

A Correlation of
Elevate Science
Life ©2019



To the
Georgia
Standards of Excellence for Science
Grade 7

**A Correlation of Elevate Science: Life ©2019
to the
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Introduction

This document demonstrates how *Elevate Science: Life ©2019* supports the Georgia Standards of Excellence for Science. Correlation page references are to the Student and Teacher’s Editions and cited at the page level.

Pearson 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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(S7L) Life Science	
(S7L1) Obtain, evaluate, and communicate information to investigate the diversity of living organisms and how they can be compared scientifically.	
(S7L1.a) Develop and defend a model that categorizes organisms based on common characteristics.	SE/TE: Quest Kick-Off, 2 Classifying Organisms, 17–21 Evolution and Classification, 22–23 Lesson 2 Check, 24 Topic Review, 50 Quest Findings, 53
(S7L1.b) Evaluate historical models of how organisms were classified based on physical characteristics and how that led to the six kingdom system (currently archaea, bacteria, protists, fungi, plants, and animals).	SE/TE: Classifying Organisms, 17–21 Linnaean Naming System, 17 Math Toolbox, 20 Evolution and Classification, 22–23 Lesson 2 Check, 24 Classification: What’s a Panda, 25
(S7L2) Obtain, evaluate, and communicate information to describe how cell structures, cells, tissues, organs, and organ systems interact to maintain the basic needs of organisms.	
(S7L2.a) Develop a model and construct an explanation of how cell structures (specifically the nucleus, cytoplasm, cell membrane, cell wall, chloroplasts, lysosome, and mitochondria) contribute to the function of the cell as a system in obtaining nutrients in order to grow, reproduce, make needed materials, and process waste.	SE/TE: Parts of a Cell, 73–75 Organelles in the Cytoplasm, 76–78 Cells Working Together, 79–80 Lesson 2 Check, 81 Function of the Cell Membrane, 84–87 Moving Large Particles, 88 Lesson 3 Check, 89 Photosynthesis, 102–103 Lesson 5 Check, 106
(S7L2.b) Develop and use a conceptual model of how cells are organized into tissues, tissues into organs, organs into systems, and systems into organisms.	SE/TE: Specialized Cells, 79 Cells Make Up an Organism, 80 Lesson 2 Check, 81 Levels of Organization, 132–133 Lesson 1 Check, 138

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(S7L2.c) Construct an argument that systems of the body (Cardiovascular, Excretory, Digestive, Respiratory, Muscular, Nervous, and Immune) interact with one another to carry out life processes.	SE/TE: Levels of Organization, 132–133 Human Organ Systems, 134–135 Lesson 1 Check, 138 Systems Working Together, 141–145 Homeostasis, 146–148 Lesson 2 Check, 149 The Digestive Process, 156–157 The Lower Digestive System, 158–161 The Circulatory System, 165 The Cardiovascular System, 166 Respiratory System, 170–171 Excretory System, 172–173 Model It, 174 Lesson 4 Check, 175 Central Nervous System, 179 Model It, 181 Lesson 5 Check, 185 Evidence-Based Assessment, 188–189
(S7L3) Obtain, evaluate, and communicate information to explain how organisms reproduce either sexually or asexually and transfer genetic information to determine the traits of their offspring.	
(S7L3.a) Construct an explanation supported with scientific evidence of the role of genes and chromosomes in the process of inheriting a specific trait.	SE/TE: Chromosomes and Genes, 361–363 Using a Pedigree, 364 Forming Sex Cells, 365–367 Lesson 2 Check, 368 Chromosomes and Variation, 382–383 Lesson 4 Check, 391 Make the Right Call, 406–409
(S7L3.b) Develop and use a model to describe how asexual reproduction can result in offspring with identical genetic information while sexual reproduction results in genetic variation.	SE/TE: Asexual and Sexual Reproduction, 199–200 Comparing Types of Reproduction, 201 Inherited Traits, 202–203 Lesson 1 Check, 207

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(S7L3.c) Ask questions to gather and synthesize information about the ways humans influence the inheritance of desired traits in organisms through selective breeding.	SE/TE: Connect It, 392 Artificial Selection, 393 Lesson 5 Check, 401
(S7L4) Obtain, evaluate, and communicate information to examine the interdependence of organisms with one another and their environments.	
(S7L4.a) Construct an explanation for the patterns of interactions observed in different ecosystems in terms of the relationships among and between organisms and abiotic components of the ecosystem.	SE/TE: Organisms and Habitats, 253–254 Ecosystem Organization, 255 Populations, 256–257 Factors That Limit Population Growth, 258 Lesson 1 Check, 259 Niche, 296 Competition and Predation, 297–299 Symbiotic Relationships, 300–301 Parasitism, 302 Lesson 1 Check, 303 Ecosystem Disruptions and Population Survival, 308–309 Lesson 2 Check, 310 Ecosystem Services, 327–330 Lesson 4 Check, 334
(S7L4.b) Develop a model to describe the cycling of matter and the flow of energy among biotic and abiotic components of an ecosystem.	SE/TE: Energy Roles in an Ecosystem, 263–265 Energy and Matter Transfer, 266–269 Model It, 267 Lesson 2 Check, 270
(S7L4.c) Analyze and interpret data to provide evidence for how resource availability, disease, climate, and human activity affect individual organisms, populations, communities, and ecosystems.	SE/TE: Case Study: The Case of the Disappearing Cerulean Warbler, 260–261 Factors Affecting Biodiversity, 316–318 Math Toolbox, Room to Roam, 318 Case Study: The Dependable Elephant, 324–325 Restoring Water, 329 Factors Impacting Ecosystem Services, 331–332 Conservation, 333 Lesson 4 Check, 334

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(S7L4.d) Ask questions to gather and synthesize information from multiple sources to differentiate between Earth’s major terrestrial biomes (i.e., tropical rain forest, savanna, temperate forest, desert, grassland, taiga, and tundra) and aquatic ecosystems (i.e., freshwater, estuaries, and marine).	SE/TE: Biotic Factors, 254 Interactivity, Video, 254 Lesson 1 Check, 259 Case Study: The Case of the Disappearing Cerulean Warbler, 260–261
(S7L5) Obtain, evaluate, and communicate information from multiple sources to explain the theory of evolution of living organisms through inherited characteristics.	
(S7L5.a) Use mathematical representations to evaluate explanations of how natural selection leads to changes in specific traits of populations over successive generations.	SE/TE: Math Toolbox: Chromosome and Gene Relationship, 383 Hands-on Lab, 427 Overproduction, Figure 3, 427 Math Toolbox, 428
(S7L5.b) Construct an explanation based on evidence that describes how genetic variation and environmental factors influence the probability of survival and reproduction of a species.	SE/TE: Darwin’s Journey, 419–422 Lesson 1 Check, 423 Darwin’s Search for a Mechanism, 425–427 How Natural Selection Works, 427–429 Genes and Natural Selection, 430–431 Lesson 2 Check, 432
(S7L5.c) Analyze and interpret data for patterns in the fossil record that document the existence, diversity, and extinction of organisms and their relationships to modern organisms.	SE/TE: The Fossil Record, 443–445 Fossil Evidence of Evolution, 446–447 Comparisons of Anatomy, 448–449 Beginning and End of a Species, 450–452 Lesson 4 Check, 453 Case Study: Could Dinosaurs Roar, 454–455