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Elevate Science Modules
Grade 6-8, ©2019

To the

Minnesota
2019 Academic Standards in Science
Grade 7

Prepared by Savvas Learning Company, formerly Pearson K12 Learning

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Introduction

This document demonstrates how ***Elevate Science ©2019*** meets the Minnesota K-12 Academic Standards in Science, Grades 6-8. Correlation page references are to the Student and Teacher's Editions and cited at the page level. Realize digital courseware is cited using a pathway for each asset (each ">" indicates one click).

Savvas Learning Company LLC is proud to introduce ***Elevate Science*** Middle Grades – where exploration is the heart of science! Designed to address the rigors of new science standards, students will experience science up close and personal, using real-world, relevant phenomena to solve project-based problems. Our newest program prepares students for the challenges of tomorrow, building strong reasoning skills and critical thinking strategies as they engage in explorations, formulate claims, and gather and analyze data that promote evidence-based arguments. The blended print and digital curriculum covers all Next Generation Science Standards at every grade level.

Elevate Science helps teachers transform learning, promote innovation, and manage their classroom.

Transform science classrooms by immersing students in active, three-dimensional learning.
Elevate Science engages students with real-world tasks, open-ended Quests, uDemonstrate performance-based labs, and in the engineering/design process with uEngineer It! investigations.

- A new 3-D learning model enhances best practices.
- Engineering-focused features infuse STEM learning.
- Phenomena-based activities put students at the heart of a Quest for knowledge.

Innovate learning by focusing on 21st century skills.
Students are encouraged to think, collaborate, and innovate! With ***Elevate Science***, students explore STEM careers, experience engineering activities, and discover our scientific and technological world. The content, strategies, and resources of Elevate Science equip the science classroom for scientific inquiry and science and engineering practices.

- Problem-based learning Quests put students on a journey of discovery.
- STEM connections help integrate curriculum.
- Coding and innovation engage students and build 21st century skills.

Manage the classroom with confidence.
Teachers will lead their class in asking questions and engaging in argumentation. Evidence-based assessments provide new options for monitoring student understanding.

- Professional development offers practical point-of-use support.
- Embedded standards in the program allow for easy integration.
- ELL and differentiated instruction strategies help instructors reach every learner.
- Interdisciplinary connections relate science to other subjects.

Designed for today's classroom, preparing students for tomorrow's world. ***Elevate Science*** promises to:

- Elevate thinking.
- Elevate learning.
- Elevate teaching.

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LS: Ecosystems: Interactions, Energy, and Dynamics	
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2.2 Using mathematics and computational thinking	
2.2.1 Students will be able to use mathematics to represent physical variables and their relationships; compare mathematical expressions to the real world; and engage in computational thinking as they use or develop algorithms to describe the natural or designed worlds.	
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3.0 Developing possible explanations of phenomena or designing solutions to engineering problems	
3.1 Developing and using models	
3.1.1 Students will be able to develop, revise, and use models to represent their understanding of phenomena or systems as they develop questions, predictions and/or explanations and communicate ideas to others.	
LS: From Molecules to Organisms: Structures and Processes	
7L.3.1.1.1 Develop and use a model to describe the function of a cell as a whole and describe the way cell parts contribute to the cell's function. (P: 2, CC: 6, CI: LS1)	**SE/TE:** **Systems, Reproduction, and Growth** Model It!: Bacterial Cell Structures, 30 Plant Cell Features, Figure 2, 40 Connect It!, 72 Quest Kick-Off, 60-61 Figure 2: Plant Cell, 74 Plant and Animal Cell Differences, Questions 1-3, 74 Figure 2: Animal Cell, 75 Figure 3: The Control Center of the Cell, 76 Model It!: The Substance of Life, 77 Figure 5: The Right Cell for the Job, 79 Quest Check-In: SEP Develop Models, 81 A Selective Barrier, 84 Model It!: Question 2: SEP Develop Models, 89 Evidence-Based Assessment, 104-105 **Realize™ Digital Resources:** **Systems, Reproduction, and Growth** **The Cell System** >Lesson 1, Structure and Function of Cells>uInvestigate Lab: Observing Cells; >Interactivity: A Strange Specimen >Lesson 2, Cell Structures>Inquiry Warm-Up Lab: How Large Are Cells?; >uInvestigate Lab: Comparing Cells; >Interactivity: Build a Cell; >Interactivity: Structure and Function Junction; >Interactivity: Specialized Cells; >Quest Check-In Lab: Make a Cell Model >Lesson 3, Obtaining and Removing Materials>Interactivity: Cell Transport; >uInvestigate Lab: Egg-speriment with a Cell; >Interactivity: Entering and Leaving the Cell

