <p>3: Actively listen and comprehend messages.</p> <p>5: Distinguish between a speaker's opinion and verifiable facts.</p> <p>6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes.</p> <p>7: Perform expressive oral readings of prose, poetry or drama.</p> |
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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Water Tolerance</p> | <p>#27: Every Tree For Itself</p> <p>#29 Rain Reasons</p> <p>#44: Water Wonders</p> <p>#49: Tropical Tree house</p> <p>#81: Living With Fire (Use recommended Reading Connections)</p> | <p>Science:</p> <p>5th Grade:</p> <p>I, B, 1: Perform a controlled experiment using a specific step-by-step procedure and present conclusions supported by the evidence.</p> <p>2: Observe that when a science investigation or experiment is repeated, a similar result is expected.</p> <p>IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun.</p> <p>2: Use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota.</p> <p>3: Recognize that organisms are growing, dying and decaying, and that their matter is recycled.</p> <p>6th Grade:</p> <p>I, B, 1: Identify questions that can be answered through scientific investigation and those that cannot.</p> <p>2: Distinguish among observation, prediction and inference.</p> <p>3: Use appropriate tools and Systeme International (SI) units for measuring length, time, mass, volume and temperature with suitable precision and accuracy.</p> <p>4: Present and explain data and findings from controlled experiments using multiple representations including tables, graphs, physical models and demonstrations.</p> <p>Social Studies 4-8:</p> <p>V, C, 4:3: Describe patterns of vegetation and landforms in the United States and around the world.</p> <p>V, D, 1: 2: Analyze how the physical environment influences human activities.</p> <p>VI, B, 1: 2: Apply a decision-making process to make informed choices.</p> <p>VII, B, 4: 1: Explain how law limits both the government and the governed, protects individual rights and promotes the general welfare.</p> <p>Language Arts:</p> <p>5th Grade:</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction as well as independent reading.</p> <p>2: Use knowledge of root words, derivations, antonyms, synonyms, idioms, homonyms and multiple meaning words to determine word meanings and to understand texts.</p> <p>I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization.</p> <p>9: Determine cause and effect and draw conclusions.</p> <p>II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports.</p> <p>II, B, 3: Use composing processes, including: prewriting-planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising- improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience.</p> <p>4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>2: Edit written documents for correct spelling.</p> <p>3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly.</p> <p>4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives.</p> <p>5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks.</p> <p>II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet.</p> <p>2: Formulate research questions and collect relevant information or perform observations that address such questions.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Demonstrate active listening and comprehension.</p> <p>4: Give oral presentations to various audiences for different purposes.</p> <p>5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas.</p> <p>6th Grade:</p> <p>I, A, 2: Read narrative and expository text with fluency, accuracy and appropriate pacing.</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.</p> |
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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Water Tolerance</p> | | <p>4: Determine the meaning of unknown words using knowledge of common Greek and Latin roots, suffixes and prefixes. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 6: Retell significant sequences of events of ideas. 9: Create outlines, logical notes and summaries across content areas. II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 2: Create narratives that develop settings, people/characters, dialogue and conflicts using descriptive, concrete language to engage audiences. 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. 3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 7: Perform expressive oral readings of prose, poetry or drama. III, C, 1: Identify distinctions in how information is presented in print and non-print materials. 2: Evaluate the accuracy and credibility of information found on Internet sites. 3: Make informed evaluations about television, radio, film productions, newspapers and magazines with regard to quality of production, accuracy of information, bias, purpose, message and audience. Mathematics: 5th Grade: IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. V, C, 3: Select and apply the appropriate units and tools to measure perimeter, area and capacity. 6th Grade: IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs.</p> |
| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Aquatic Environments</p> | <p>#45: Web of Life #72: Watch on Wetlands (modified for grade level) #84: The Global Climate</p> | <p>Science: 5th Grade: IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun. 2: Use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota. 3: Recognize that organisms are growing, dying and decaying, and that their matter is recycled. Social Studies 4-8: V, D, 5: Recognize changes over time in nearby landscapes, resulting from human occupation. VI, A, 1: Compare and contrast the roles of producers and consumers. 2: Explain that in market economies, individuals earn income by working for firms to produce goods and services, and firms incur costs by hiring individuals and earn revenue by selling goods and services. VI, B, 1: 1: Understand the concept of scarcity and its role in decision-making. 2: Apply a decision-making process to make informed choices. 3: Analyze how people respond predictably to positive and negative economic incentives.</p> |

