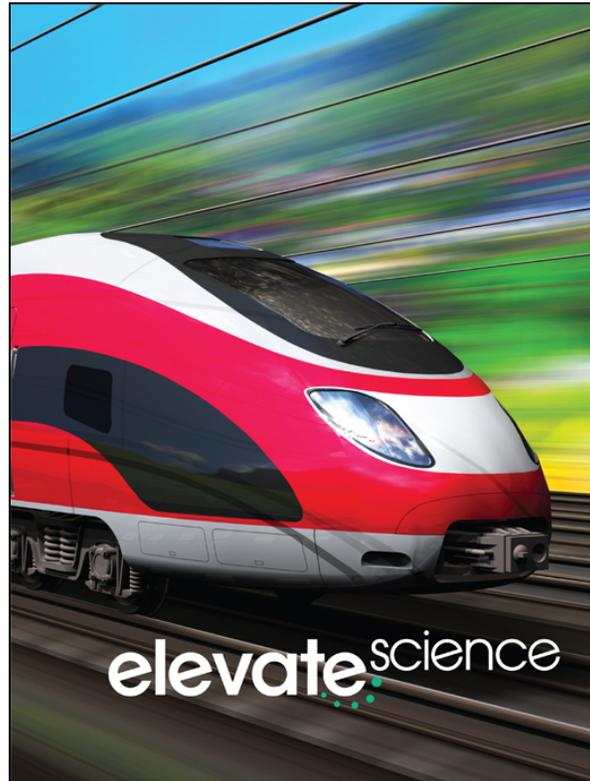


A Correlation of
Elevate Science
Grade 4, ©2019



To the
Loudoun County Public Schools
Grade 4 Rubric

LCPS Grade Four Rubric

Publisher: Savvas Learning Company, LLC

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In grades third through fifth, students will develop and apply more sophisticated skills in posing questions and predicting outcomes, planning and conducting simple investigations, collecting and analyzing data, constructing explanations, and communicating information about the natural world. Students continue to use the engineering design process to apply their scientific knowledge to solve problems. Mathematics and computational thinking gain importance as students advance in their scientific thinking. Technologies and scientific tools are used when appropriate and feasible. Mathematics, computational thinking, and experience in the engineering design process are essential as students advance in their scientific thinking.

Resources Meet the LCPS Science Philosophy and Practice

Criteria	Correlation: Must address the identified need. When appropriate, provide examples in the resource. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
<p>Instructional resources should develop students' ability to know, use, and interpret scientific explanations of the natural world; including developing and using models.</p>	<p><i>Elevate Science</i> requires students to engage in scientific inquiry as they engage, think, investigate, and interact with natural phenomena through a variety of investigations designed to integrate elements of three-dimensional learning, such as developing and using models, interpreting and analyzing data, research activities, problem-based exercises and more. Organized by thematic topic, students “experience” science through a variety of scaffolded hands-on, inquiry activities designed to build their understanding of science concepts as they create explanations to explain phenomena about their natural world.</p> <p>For examples, please see the following: ATE: STEM Quest Check-In Lab: How does modeling help you understand a collision?, 22-23 uInvestigate Lab: How does electric energy flow in circuits?, 35 uInvestigate Lab: How does a wave carry energy?, 107</p>

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<p>Instructional resources should develop students' ability to generate and evaluate scientific evidence and explanations; including developing and using models.</p>	<p><i>Elevate Science</i> is designed to facilitate the development of students' ability to generate and evaluate scientific evidence and explanations through activities that integrate elements of three-dimensional learning, such as analyzing and interpreting data, constructing explanations and designing solutions, developing and using models, and more. The Quest problem-based learning scenario provides a context for student learning and affords them the opportunity to develop models, generate data, and gather evidence to support their explanations of scientific phenomena.</p> <p>For examples, please see the following: ATE: uConnect Lab: How do we describe waves?, 104 uEngineer It! Model STEM: Making a Good Impression, 256-257 uEngineer It! Model STEM: Eye See You!, 324-325</p>
<p>Instructional resources should develop students' ability to understand the nature and development of scientific knowledge; When appropriate, instructional resources present multiple scientific perspectives and interpretations of scientific ideas as a representation of how science develops understanding of the natural world.</p>	<p>A variety of student-centered activities are incorporated in each topic to provide students with multiple perspectives on a theme. Science is presented as a 'quest' to discover knowledge and uncover new ideas, and not presented as a collection of facts to memorize. Students are encouraged to be active participants in their learning as they find solutions to real-world problems and participate in their learning 'adventure'.</p>