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7L.3.1.1.2 Develop and use a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism. (P: 2, CC: 5, CI: LS1) Emphasis is on describing that molecules are broken apart and put back together and that in this process, energy is released. Examples may include models of sugar breakdown into molecules of glucose that power our bodies, or protein breakdown into amino acids that are later reassembled to create body structures.	**SE/TE:** **Relationships Within Ecosystems** Model It!, 70-73 Figure 4: Photosynthesis: Stages 1 and 2, 8 Figure 5: The Big Picture of Photosynthesis, 9 Expressing Photosynthesis, 10 Figure 6: Photosynthesis Is the Key, 10 uEngineer It!: Engineering Artificial Photosynthesis, 13 Releasing Energy, 18 Model It!: Develop Models, 19 Figure 3: Related Processes, 20 Math Toolbox: Conservation of Matter in the Balance, 20 Lesson 2 Check: Question 2 SEP Develop Models, 22 Topic 1 Review and Assess, #8: SEP Develop Models, 24 uDemonstrate Lab: Cycling Energy and Matter, 28-31 **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Cell Processes** >Lesson 1, Photosynthesis>uInvestigate Lab: Energy from the Sun >Lesson 2, Cellular Respiration>Inquiry Warm-Up Lab: Cellular Respiration; >uInvestigate Lab: Exhaling Carbon Dioxide; >Interactivity: Making Energy for Cells; >Quest Check-In>Interactivity: The Importance of Cells

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LS: Ecosystems: Interactions, Energy, and Dynamics	
7L.3.1.1.3 Develop and use a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. (P: 2, CC: 5, CI: LS2) Emphasis is on describing the conservation of matter and flow of energy into and out of various ecosystems.	**SE/TE:** **Relationships Within Ecosystems** uEngineer It!: Engineering Artificial Photosynthesis, 13 Life and Death in an Alaskan Stream, Figure 2, 48-49 Figure 3: Food Chain, 50 Model It!: Food Web, 51 Figure 5: Energy Pyramid, 52 Math Toolbox: Relationships in an Energy Pyramid, 53 **(Continued)** Connect It!, 56-57 Figure 3: The Water Cycle, 59 Figure 4: The Carbon and Oxygen Cycles, 60-61 Figure 5: Nitrogen Cycle, 62 Lesson 3 Check, #3, 64 Evidence-Based Assessment, 68-69 uDemonstrate Lab: Last Remains, 70-73 Interactions Between Cycles of an Ecosystem, 114 **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Ecosystems** >Lesson 2, Energy Flow in Ecosystems>uInvestigate Lab: Observing Decomposers; >Video: Energy Flow Ecosystems; >Virtual Lab: Chesapeake Bay Ecosystem Crisis; >Interactivity: A Changing Ecosystem; >Quest Check-In>Interactivity: Nutrients and Aquatic Organisms >Lesson 3, Cycles of Matter>uInvestigate Lab: Following Water; >Interactivity: Cycles of Matter; >Interactivity: Earth's Recyclables; >Quest Check-In>Interactivity: Matter and Energy in a Pond >Topic Close>Quest Findings>Interactivity: Reflections on a Pond