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| <p>5th/6th Life Science</p> | <p>Environments</p> | <p>Aquatic Environments</p> | | <p>Language Arts: 5th Grade: I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet. 2: Formulate research questions and collect relevant information or perform observations that address such questions. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 6th Grade: I, A, 1: Read familiar, complex and multi-syllabic words using advanced phonetic analysis and structural analysis. I, B, 1: Acquire, understand and use new vocabulary through explicit instruction as well as independent reading. 2: Use knowledge of root words, derivations, antonyms, synonyms, idioms, homonyms and multiple meaning words to determine word meanings and to understand texts. 4: Determine the meaning of unknown words using knowledge of common Greek and Latin roots, suffixes and prefixes. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. Mathematics: 6th Grade: I, A, 3: Translate a problem described verbally or by tables, diagrams or graphs, into suitable mathematical language, solve the problem mathematically and interpret the result in the original context. II, B, 3: Use addition, subtraction, multiplication and division of multi-digit whole and decimal numbers to solve multi-step real world and mathematical problems. 8: Find, represent and use percentages in real world and mathematical problems, including percentages greater than 100% and less than 1%. IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs. IV, B, 1: Generate and display data in graphs and tables to estimate experimental probabilities. V, C, 2: Express measures of time and distance as fractions, mixed numbers and decimals to solve real world and mathematical problems.</p> |
| <p>5th/6th Life Science</p> | <p>Food and Nutrition</p> | <p>General connections to the curriculum</p> | <p>#15: A Few of My Favorite Things (Emphasis on Foods) #16: Pass the Plants, Please #92: A Look at Lifestyles (Emphasis on Foods)</p> | <p>Social Studies: 4-8: I, A, 1: Compare ways of life of Indian Nations from different regions of North America. I, B, 1: Identify key European explorers and how their voyages led to the establishment of colonies. V, D, 1: Identify factors that drew people to their local communities. V, D, 2: Analyze how the physical environment influences human activities. VI, A, 1: Compare and contrast the roles of producers and consumers. VI, B 1: Understand the concept of scarcity and its role in decision making. 2: Apply a decision making process to make informed choices. Language Arts: 5th Grade: I, A, 1: Read unfamiliar, complex and multi-syllabic words using advanced phonetic and structural analysis. I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 2: Use knowledge of root words, derivations, antonyms, synonyms, idioms, homonyms and multiple meaning words to determine word meanings and to understand texts.</p> |

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| <p>5th/6th Life Science</p> | <p>Food and Nutrition</p> | <p>General connections to the curriculum</p> | <p>3: Use word reference materials, such as dictionaries, thesauruses, to understand and express word meaning. 4: Analyze word structure and use context clues in order to understand new words. I, C, 1: Read aloud grade appropriate text (that has not been reviewed) with accuracy and comprehension. 2: Recall and use prior learning and preview text to prepare for reading. 4: Identify main idea and supporting details in fiction text. 5: Infer main ideas and determine relevant details in nonfiction texts. 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 7: Generate and answer literal, inferential, interpretive, and evaluative questions to demonstrate understanding about what is read. 8: Distinguish fact from opinion and provide evidence to support conclusions. 9: Determine cause and effect and draw conclusions. 10: Compare and contrast information on the same topic from multiple sources. 11: Critically read and evaluate text to identify author's point of view and purpose. I, D, 1: Read a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries. 4: Interpret literature by answering questions that ask for analysis and evaluation. 7: Identify and determine the meanings of similes and metaphors. 8: Respond to literature using ideas and details from the text to support reactions and make literary connections. 9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, B, 2: Create multiple paragraph compositions that include: a correct paragraph indentation style, an introductory paragraph formulating a thesis or opinion, supporting evidence in paragraph form that upholds the overall thesis or opinion, and a concluding paragraph as a summary. 3: Use composing processes, including: prewriting-planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising- improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. II, C, 1: Compose complete sentences when writing. 2: Edit written documents for correct spelling. 3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly. 4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives. 5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 4: Give oral presentations to various audiences for different purposes. 6: Perform expressive oral readings of prose, poetry or drama. 6th Grade: I, A, 2: Read narrative and expository text with fluency, accuracy and appropriate pacing. I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 5: Identify the main idea and supporting details. 6: Retell significant sequences of events or ideas. 7: Distinguish fact from opinion and give examples from text. 8: Identify the author's purpose (stated or implied), audience and message. 9: Create outlines, logical notes and summaries across content areas.</p> |
