

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
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>

<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>

<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: 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. 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, 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. Social Studies 4-8: V, C, 4:3: 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. VI, B, 1: 2: Apply a decision-making process to make informed choices. VII, B, 4: 1: Explain how law limits both the government and the governed, protects individual rights and promotes the general welfare. Language Arts: 5th Grade: 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. 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, 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. 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. 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, 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.</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 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. 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>

<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>

<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?</p> <p>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>

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,

<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>

<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>

<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>

<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.