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<p>Instructional resources should develop students' ability to participate productively in scientific practices and discourse.</p>	<p><i>Elevate Science</i> includes a variety of program resources that assist students in developing the ability to participate in scientific discourse and engage in the scientific practices. Each topic opens with an image where students discuss the phenomenon presented and generate questions they would like to explore and learn more about. In-text features in every lesson include prompts like 'Explain', 'Tell', and 'Compare your results with others' for students to share their thinking. Along with teacher edition notes, students are encouraged to engage in conversations about what they think and what they know. The topic activities are built around the application of scientific practices. Students plan and conduct investigations, and interpret and analyze data gathered in the execution of their experiments. They develop and use models to explain the key concepts and use the text (both print and digital) as a method for obtaining and communicating information. Specific features like the Visual Literacy Connections (grades 3-5), the Literacy Connections (K-5), and the Quests (K-8) actively promote the development of the practices through the context of the topic's phenomenon.</p> <p>For examples, please see the following: ATE: Quest: Be a Message Master!, 102-103 Visual Literacy Connection: How do wave patterns move?, 120-121 Literacy Connection: Draw Conclusions, 155</p>
<p>Instructional resources reflect current best practices in the field of science instruction (pedagogy).</p>	<p>Students and teachers will benefit from Savvas' (formerly Pearson) experience in developing instructional materials informed by a strong research base. Savvas is the only major publisher that consistently invests in outside validation studies that meet the rigorous criteria of the What Works Clearinghouse. A research team, including educational research methodologists, has been working with Savvas for eight years to integrate scientific research practices into the development of our curricula.</p> <p>In <i>Elevate Science</i>, that research is represented in the topic organization which is built around problem-based learning scenarios called Quests. These PBLs provide context for student learning and actively engages the learner in finding solutions to the presented real-world topic challenge. To support engagement and address multiple learning modalities, the digital platform hosts a variety of interactive multimedia resources (video, simulations, interactivities, virtual labs) that further student understanding of the core science concepts. These resources reflect the best practices in elementary science instruction, utilizing a blend of print and digital media for student learning.</p>

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<p>Materials consistently provide development and application of concepts and scientific practices through the exploration and use of appropriate technologies.</p>	<p>Flexible classroom management tools within the digital platform provide freedom and control to use a digital, print, or blended format. The inquiry activities in <i>Elevate Science</i> are designed to engage students in hands-on science—making observations, planning investigations, designing solutions and analyzing evidence. Students work like scientists and engineers to understand authentic, real-world phenomena through a variety of lab experiences designed for specific learning objectives. The digital platform provides powerful data gathering interactive experiences to engage students in the exploration of the science concepts. These resources can be used for personalizing learning through data-driven instruction. The assessment resources include technology-enhanced items that allow students to develop and apply concepts and scientific practices and experience next generation assessment formats.</p>
<p>Resource provides opportunities to engage in a meaningful scientific investigation of a watershed (stream or bay) as defined by the Virginia Department of Education (MWEE)</p>	<p><i>Elevate Science</i> provides opportunities for students to engage in the types of investigative essential experiences as described by the Chesapeake MWEE. The student investigations promote active, student-focused questioning, the collection and analysis of self-generated data, and gets them involved in going out-of-doors to explore the natural environment. In several topics in each grade, the Quest real-world problem reflects an environmental theme and encourages students to be active in the promotion of community-based solutions.</p> <p>For examples, please see the following: ATE: Show what you know, 151 How does water affect landforms?, 192</p>