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| <p>5th/6th Life Science</p> | <p>Food and Nutrition</p> | <p>General connections to the curriculum</p> | | <p>13: Critically read and evaluate to determine the author’s purpose, point of view, audience and message. I, D, 1: Read a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries. 2: Identify and describe the characteristics of various genres. 3: Identify and describe the relationships among elements of fiction including setting, character, plot, conflict/resolution, theme and tone. 6: Relate a given literary work to historical events (place, time and custom). II, B, 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. 3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report. 4: Define plagiarism and avoid its use. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes. III, C, 1: Identify distinctions in how information is presented in print and non-print materials. Mathematics: 5th Grade: IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. V, C, 3: Select and apply the appropriate units and tools to measure perimeter, area and capacity. 6th Grade: IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs.</p> |
| <p>5th/6th Physical Science</p> | <p>Mixtures and Solutions</p> | <p>General connections to the Curriculum</p> | <p>#13: We All Need Trees: Part B #32: A Forest of Many Uses: Part B #34: Who works in the Forest? Activities that Make Mixtures and Solutions: #51: Make Your Own Paper #93: Paper Civilizations</p> | <p>Science: 5th Grade: I, C, 1: Describe different kinds of work done in science and technology. Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction as well as independent reading. I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 10: Compare and contrast information on the same topic from multiple sources. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry persuasive, thank you notes, reports. II, B, 1: Write topic sentences. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 3: Distinguish between speaker’s opinion and verifiable facts. 4: Give oral presentations to various audiences for different purposes. 5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas. 6th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read.</p> |

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| 5 th /6 th Physical Science | Mixtures and Solutions | General connections to the curriculum | | <p>5: Identify the main idea and supporting details. 12: Compare and contrast information from different sources on the same topic. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 4: Apply assessment criteria to self-evaluate oral presentations. 5: Distinguish between a speaker’s opinion and verifiable facts. 6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes.</p> |
| 5 th /6 th Physical Science | Levers and Pulleys | General Connections to curriculum | Connections to Machines: #52: A Look at Aluminum #53: On the Move | Social Studies: 4-8 VII, A 4, 3: Identify and research community problems and recommend solutions. Mathematics: 5th Grade: II, B 1: Use addition, subtraction, multiplication and division of multi-digit whole numbers to solve multi-step, real world and mathematical problems. 2: Add and subtract numbers with up to two decimal places in real world or mathematical problems. IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. 6th Grade: II, B, 4: Multiply and divide, without a calculator, numbers containing up to three digits by numbers containing up to two digits, such as 347/83 or 4.91X9.2 |
| 5 th /6 th Earth Science | Solar Energy | Sun tracking Heating the Earth Solar Water Heaters Solar Houses | #14: Renewable or Not? #27: Every Tree For Itself # 39: Energy Sleuths #41: How Plants Grow #42: Sunlight and Shades of Green # 48: Field, Forest and Stream # 55: Planning the Ideal Community #70 Soil Stories # 84: The Global Climate #86: Our Changing World | Science: 5th Grade: III, A, 1: Recognize the natural processes that cause rocks to break down into smaller pieces and eventually into soil. 2: Investigate the formation, composition and properties of soil. 3: Describe how waves, wind, water and ice shape and reshape the Earth’s surface. IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun, 2: Use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota. 3: Recognize that organisms are growing, dying and decaying, and that their matter is recycled. Social Studies 4-8: V, B, 1: 1: Use political and thematic maps to locate major physical and cultural regions of the world and ancient civilizations studied. V, C, 4: 2: Describe physical systems in the atmosphere and Earth’s crust, and the regional patterns of climate and landforms associated with them. 3: Describe patterns of vegetation and landforms in the US and around the world. V, D, 1: 1: Identify factors that drew people to their local communities. VI, A, 1: Compare and contrast the roles of producers and consumers. 2: Explain that in market economies, individuals earn income by working for firms to produce goods and services, and firms incur costs by hiring individuals and earn revenue by selling goods and services. 3: Explain how a market economy answers the questions of what gets produced, how it is produced, and who receives it, and how it differs from other economic systems. 4: Explain that a market exists when consumers buy and producers sell goods and services. 5: Explain how the price of a good is determined by supply and demand (the interrelationship between production and consumption). VI, B, 1: Understand the concept of scarcity and its role in decision making. 2: Apply a decision making process to make informed choices. 3: Analyze how people respond predictably to positive and negative economic incentives. Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 9: Determine cause and effect and draw conclusions. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, |