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LS: Heredity: inheritance and Variation of Traits	
7L.3.1.1.4 Develop and use a model to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. (P: 2, CC: 2, CI: LS3) Emphasis is on using models, such as Punnett squares, diagrams, and simulations to describe the cause and effect relationship of gene transmission from parent(s) to offspring and resulting genetic variations.	**SE/TE:** **Diversity of Life** Making a Punnett Square, 10-11 Model It!: Develop Models, 20 Figure 5: Swapping Genetic Material, 21 Figure 7: Meiosis versus Mitosis, 22-23 Lesson 2 Check, #1-#2, 24 Lesson 4 Check, #5, 47 uDemonstrate Lab: Make the Right Call, 62-65 **Systems, Reproduction, and Growth** Model It!: Develop Models, 184 Model It!: Apply Concepts, 187 Topic 4 Review and Assess, #1, #5, 224-225 **Realize™ Digital Resources:** **Diversity of Life** **Genes and Heredity** >Lesson 1, Patterns of Inheritance>Inquiry Warm-Up Lab: How Tall Is Tall?; >Interactivity: Making Copies; >uInvestigate Lab: Observing Pistils and Stamens; Interactivity: Offspring Season; Quest Check-In>Interactivity: An Apple Lesson >Lesson 2, Chromosomes and Inheritance>uInvestigate Lab: Chromosomes and Inheritance; >Interactivity: Colorful Chromosomes; >Quest Check-In>Interactivity: About Those Chromosomes >Topic Close>Quest Findings>Reflect on Funky Fruits **Systems, Reproduction, and Growth** **Reproduction and Growth** >Topic Launch>uConnect Lab: To Care or Not to Care >Lesson 1, Patterns of Reproduction>Interactivity: Animal Reproduction; >Interactivity: Inheritance of Traits; >uInvestigate Lab: Is It All in the Genes? >Interactivity: Twin Studies

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3.2 Constructing explanations and designing solutions	
3.2.1 Students will be able to apply scientific principles and empirical evidence (primary or secondary) to construct causal explanations of phenomena or identify weaknesses in explanations developed by themselves or others.	
LS: From Molecules to Organisms: Structures and Processes	
7L.3.2.1.1 Construct an explanation based on evidence for how environmental and genetic factors influence the growth of organisms and/or populations. (P: 6, CC: 2, CI: LS1, ETS2) Examples of environmental factors may include local environmental conditions such as availability of food, light, space, and water. Examples of genetic factors may include large breed cattle and species of grass affecting growth of organisms. Examples of evidence may include drought decreasing plant growth, fertilizer increasing plant growth, different varieties of plant seeds growing at different rates in different conditions, and fish growing larger in large ponds than they do in small ponds. Examples of human activity may include agricultural practices, phosphorus and nitrogen loading in lakes, hybridization and breeding practices.	**SE/TE:** **Systems, Reproduction, and Growth** The Essential Question, 179 Quest Kickoff: How can we reduce the impact of construction on plants and animals?, 180-181 Relate Text to Visuals, 189 Genes and the Environment, 189-190 Lesson 2 Quest Check-In, 200 Connect It!, 212-213 Plant Responses and Growth, 214-216 Plan It!: Water Needs and Plant Growth, 216 Figure 4, Placental Mammal Development: Draw Conclusions, 217 Math Toolbox: Human Malnutrition and Height, 220 Lesson 4 Check, 221 Lesson 4 Quest Check-In, 221 Case Study: Warmer Waters, Fewer Fish, 222-223 Topic 4 Review and Assess: #16. #17, 225 Evidence-Based Assessment, 226-227 Quest Findings, 227 uDemonstrate Lab: Clean and Green, 228-231 **Realize™ Digital Resources:** **Systems, Reproduction, and Growth** **Reproduction and Growth** >Topic Launch>uConnect Lab: To Care or Not to Care; >Quest Kickoff>Video: Construction Without Destruction >Lesson 2, Plant Structures for Reproduction>Quest Check-In>Interactivity: Protect the Plants >Lesson 3, Animal Behaviors for Reproduction>Quest Check-In>Interactivity: The Mating Game >Lesson 4, Factors Influencing Growth>Interactivity: Growing and Thriving;