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<p>Resource provides opportunities for students to engage in computational thinking by solving problems that logically organize and classify data and use a series of steps (algorithms).</p>	<p><i>Elevate Science</i> puts students on a path toward success in science learning by making science relevant and meaningful for today’s students and teaching them to work similarly to actual scientists and engineers to understand real-world phenomena. Scientific inquiry, investigating phenomena, computational thinking, problem-solving and analysis and application of core concepts are emphasized as a goal for all students.</p> <p>In many of the investigations where students are gathering data, they engage in grade appropriate computational thinking exercises as a way to help interpret and analyze the data they have generated. Topics include Math toolboxes and Math Connection features that highlight opportunities for students to connect their science learning with mathematical practice.</p> <p>For examples, please see the following: ATE: STEM Math Connection: Relative Distance, 33 Math Toolbox, 223 STEM Math Connection: Canyonlands, 255</p>
<p>Resources provide opportunities for students to use technology to learn science content and science process skills.</p>	<p>Our innovative technology-enhanced items, performance-based assessments, and adaptive learning programs help measure and build key 21st-century skills in learners of all abilities—including the elements of conceptual understanding, basic and procedural skills, and problem solving. Virtual labs, interactive simulations and videos, along with an interactive student e-text all provide opportunities for students to use technology to learn and practice science concepts and skills.</p> <p>For examples, please see the following: CT: Realize™ Digital Resources: Energy and Motion >Lesson 1, Energy, Speed, and Moving Object>Video: Energy, Speed, and Moving Objects >Lesson 1, Energy, Speed, and Moving Object>Interactivity: Skateboarding Energy >Lesson 1, Energy, Speed, and Moving Object>Virtual Lab: Propeller Speed and Thrust</p>

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<p>Resources provide opportunities for students to explore advances in technology and scientific discovery that have occurred since your last publication date.</p>	<p>The intuitive digital path is more than an ancillary to Elevate Science; it is a vital component of our approach to learning that places the student at the center of the process of discovery. The digital path enables students to explore science in a way that emphasizes their own quest for knowledge and creativity in exploring and organizing the material and explore advances in technology and scientific discovery that develop beyond publication of printed materials. uEngineer It! investigations and STEM activities encourage students to research and make use of current advances in science and apply those to their Quest solutions.</p>
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Resources Support the LCPS Mission, Core Beliefs and Strategic Goals https://bit.ly/2VV3IDB	
Criteria	Correlation: Must address the identified need. When appropriate, provide examples in the resource. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
<p>Instructional resources support the potential for integration into Project-Based Learning (PBL).</p>	<p>Phenomena-Based Quests: Each topic engages students with a phenomena-based learning scenario called a ‘Quest’. The Quest contains a real-world problem for them to solve as they explore the science concept and develop the necessary science inquiry skills. An Essential Question opens the topic and puts students on that path toward mastering the topic content. Students investigate the phenomena and use their experiences, e-text photos, diagrams, and other visual elements to apply them to the concepts they are learning. The scaffolded labs throughout the topic introduce core ideas in context as students ‘experience’ science while they gain new knowledge in the hands-on setting.</p> <p>For examples, please see the following: ATE: Topic 1 Quest: Energy Changes in Collisions, 2-3 Topic 2 Quest: Power from the People, 52-53 Topic 3 Quest: Be a Message Master!, 102-103 Topic 4 Quest: Does X Mark the Spot? That’s Up to You!, 152-153 Topic 5 Quest: Protect the City! Hazard Incoming!, 204-205 Topic 6 Quest: Dig for the Truth, 244-245 Topic 7 Quest: Let Plants and Animals Inspire You!, 278-279 Topic 8 Quest: Make a Human Body Road Map, 336-337</p>
<p>Instructional resources provide opportunities for Personalized Learning and the exercise of student voice and choice.</p>	<p><i>Elevate Science</i> offers comprehensive differentiation instruction and intervention support to address the needs of all learners—whether they are struggling, on-level, or advanced learners. This support provides system-driven opportunities to personalize learning for students and a library of resources to support the teacher in personalizing instruction and allowing students to exercise their voice and choice. Teachers can individualize the instruction by assigning different resources to either individual students or group of students. Many of the uInvestigate activities give students the opportunity to develop their own plans to investigate the lesson question.</p>