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| <p>5th/6th Earth Science</p> | <p>Solar Energy</p> | <p>Sun tracking Heating the Earth Solar Water Heaters Solar Houses</p> | | <p>organizing information, and editing for logical progression. II, C, 1: Compose complete sentences when writing. 2: Edit written documents for correct spelling. 3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly. 4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives. 5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks. II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet. 2: Formulate research questions and collect relevant information or perform observations that address such questions. 3: Define plagiarism and avoid its use. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 4: Give oral presentations to various audiences for different purposes. 5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas. 6th Grade: I, B, 1: Acquire, understand and use vocabulary through explicit instruction and independent reading. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 5: Identify the main idea and supporting details. 6: Retell significant sequences of events or ideas. 7: Distinguish fact from opinion and give examples from text. 8: Identify the author's purpose (stated or implied), audience and message. 9: Create outlines, logical notes and summaries across content areas. 13: Critically read and evaluate to determine the author's purpose, point of view, audience and message. II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 1: Create multiple paragraph compositions that state, maintain and use details in a logical order to support a main idea. 2: Create narratives that develop settings, people/characters, dialogue and conflicts using descriptive, concrete language to engage audiences. 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Consider the intended audience when composing a text. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and first words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. 3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report. 4: Define plagiarism and avoid its use. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 4: Apply assessment criteria to self-evaluate oral presentations. 6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes. Mathematics:</p> |
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| 5 th /6 th Earth Science | Solar Energy | Sun tracking Heating the Earth Solar Water Heaters Solar Houses | | <p>5th Grade: IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. V, C, 3: Select and apply the appropriate units and tools to measure perimeter, area and capacity.</p> <p>6th Grade: IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs.</p> |
| 5 th /6 th Earth Science | Landforms | Schoolyard Models | #46; Schoolyard Safari #47: Are Vacant Lots Vacant? | <p>Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction as well as independent reading. II, B, 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. II, D, 2: Formulate research questions and collect relevant information or perform observations that address such questions.</p> <p>Mathematics: 5th Grade: IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling.</p> |
| 5 th /6 th Earth Science | Landforms | Stream Tables Go With the Flow Build a Mountain Bird's-eye View | #38: Every Drop Counts #44: Water Wonders #48: Field, Forest and Stream #49: Tropical Treehouse #70 Soil Stories #71: Watch on Wetlands #96: Improve Your Place | <p>Science: 5th Grade: I, B, 1: Perform a controlled experiment using a specific step-by-step procedure and present conclusions supported by the evidence. 2: Observe that when a science investigation or experiment is repeated, a similar result is expected. III, A, 1: Recognize the natural processes that cause rocks to break down into smaller pieces and eventually into soil. 2: Investigate the formation, composition and properties of soil. 4: Describe the impact of floods, tornadoes, earthquakes and volcanoes.</p> <p>Social Studies 4-8: II, E, 1: Know and explain the roles of people, politics, natural resources, transportation, and technology in the development of Minnesota's early industries (lumbering, agriculture, and mining). II, G, 4: Identify and describe significant land use changes in Minnesota, issues related to land use, and analyze the impact of those changes and issues. V, C, 4: 3: Describe patterns of vegetation and landforms in the US and around the world. V, D, 1: 2: Analyze how the physical environment influences human activities. VI, B, 1: Understand the concept of scarcity and its role in decision making. 2: Apply decision making process to make informed choices. 3: Analyze how people respond predictably to positive and negative economic incentives. VII, A, 1, 1: Identify people who have dealt with challenges and made a positive difference in other people's lives and explain their contributions. VII, A, 4: 2: Explain the meaning of civic life and how all members of a community can be engaged. 3: Identify and research community problems and recommend solutions. VII, B, 4: 1: Explain how law limits both the government and the governed, protects individual rights and promotes the general welfare.</p> <p>Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. II, A, 1: Write a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, B, 3: Use composing processes, including: prewriting- planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience.</p> |