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7L.3.2.1.2 Construct an explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms. (P: 6, CC: 2, CI: LS1) Emphasis of the core idea is on plants and algae using energy from light to make sugars (food for themselves and as an energy source for other organisms) from carbon dioxide (from air) and water; and in the process release oxygen.	**SE/TE:** **Relationships Within Ecosystems** Energy From the Sun, Literacy Connection, 6 Model It!: Trace Energy to the Source, 7 Expressing Photosynthesis, 8-9, 10-11 Lesson 1 Check, 12 uEngineer It!: Engineering Artificial Photosynthesis, 13 Case Study: Florida's Vital Seagrass in Peril, 14-15 Figure 3: Related Processes, Questions 1-2, 20 Lesson 2 Check, 22 Topic Review and Assess, 24 Evidence-Based Assessment, 26-27 Quest Findings, 27 uDemonstrate Lab: Cycling Energy and Matter, 28-31 **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Cell Processes** >Lesson 1, Photosynthesis>Interactivity: Making Food for Cells; >Video: Photosynthesis; >uInvestigate Lab: Energy from the Sun; >Interactivity: Flower Food; Quest Check-In>Interactivity: Photosynthesis in the Greenhouse >Lesson 2, Cellular Respiration>Quest Check-In>Interactivity: Cycling of Matter in the Greenhouse >Topic Close>Quest Findings>Interactivity: Reflect on the Problem in the Greenhouse

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LS: Evolution: Unity and Diversity	
7L.3.2.1.3 Apply scientific ideas to construct an explanation for the anatomical similarities and differences among modern organisms and between modern and fossil organisms to infer evolutionary relationships. (P: 6, CC: 1, CI: LS4) Emphasis is on explanations of the evolutionary relationships among organisms in terms of similarity of differences of the gross appearance of anatomical structures.	**SE/TE:** **Systems, Reproduction, and Growth** Quest Kick-Off, 2-3 Evolution and Classification, 22-23 Lesson 2 Check, 24 **Diversity of Life** Figure 4: Reading the Past, Questions 1-2, 74 Reading Check: Summarize Text, 74 Figure 5: Armored Animals: Questions 1-2, 75 Lesson 1 Check, Question 2 , 79 Question it: Interpret Diagrams, 103 Evolution of the Modern Elephant, 103 Comparisons of Anatomy, 104-105 Lesson 4 Check, 109 Case Study: Could Dinosaurs Roar?, 110-111 Genetic Evidence for a Common Ancestor, 114-115 Extraordinary Science: DNA, Fossils, and Evolution, 121 Topic 2 Review and Assess: #16, #17, 123 uDemonstrate Lab: A Bony Puzzle, 126-129 **Realize™ Digital Resources:** **Diversity of Life** **Natural Selection and Change Over Time** >Topic Launch>uConnect Lab: Walking Whales >Lesson 4, Evidence in the Fossil Record>Document: Choose the Right Organism; >uInvestigate Lab: Finding Proof; >Interactivity: Along the Canyon Wall; >Interactivity: Tiny Clues; Interactivity: Legs, Arms, Wings, and Flippers; >Video: Evidence in the Fossil Record; >Interactivity: Fossils Around the World >Lesson 5, Other Evidence of Evolution>Interactivity: Tree of Life; >uInvestigate Lab: Evidence of Evolution

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7L.3.2.1.4 Construct an explanation based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment. (P: 6, CC: 2, CI: LS4) Emphasis is on using simple probability statements and proportional reasoning to construct explanations.	**SE/TE:** **Systems, Reproduction, and Growth** Genes and the Environment, 189-190 **Diversity of Life** Case Study: Cephalopods Special Edition, 14-15 Reading Check: Distinguish Facts, 43 Topic 1 Review and Assess: #15, 58-59 Evidence-Based Assessment, 60-61 Connect It!, 70 Question it! We Got the Beak!, 77 Figure 8, Galapagos Finches: Interpret Diagrams, 77 Lesson 1 Check, 79 Connect It!, 80 Model it! Natural Selection in Action, 85 Lesson 2 Check, 88 Connect It!, 90-91 Reading Check, 93 Model It!: Mimicry in Coevolution, 96 Lesson 3 Check, 97 Topic 2 Review and Assess, 122-123 **Realize™ Digital Resources:** **Diversity of Life** **Natural Selection and Change Over Time** >Lesson 1, Early Study off Evolution>Inquiry Warm-Up Lab: Flowery Traits, Seedy Variations; >Interactivity: Animal Feeding Adaptations; >Video: Early Study of Evolution; >Interactivity: Mystery on the Galapagos Islands; >uInvestigate Lab: How Do Species Change Over Time? >Interactivity: Adaptations and Variations >Lesson 2, Natural Selection>Squirrel Color and Survival; >Interactivity: Species Adaptation; >uInvestigate Lab: Variations in a Population; >Video: Natural Selection; >Interactivity: Mice Selection from the Prairie; >Interactivity: Lessons from the Potato Famine >Lesson 3, The Process of Evolution