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<p>Instructional resources include grade level performance assessments that are formative and summative.</p>	<p>Learning outcomes are at the heart of each assessment we create, including those in our science textbooks. Our innovative technology-enhanced items, performance-based formative and summative assessments, and adaptive learning programs help measure and build key 21st-century skills in learners of all abilities—including the elements of conceptual understanding, basic and procedural skills, and problem solving. In print assessments includes lesson checks, investigation checks, and end-of-topic assessments. There are two types of performance assessments at the end of each topic- the Evidence-based assessment and the uDemonstrate investigation. Both of these assessments require students to demonstrate understating of topic concepts through its application in a new setting.</p> <p>For examples, please see the following: ATE: Evidence-Based Assessment, 198-199 uDemonstrate Lab: How can you identify minerals?, 200-201</p>
<p>Instructional resources support individual, small group, and whole class learning opportunities and collaboration.</p>	<p><i>Elevate Science</i> provides opportunities for students to work individually, in small, cooperative groups and engage in science and engineering practices as a whole class. The Teacher Edition provides suggested grouping guidelines for the different hands-on activities, and other student interactions. The digital platform allows for group collaboration and the sharing of ideas through the Google integration tools.</p>
<p>Instructional resources consistently include content promoting use of critical thinking skills and problem-solving approaches and provide opportunities for students to use critical thinking skills and problem solving through a process of sustained inquiry.</p>	<p><i>Elevate Science</i> includes a variety of opportunities for students to practice and demonstrate critical-thinking and problem-solving skills. The uEngineer It activities highlight open-ended problem solving. The digital interactives encourage critical-thinking and analysis. The performance-based tasks, research projects, inquiry investigations, labs, open-ended response questions, multiple choice questions, drag-and-drop questions, and other content that provides opportunities for students to use critical thinking and problem solving through a process of sustained inquiry.</p>

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<p>Materials consistently promote the introduction of concepts through concrete experiences.</p>	<p>Elevate Science is designed for students to ‘experience’ science and not just read about it. Every lesson begins with the hands-on activity called uInvestigate, giving them concrete experiences to engage their minds and make science real. Up-to-date, accurate, themed topics are used to build knowledge in each unit, emphasizing the common characteristics of a unifying, relevant concept and promoting in-depth understanding through daily lessons.</p> <p>For examples, please see the following: ATE: uConnect Lab: How are energy resources used?, 54 uInvestigate Lab: How can a potato provide energy to a light bulb?, 57 STEM uInvestigate Lab: How does a windmill capture wind energy?, 75</p>
<p>Instructional resources provide opportunities for students to apply learning in real-world situations.</p>	<p>The Quest challenge uses real-world challenges to set a context for student learning. Visual analogies connect difficult concepts to real world issues to help students better understand the concepts presented.</p> <p>For examples, please see the following: ATE: Topic 2 Quest: Human Uses of Energy Quest Kickoff: Power from the People, 52-53 Quest Check-In: Human Power, 63 Quest Check-In Lab: How can you use a battery to produce motion?, 72 Quest Check-In Lab: How can the sun make a motor work?, 80 Quest Check-In: Impact Inspections, 92 Quest Findings: Power from the People, 92</p>
<p>Materials consistently provide the appropriate level of abstraction and appropriate practical/real-life examples.</p>	<p>A rigorous curriculum offers students equal opportunities to develop understanding, practice key concepts and skills, and apply these concepts and skills in real-world or abstract situations. <i>Elevate Science</i> includes engaging real-life visuals, a write-in student text with practical examples and a consistent organization that aids student learning.</p>
<p>Materials consistently provide sufficient, grade-level appropriate examples of applications of concepts to promote depth of understanding.</p>	<p>Materials present current, scientifically accurate, and grade-appropriate scientific information, phenomena, and representations. Outside fact-checkers verify data used and authenticity of identified facts. A full research bibliography is available showing the research reviewed and sources cited that informed development of <i>Elevate Science</i>.</p>

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Resources are Inclusive, Accessible, Culturally Responsive, and Free of Bias	
Criteria	<p>Correlation: Must address the identified need. When appropriate, provide examples in the resource. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)</p>
<p>Instructional resources represent women, people of different ages, religious, ethnic and racial minorities and persons with disabilities in many different environments and occupations, and in the roles of current science career fields.</p>	<p>Savvas systematically develops its educational products and vets its partnership products by implementing criteria and standards that reflect multiethnic, multiracial, and multicultural perspectives. Over the years, we have worked with numerous experts and consultants from universities and other educational institutions to provide a broad perspective in our educational materials. While creating high-quality educational content, our standards are aimed at the following:</p> <ul style="list-style-type: none"> • Integrating multicultural experiences into program content so students see themselves as part of what is valued in the school’s curriculum • Fostering self-esteem for greater academic achievement • Empowering students to act effectively in a democratic society and reach their full potential • Reducing prejudice by showing multicultural friendships and people from different backgrounds, working, playing, and living together <p>Our educational materials consider the needs of all students and are designed to provide a fair, balanced representation of various cultural groups and members, including racial, ethnic and religious groups; males and females; older people; and people with disabilities.</p> <p>For examples, please see the following: ATE: Quest Kickoff: Energy Changes in Collision, 2 Career Connection: Intelligence Analyst, 143 Quest Kickoff: Dig for the Truth, 244</p>
<p>Instructional resources are free from stereotypes which assign a rigid set of characteristics to all members of a group.</p>	<p><i>Elevate Science</i> considers the needs of all students, is free from stereotypes, and is designed to provide a fair, balanced representation of various cultural groups and members, including racial, ethnic and religious groups; males and females; older people; and people with disabilities.</p>