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| <p>5th/6th Earth Science</p> | <p>Landforms</p> | <p>Stream Tables</p> <p>Go With the Flow</p> <p>Build a Mountain</p> <p>Bird's-eye View</p> | | <p>4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>2: Edit written documents for correct spelling.</p> <p>3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly.</p> <p>4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives.</p> <p>5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks.</p> <p>II, D, 1: Locate and keep notes on the information in various reference materials including print and online dictionaries, glossaries, encyclopedias, CD reference materials and the Internet.</p> <p>2: Formulate research questions and collect relevant information or perform observations that address such questions.</p> <p>6th Grade:</p> <p>I, A, 2: Read narrative and expository text with fluency, accuracy and appropriate pacing.</p> <p>I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.</p> <p>I, C, 1: Summarize and paraphrase what is read.</p> <p>2: Recall and use prior learning and preview text to prepare for reading.</p> <p>3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read.</p> <p>II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports.</p> <p>II, B, 1: Create multiple paragraph compositions that state, maintain and use details in a logical order to support a main idea.</p> <p>3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression.</p> <p>II, C, 1: Compose complete sentences when writing.</p> <p>2: Edit writing for correct spelling and sentence clarity.</p> <p>3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase.</p> <p>4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue).</p> <p>II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print.</p> <p>2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas.</p> <p>3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report.</p> <p>III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.</p> <p>2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension.</p> <p>3: Actively listen and comprehend messages.</p> <p>7: Perform expressive oral readings of prose, poetry or drama.</p> <p>III, C, 1: Identify distinctions in how information is presented in print and non-print materials</p> <p>2: Evaluate the accuracy and credibility of information found in Internet sites.</p> <p>3: Make informed evaluations about television, radio, film productions, newspapers and magazines with regard to quality of production, accuracy of information, bias, purpose, message and audience.</p> <p>Mathematics:</p> <p>5th Grade:</p> <p>IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling.</p> <p>6th Grade:</p> <p>IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs.</p> |
| <p>5th/6th Technology and reasoning</p> | <p>Models and Designs</p> | <p>General connections to curriculum</p> | <p>#13; We All Need Trees</p> <p>#32 A Forest of Many Uses</p> <p>#34: Who Works in</p> | <p>Science:</p> <p>5th Grade:</p> <p>I, C, 1: Describe different kinds of work done in science and technology</p> <p>2: Identify men and women of various backgrounds and ages who have been involved in science and technology, both past and present.</p> |

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| <p>5th/6th Technology and reasoning</p> | <p>Models and Designs</p> | <p>General connections to curriculum</p> | <p>This Forest #44: Water Wonders #77: Trees in Trouble #88: Life on the Edge #91: In the Good Old Days</p> | <p>II, D, 1: Investigate the use of a lever, inclined plane and wheel and axel to move objects. IV, E, 1: Recognize that individuals of the same species differ in their characteristics and that sometimes the differences give individuals an advantage in surviving and reproducing. 2: Recognize that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to allow its survival. 3: Compare the structure of fossils to one another and to living organisms. IV, F, 1: Recognize that organisms need energy to stay alive and grow, and that this energy originates from the sun. 2: Use food webs to describe the relationships among producers, consumers, and decomposers in an ecosystem in Minnesota. 3: Recognize that organisms are growing, dying and decaying, and that their matter is recycled. 6th Grade: I, A, 1: Distinguish between scientific evidence and personal opinion. 2: Explain why scientists often repeat investigations to be sure of results. I, B, 1: Identify questions that can be answered through scientific investigation and those that cannot. 2: Distinguish among observation, prediction and inference. 3: Use appropriate tools and Systeme International (SI) units for measuring length, time, mass, volume and temperature with suitable precision and accuracy. 4: Present and explain data and findings from controlled experiments using multiple representations including tables, graphs, physical models and demonstrations. I, C, 1: Describe the types of question asked, the products, and the methods of investigation used to distinguish science from technology. II, E, 1: Know that electric currents and magnets can exert a force on certain objects and each other. Language Arts: 5th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. 