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(Continued)	**(Continued)** >Interactivity: Frog Jump; >uInvestigate Lab: Adaptations of Birds; >Video: The Process of Evolution; >Interactivity: Mutations Aren't All that Bad; >Interactivity: Separated Species
4.0 Communicating reasons, arguments and ideas to others	
4.1 Arguing from evidence	
4.1.1 Students will be able to engage in argument from evidence for the explanations the students construct, defend and revise their interpretations when presented with new evidence, critically evaluate the scientific arguments of others, and present counter arguments.	
LS: From Molecules to Organisms: Structures and Processes	
7L.4.1.1.1 Support or refute an explanation by arguing from evidence for how the body is a system of interacting subsystems composed of groups of cells. (P: 7, CC: 4, CI: LS1) Emphasis is on the conceptual understanding that cells form tissues and tissues form organs specialized for body functions. Examples may include arguments that deal with the interaction of subsystems within a system and the normal functioning of those systems.	**SE/TE:** **Systems, Reproduction, and Growth** Cells Make Up an Organism, 80 Organs and Systems, Reading Check: Summarize Text, 117 Figure 5: Organ Systems in the Human Body, 120-121 Reading Check: Cite Textual Evidence, 121 Lesson 1 Check, 122 Systems Working Together, 125-129 Lesson 2 Check, #5, 133 Case Study: Agents of Infection, 134-135 The Digestive System as a Whole, Write Arguments, 145 Literacy Connection: Draw Evidence, 153 Lesson 4 Check, 159 Quest Check-In, 175 Topic 3 Review and Assess, 170-171 uDemonstrate Lab: Reaction Research, 174-177

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7L.4.1.1.2 Support or refute an explanation by arguing from evidence and scientific reasoning for how animal behavior and plant structures affect the probability of successful reproduction. (P: 7, CC: 2, CI: LS1) Examples of behaviors that affect the probability of animal reproduction may include nest building to protect young, herding of animals to protect young from predators, and vocalization and/or colorful plumage to attract mates for breeding. Examples of animal behaviors that affect the probability of plant reproduction may include transferring pollen or seeds, and creating conditions for seed germination and growth. Examples of plant structures may include bright flowers attracting butterflies that transfer pollen, flower nectar and odors that attract insects that transfer pollen, and hard shells on nuts that squirrels bury.	**SE/TE:** **Systems, Reproduction, and Growth** Reproduction, 7 Life Produces More Life, 8-9 Connect It!: Explain , 192 Plant Reproduction, 193 Asexual Reproduction, 196 Figure 5: Male and Female Cones, 197 Literacy Connection: Cite Textual Evidence , 197 Figure 6: Flower Parts and Their Jobs, 198 Lesson 2 Check, 200 uEngineer It!: Gardening in Space, 201 Connect it! , 202 Figure 2: Courtship Behaviors , 205 Figure 3: Parenting Behavior: Distinguish Relationship, 206 Math Toolbox: Survivorship Curves, 207 Figure 5, Working Together: Integrate Information, 208 Lesson 3 Check, 210 Quest Check-In, 210 Extraordinary Science: Avian Artists, 211 Topic 4 Review and Assess, #6-13, 224-225 Evidence-Based Assessment, 226-227 **Realize™ Digital Resources:** **Systems, Reproduction, and Growth** >Lesson 2, Plant Structures for Reproduction>Document: Seeds for Food; >Interactivity: Designer Flowers; >Video: Plant Structures for Reproduction; >uInvestigate Lab: Modeling Flowers; >Interactivity: Plants and Pollinators >Lesson 3, Animal Behaviors for Reproduction>Inquiry Warm-Up Lab; >Interactivity: They're Acting Like Animals!; >Video: Animal Behaviors for Reproduction; >uInvestigate Lab: Behavior Cycles; >Interactivity: Fireflies