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<p>Instructional resources provide teachers with strategies for meeting the needs of Advanced Learners, English Learners and Special Education students.</p>	<p><i>Elevate Science</i> instructional materials provide LCPS teachers with research-based social and emotional learning curriculum and materials for all learners, including students who receive special education services and students who receive gifted and talented services. Instructional materials also provide differentiating instruction based on diverse learners (i.e., sections provide scaffolds for ELLs and students with disabilities, teacher guidance in the introductory section, etc.) and scaffolded tools for remediation (for example, appendix resources for writing and editing, teacher guidance for assigning reading, etc.).</p> <p>For examples, please see the following: ATE: Differentiated Instruction, 61 ELD Support: Reading, 141 Differentiated Instruction, 207</p>
<p>Instructional resources include accessibility features and tools for Advanced Learners, English Learners and Special Education students.</p>	<p>Instructional materials provide LCPS students with research-based social and emotional learning curriculum and materials for all learners, including students who receive special education services and students who receive gifted and talented services. Instructional materials also provide differentiating instruction based on diverse learners (i.e., sections provide scaffolds for ELLs and students with disabilities, teacher guidance in the introductory section, etc.) and scaffolded tools for remediation (for example, appendix resources for writing and editing, teacher guidance for assigning reading, etc.).</p> <p>For examples, please see the following: CT: Realize™ Digital Resources: Human Uses of Energy >Lesson 4, Environmental Impacts of Energy Use>Video: Environmental Impacts of Using Energy >Lesson 4, Environmental Impacts of Energy Use>uInvestigate Lab: Why is oil cleanup so hard? >Lesson 4, Environmental Impacts of Energy Use>Virtual Lab: The Best Power for the Place >Lesson 4, Environmental Impacts of Energy Use>Interactivity: Human Activity and the Environment</p>

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<p>Instructional resources include Tier 2 and Tier 3 vocabulary necessary to support English Learners and Special Education students.</p>	<p>LCPS can be confident in high-quality instructional materials and services that are developed for quality, efficacy, and usability, and are based on critical foundational research and proven classroom results. <i>Elevate Science</i> was developed to meet the needs of a diverse, high-need student population, including economically disadvantaged students, underrepresented racial/ethnic groups, and large populations of ELLs.</p>
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2018 Grade Four Science Standards of Learning	
STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
<p>4.2 The student will investigate and understand that plants and animals have structures that distinguish them from one another and play vital roles in their ability to survive. Key ideas include</p>	
<p>a) the survival of plants and animals depends on photosynthesis;</p>	<p>ATE Visual Literacy Connection: What are some functions of internal leaf structures?, 286-287 Internal Structures and Functions of Plants, 288</p> <p>CT: Realize™ Digital Resources: Structures and Functions >Lesson 1, Internal Structures and Functions of Plants>Video: Internal Structures and Functions of Plants;>Quiz: Internal Structures and Functions of Plants >Lesson 3, Internal Structures and Functions of Animals>Interactivity: Eating Food and Making Food</p>