2: Use knowledge of root words, derivations, antonyms, synonyms, idioms, homonyms and multiple-meaning words to determine word meanings and to understand texts. I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 9: Determine cause and effect and draw conclusions. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes and reports. II, B, 1: Write topic sentences. 3: Use composing processes, including: prewriting- planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Consider the intended audience when composing text. II, C, 1: Compose complete sentences when writing. 2: Edit written documents for correct spelling. 3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly. 4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives. 5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks. II, D, 2: Formulate research questions and collect relevant information or perform observations that address such questions. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 4: Give oral presentations to various audiences for different purposes. 5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas. 6th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading.</p> |
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| <p>5th/6th Technology and reasoning</p> | <p>Models and Designs</p> | <p>General connections to curriculum</p> | | <p>4: Determine the meaning of unknown words using knowledge of common Greek and Latin roots, suffixes and prefixes. I, C, 1: Summarize and paraphrase what is read. 2: Recall and use prior learning and preview text to prepare for reading. 3: Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read. 5: Identify the main idea and supporting details. 6: Retell significant sequences of events or ideas. 8: Identify the author’s purpose (stated or implied), audience and message. 9: Create outlines, logical notes and summaries across content areas. 12: Compare and contrast information from different sources on the same topic. 13: Critically read and evaluate to determine the author’s purpose, point of view, audience and message. I, D, 1: Read a variety of high quality, traditional, classical and contemporary literary works specific to America, as well as significant works from other countries. 2: Identify and describe the characteristics of various genres. 4: Analyze characters through identifying thoughts, words, actions and narrator’s description. 6: Relate a given literary work to historical events (place, time and custom.) 8: Respond to literature using ideas and details from the text to support reactions and make literary connections. 9: Read from and respond to a variety of fiction, poetic and nonfiction texts of increasing complexity for personal enjoyment II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 1: Create multiple paragraph compositions that state, maintain and use details in a logical order to support a main idea. 2: Create narratives that develop settings, people/characters, dialogue and conflicts using descriptive, concrete language to engage audiences. 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 4: Use composing processes to develop writing, including: prewriting- planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting – organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing – correcting errors in spelling and grammar; publishing – producing a document and sharing the writing with the audience. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. 2: Clarify an understanding of text by creating outlines, logical notes and summaries across content areas. 3: Cite sources for both quoted and paraphrased information in a bibliography when writing a research report. 4: Define plagiarism and avoid it. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. 5: Distinguish between a speaker’s opinion and verifiable facts. 6: Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes. 7: Perform expressive oral reading of prose, poetry or drama. III, C, 1: Identify distinctions in how information is presented in print and non-print materials.</p> |
| <p>5th/6th Technology and reasoning</p> | <p>Variables</p> | <p>General connections to curriculum</p> | <p># 41:How Plants Grow #70: Soil Stories #77: Trees in Trouble</p> | <p>Science: 5th Grade: I, B, 1: Perform a controlled experiment using a specific step-by-step procedure and present conclusions supported by the evidence. 2: Observe that when a science investigation or experiment is repeated, a similar result is expected.</p> |

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| <p>5th/6th Technology and reasoning</p> | <p>Variables</p> | <p>General connections to curriculum</p> | <p>III, A, 1: Recognize the natural processes that cause rocks to break down into smaller pieces and eventually into soil. 2: Investigate the formation, composition and properties of soil. 4: Describe the impact of floods, tornadoes, earthquakes and volcanoes on the Earth. Social Studies 4-8: V, C, 4: 3: Describe patterns of vegetation and landforms in the US and around the world. V, D, 1: 2: Analyze how the physical environment influences human activities. Language Arts: 5th Grade: I, B, 1: Acquire, understand and uses new vocabulary through explicit instruction and independent reading. I, C, 6: Generate graphic organizers to enhance comprehension of texts and to describe text structure and organization. 