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4.1.2 Students will be able to argue from evidence to justify the best solution to a problem or to compare and evaluate competing designs, ideas, or methods.*	
LS: Ecosystems: Interactions, Energy, and Dynamics	
7L.4.1.2.1 Construct an argument supported by empirical evidence that changes in physical or biological components of an ecosystem affect populations.* (P: 7, CC: 7, CI: LS2) Emphasis is on recognizing patterns in data and making warranted inferences about changes in populations, and on evaluating empirical evidence supporting arguments about changes and/or impacts to ecosystems. Examples of physical components may include human-built structures like urban developments, or dams.	**SE/TE:** **Relationships Within Ecosystems** Factors That Limit Population Growth, 42 Lesson 1 Check, 43 Quest Check-In, 43 The Essential Question, 73 Model It!: Pioneers, 90 Figure 4: Changes to Populations, 93 Lesson 2 Check, 94 Figure 4, A Narrow Niche: Apply concepts, 100 Math Toolbox: Room to Roam , 102 Human Impact , 103 Reading Check: Determine Conclusions, 104 Reading Check: Construct Explanations , 106 Lesson 3 Check, 107 Quest Check-In!: Synthesis Information, 107 Case Study: The Dependable Elephant, 108-109 Literacy Connection: Write Arguments, 116 Topic 3 Review and Assess; #10 & 14, 120-121 uDemonstrate Lab: Changes in an Ecosystem, 124-127 **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Populations, Communities, and Ecosystems** >Topic Launch>uConnect Lab: How Communities Change >Lesson 2: Dynamic and Resilient Ecosystems>Document: Ecosystem Disruptions; >Interactivity: Succession in an Ecosystem; >Video: Ecosystems, Dynamic and Resilient; >Virtual Lab: The Icy World of Polar Bears; >uInvestigate Lab: Primary or Secondary

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7L.4.1.2.2 Evaluate competing design solutions for maintaining biodiversity or ecosystem services.* (P: 7, CC: 2, CI: LS2, ETS2) Emphasis is on evaluating a solution that reduces environmental harm while still benefiting humans. Examples of ecosystem services (natural processes within ecosystems that humans also benefit from) may include water purification as it cycles through Earth's systems, nutrient recycling, climate stabilization, decomposition of wastes, and pollination. Examples of design solution constraints may include scientific, economic, and social considerations.	**SE/TE:** **Relationships Within Ecosystems** Quest Kickoff: Should an Animal Crossing Be Constructed in My Community?, 76-77 Design it: Ecological Restoration, 117 uEngineer It!: From Bulldozers to Biomes, 119 **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Populations, Communities, and Ecosystems** >Lesson 3, Biodiversity>Quest Check-In Lab: Design and Model a Crossing
4.2 Obtaining, evaluating and communicating information	
4.2.2 Students will be able to gather information about and communicate the methods that are used by various cultures, especially those of Minnesota American Indian Tribes and communities, to develop explanations of phenomena and design solutions to problems.	
7L.4.2.2.1 Gather multiple sources of information and communicate how Minnesota American Indian Tribes and communities and other cultures use knowledge to predict or interpret patterns of interactions among organisms across multiple ecosystems. (P: 8, CC: 1, CI: LS2, ETS2) Examples of cultures may include those within the local context of the learning community and within the context of Minnesota. Emphasis is on predicting consistent patterns of interactions in different ecosystems in terms of the relationships among and between organisms and abiotic components of ecosystems. Examples of types of interactions may include competition, predation and mutualisms.	**SE/TE:** **Relationships Within Ecosystems** Competition and Predation, 81-83 Symbiotic Relationships, 84-86 Lesson Check, 87 Model It!, Pioneers, 90 Lesson 2 Check, 94 Case Study: The Dependable Elephant, 108-109 Topic Review and Assess, 120 uDemonstrate Lab: Changes in an Ecosystem, 124-125 Supporting Content: **Realize™ Digital Resources:** **Relationships Within Ecosystems** **Populations, Communities, and Ecosystems** >Lesson 1, Interactions in Ecosystems>uInvestigate Lab: Competition and Predation; >Video: Interactions in Ecosystems