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<p>b) plants and animals have different structures and processes for obtaining energy; and</p>	<p>ATE Visual Literacy Connection: What are some functions of internal leaf structures?, 286-287 Internal Structures and Functions of Plants, 288 uInvestigate Lab: How can you compare the stomachs of cows and dogs?, 301 Quest Check-In: Lobster Claws, 314 Animal Responses to Smell, 320</p> <p>CT: Realize™ Digital Resources: Structures and Functions >Lesson 1, Internal Structures and Functions of Plants>Video: Internal Structures and Functions of Plants >Lesson 3, Internal Structures and Functions of Animals>Interactivity: Eating Food and Making Food >Lesson 4, External Structures and Functions of Animals>Interactivity: External Structures of Plants and Animals</p>
<p>c) plants and animals have different structures and processes for creating offspring.</p>	<p>ATE: uInvestigate Lab: What parts are inside a flower?, 283 Internal Structures and Functions of Plants, 285 Visual Literacy Connection: Which structures do flowering plants use to reproduce?, 296-297 Adaptations of Flowers, 298 Animal Characteristics, 313</p> <p>CT: Realize™ Digital Resources: Structures and Functions >Lesson 1, Internal Structures and Functions of Plants>Video: External Structures and Functions of Plants;>Interactivity: The Structure of Flowers >Lesson 4, External Structures and Functions of Animals>Interactivity: External Structures of Plants and Animals</p>

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2018 Grade Four Science Standards of Learning	
STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
<p>4.3 The student will investigate and understand that organisms, including humans, interact with one another and with the nonliving components in the ecosystem. Key ideas include</p>	
<p>a) interrelationships exist in populations, communities, and ecosystems;</p>	<p>Please see <i>Elevate Science</i>, Grade 5, Topic 9: Matter and Energy in Ecosystems, Lesson 1: Ecosystems and Lesson 2: Organisms Within Ecosystems</p>
<p>b) food webs show the flow of energy within an ecosystem;</p>	<p>Please see <i>Elevate Science</i>, Grade 5, Topic 9: Matter and Energy in Ecosystems, Lesson 2: Organisms Within Ecosystems and Lesson 4: Matter and Energy Transfer Within Ecosystems</p>
<p>c) changes in an organism’s niche and habitat may occur at various stages in its life cycle; and</p>	<p>Please see <i>Elevate Science</i>, Grade 5, Topic 9: Matter and Energy in Ecosystems, Lesson 3: Change Within Ecosystems</p>
<p>d) classification can be used to identify organisms.</p>	<p>ATE uInvestigate Lab: How are leaf coverings different?, 293 Stems and Their Coverings, 295 Visual Literacy Connection: How do lungs and gills compare?, 304-305 Other External Structures of Animals, 312</p> <p>CT: Realize™ Digital Resources: Structures and Functions >Lesson 4, External Structures and Functions of Animals>Video: External Structures and Functions of Animals</p>

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2018 Grade Four Science Standards of Learning	
STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
4.4 The student will investigate and understand that weather conditions and phenomena affect ecosystems and can be predicted. Key ideas include	
a) weather measurements create a record that can be used to make weather predictions;	Supporting Content: ATE: Predict Natural Hazards, 230 Also see <i>Elevate Science</i> , Grade 3, Topic 3: Weather, Lesson 2: Seasonal Weather Changes.
b) common and extreme weather events affect ecosystems; and	ATE: uInvestigate Lab: How does snow sliding quickly down a mountain impact people?, 219 Visual Literacy Connection: How much rainfall is enough?, 220-221 Blizzards, Hurricanes, and Tornadoes, 222 Landslides and Avalanches, 223 Short-Term Effects of Hazards, 228 Evidence-Based Assessment, 238-239 CT: Realize™ Digital Resources: Earth' Natural Hazards >Lesson 2, Weather Hazards>Video: Weather Hazards;>Interactivity: Catastrophic Weather Events
c) long term seasonal weather trends determine the climate of a region.	Please see <i>Elevate Science</i> , Grade 3, Topic 4: Climate, Lesson 1: Climates and Lesson 3: World Climates.

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STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
4.5 The student will investigate and understand that the planets have characteristics and a specific place in the solar system. Key ideas include	
a) planets rotate on their axes and revolve around the sun;	Please see <i>Elevate Science</i> , Grade 5, Topic 6: Solar System, Lesson 2: Inner Solar System and Lesson 3: Outer Solar System. Also see Topic 7: Patterns in Space, Lesson 2: Earth’s Movements in Space.
b) planets have characteristics and a specific order in the solar system; and	Please see <i>Elevate Science</i> , Grade 5, Topic 6: Solar System, Lesson 2: Inner Solar System and Lesson 3: Outer Solar System.
c) the sizes of the sun and planets can be compared to one another.	Please see <i>Elevate Science</i> , Grade 5, Topic 6: Solar System, Lesson 2: Inner Solar System and Lesson 3: Outer Solar System.