9: Determine cause and effect and draw conclusions. II, A, 1: Write in a variety of modes to express meaning, including: descriptive, narrative, informative, formal letter, poetry, persuasive, thank you notes, and reports. II, B, 2: Create multiple paragraph compositions that include: correct paragraph indentation style, and introductory paragraph formulating a thesis or opinion, supporting evidence in paragraph form that upholds the overall thesis or opinion, and a concluding paragraph as a summary. 3: Use composing processes, including: prewriting- planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting- organizing, supporting and putting ideas into sentences and paragraphs; revising – improving the quality of content, organization, sentence structure and word choice; editing- correcting errors in spelling and grammar; publishing- producing a document and sharing the writing with the audience. 4: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 5: Consider the intended audience when composing text. II, C, 1: Compose complete sentences when writing. 2: Edit written documents for correct spelling. 3: Spell roots, suffixes, prefixes, contractions, and syllable constructions correctly. 4: Apply grammar conventions correctly in writing, including: verb tense, prepositional phrases, adverbs, subject and verb agreement with simple subjects, and possessive pronouns and plural possessives. 5: Apply punctuation conventions correctly in writing, including: apostrophes, capitalization of proper nouns, abbreviations, sentence beginnings, commas, and quotation marks. II, D, 2: Formulate research questions and collect relevant information or perform observations that address such questions. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Demonstrate active listening and comprehension. 4: Give oral presentations to various audiences for different purposes. 5: Restate or summarize and organize ideas sequentially using evidence to support opinions and main ideas. 6th Grade: I, B, 1: Acquire, understand and use new vocabulary through explicit instruction and independent reading. II, A, 1: Write frequently in a variety of forms, including but not limited to the following: poems, stories, plays, essays, journals, letters, directions, editorials, business communications and reports. II, B, 3: Create informative reports; including gathering material, formulating ideas based on gathered material, organizing information, and editing for logical progression. 4: Use composing processes to develop writing, including: prewriting – planning strategies such as brainstorming, journaling, sketching, listing, outlining and determining audience, purpose and focus; drafting – organizing, supporting and putting ideas into sentences and paragraphs; revising- improving the quality of content, organization, sentence structure and word choice; editing – correcting errors in spelling and grammar; publishing – producing a document and sharing the writing with the audience. II, C, 1: Compose complete sentences when writing. 2: Edit writing for correct spelling and sentence clarity. 3: Apply grammar conventions correctly in writing, including: consistent verb tense, subject and verb agreement with simple and compound subjects, nominative case, objective, and possessive pronouns, and subject and verb agreement when interrupted by a phrase. 4: Apply punctuation conventions correctly in writing, including: apostrophe, semi-colon, capitalization of proper nouns, abbreviations, sentence beginnings and fist words in quotes, commas (after opening words, in compound</p> |
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| 5 th /6 th Technology and reasoning | Variables | General connections to curriculum | | sentences, and after subordinating conjunctions), quotation marks (to identify dialogue). II, D, 1: Gather and synthesize information from a variety of sources, including electronic and print. III, A, 1: Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups. 2: Know and apply listening rules and expectations for formal settings and demonstrate comprehension. 3: Actively listen and comprehend messages. Mathematics: 5th Grade: IV, A, 3: Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling. 6th Grade: IV, A, 1: Collect, organize and represent categorical and numerical data with tables and bar graphs. |
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The correlations contained within this chart were made using Minnesota Academic Standards and comparing activities that had similar student objectives and learner outcomes. Where possible, I have made direct links to FOSS lessons within each module. Where there were no distinct similarities between activities, I looked at the MN standards and made links that had general connections to the curriculum that could extend the learning opportunities provided by FOSS. There are also some specific focus recommendations for some of the PLT activities, for example: for the 3rd/4th grade measurements unit, the PLT activity #48 Field, Forest and Stream is recommended, focusing on the measurement opportunities in that PLT activity. Also, some PLT activities matched the FOSS modules very well, but were recommended for a different grade level. (See Kindergarten/Wood & Paper/Getting to Know Paper. The PLT activity #51 Make Your Own Paper is recommended for grades 1-8. With simple modifications, or perhaps the help of older student mentors, this activity meshes perfectly with the FOSS module.) There are also direct literature links between the FOSS Science Stories and the PLT recommended books. I have included these links in several places in the chart.

The different grades have been color coded for ease of usability: Kindergarten is green, 1st/2nd grade is red, 3rd/4th grade is purple, and 5th/6th grade is blue. The FOSS modules are listed in the yellow column, and the PLT activities are in the orange column.