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STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
4.6 The student will investigate and understand that there are relationships among Earth, the moon, and the sun. Key relationships include	
a) the motions of Earth, the moon, and the sun;	Please see <i>Elevate Science</i> , Grade 5, Topic 7: Patterns in Space, Lesson 2: Earth’s Movements in Space and Lesson 3: Patterns Over Time.
b) the causes for Earth’s seasons;	Please see <i>Elevate Science</i> , Grade 5, Topic 7: Patterns in Space, Lesson 2: Earth’s Movements in Space,
c) the causes for the four major phases of the moon and the relationship to the tide cycles; and	Please see <i>Elevate Science</i> , Grade 5, Topic 4: Earth’s Water, Lesson 3: Earth’s Ocean. Also see Topic 7: Patterns in Space, Lesson 2: Earth’s Movements in Space and Lesson 3: Patterns Over Time.
d) the relative size, position, age and makeup of Earth, the moon, and the sun.	Please see <i>Elevate Science</i> , Grade 5, Topic 6: Solar System, Lesson 1: Brightness of the Sun and Other Stars, Lesson 2: Inner Solar System, and Lesson 3: Outer Solar System

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STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
4.7 The student will investigate and understand that the ocean environment has characteristics. Key characteristics include	
a) geology of the ocean floor;	<p>ATE: Ring of Fire, 169 Visual Literacy Connection: How can a physical map help me locate different landforms?, 170-171 Patterns Under the Ocean, 172 Seafloor Patterns, 172</p> <p>CT: Realize™ Digital Resources: Earth's Features >Lesson 2, Patterns of Earth's Features>Video: Patterns of Earth's Features</p>
b) physical properties and movement of ocean water; and	Please see <i>Elevate Science</i> Grade 5, Topic 4: Earth's Water, Lesson 3: Earth's Ocean.
c) interaction of organisms in the ocean.	Please see <i>Elevate Science</i> Grade 5, Topic 9: Matter and Energy in Ecosystems, Lesson 2, Organisms Within Ecosystems.

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STANDARD	Correlation: Must address both the standards and the curriculum framework. Use page number and ATE for Annotated Teacher Edition or CT for Core Technology. (Identify no more than 8 correlations.)
4.8 The student will investigate and understand that Virginia has important natural resources. Key resources include	
a) watersheds and water;	<p>ATE: Visual Literacy Connection: Is renewable energy all around?, 76-77 Hydropower, 78 Virginia Resource Map, 162</p> <p>CT: Realize™ Digital Resources: Human Uses of Energy Lesson 3, Renewable Energy Sources>Video: Renewable Energy Sources;>Interactivity: Natural Resources</p>
b) plants and animals;	<p>Supporting Content: ATE: Visual Literacy Connection: Is renewable energy all around?, 76-77 Renewable Fuel, 78 Resource Maps, 162 Virginia Resource Map, 162</p> <p>CT: Realize™ Digital Resources: Human Uses of Energy Lesson 3, Renewable Energy Sources>Interactivity: Natural Resources Please see also Elevate Science, Grade 5, Topic 5: Human Impacts on Earth’s Systems, Lesson 1: Earth’s Natural Resources</p>

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<p>c) minerals, rocks, and ores; and</p>	<p>Supporting Content: ATE: Nuclear Fuel, 71 Resource Maps, 162 Engineering Connection, 174 Minerals, 180</p> <p>Also see <i>Elevate Science</i>, Grade 5, Topic 5: Human Impacts on Earth's Systems, Lesson 1: Earth's Natural Resources.</p>
<p>d) forests, soil, and land.</p>	<p>Supporting Content: ATE: Visual Literacy Connection: Is renewable energy all around?, 76-77 Renewable Fuel, 78 Resource Maps, 162 Virginia Resource Map, 162 Soil, 181</p> <p>CT: Realize™ Digital Resources: Human Uses of Energy Lesson 3, Renewable Energy Sources>Interactivity: Natural Resources</p> <p>Also see <i>Elevate Science</i>, Grade 5, Topic 5: Human Impacts on Earth's Systems, Lesson 1: Earth's Natural Resources.</p>