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A Correlation of

Elevate Science

Grade 5, ©2021

To the

Oklahoma
Academic Standards for Science 2014
Grade 5

Prepared by Savvas Learning Company, formerly Pearson K12 Learning

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Introduction

The following document demonstrates how the ***Elevate Science, ©2021*** program supports the Oklahoma Academic Standards for Science. For each standard, correlation references are to the Student Edition and Teacher Edition where applicable.

Elevate Science is a comprehensive K-5 science program that focuses on active, student-centered learning. It builds students' critical thinking, questioning, and collaboration skills, and fuels interest in STEM and creative problem solving while supporting literacy development for elementary-age learners. Developed to support Next Generation Science Standards (NGSS), ***Elevate Science*** integrates three dimensional learning of the Scientific and Engineering Practices, Crosscutting Concepts (CCC), and Disciplinary Core Ideas (DCIs).

The ***Elevate Science*** blended print and digital curriculum engages students in phenomena-based inquiry and hands-on investigations.

- Problem–based learning Quests put students on a journey of discovery
- Engineering-focused features infuse STEM learning
- Coding and innovation engage students and build 21st century skills

The Teacher's Edition of ***Elevate Science*** helps elementary educators teach science with confidence: Scaffolding, ELD, differentiated instruction, and an instructional organization based upon the 5E learning model, (Engage, Explore, Explain, Extend/Elaborate, Evaluate), provide all the support needed for successful teaching practices. Professional development offers point-of-use support. A full-view approach to inquiry and testing provides new options for a variety of hands-on labs and assessments for three-dimensional learning.

Elevate Science 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 argument. 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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5-PS1 Matter and Its Interactions	
5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances. Clarification Statement Examples of interactions forming new substances can include mixing baking soda and vinegar. Examples of interactions not forming new substances can include mixing baking soda and water.	**SE/TE:** Quest Connection, 19 uInvestigate Lab: How can you separate a mixture?, 79 Mixtures, 80 Model It!, 80 Assessment, 91 uDemonstrate Lab: How does mass change when you make glop?, 94-95
5-PS2 Motion and Stability: Forces and Interactions	
5-PS2-1 Support an argument that the gravitational force exerted by the Earth is directed down. Clarification Statement" Down" is a local description of the direction that points toward the center of the spherical earth. Earth causes objects to have a force on them that point toward the center of the Earth, "down". Support for arguments can be drawn from diagrams, evidence, and data that are provided. Assessment Boundary Mathematical representation of gravitational force is not assessed.	**SE/TE:** uInvestigate Lab: How long do objects take to fall?, 279 Gravitational Force, 280 Interactivity, 280 Gravity on Earth, 281 uBe a Scientist: Explore Gravity, 281 Argument from Evidence, 282 Gravity in Space, 282 Lesson 1 Check, 282 Science Practice Toolbox: Engage in Quest Connection, 282 Quest Check-In Lab: How does gravity affect matter?, 283 Topic Assessment, 308-309

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5-PS3 Energy	
5-PS3-1 Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the sun. Clarification Statement Examples of models could include diagrams, and flow charts. Assessment Boundary does not include cellular mechanisms of digestive absorption.	**SE/TE:** Topic 8 Opener: Energy and Food, 314-315 uInvestigate Lab: How is the sun involved in your meals?, 321 Plants and Energy, 322 What is a trophic level?, 324-325 Energy Paths to the Sun, 326 Lesson 1 Check, 326 uInvestigate Lab: How do animals get energy from the sun?, 339 Internal Uses of Energy, 343 Topic Assessment, 348-349 Evidence-Based Assessment, 350-351 Quest Kickoff: Public Relations Gone Wild!, 356-357 Visual Literacy Connection: Who eats whom?, 372-373 Food Chains, 374 Food Webs, 375 Energy Flow in Ecosystems, 389
5-LS1 From Molecules to Organisms: Structure and Processed	
5-LS1-1 Support an argument that plants get the materials they need for growth chiefly from air and water. Clarification Statement Emphasis is on the idea that plant matter comes mostly from air and water, not from the soil.	**SE/TE:** uInvestigate Lab: What matter do plants need to make food?, 329 Crosscutting Concepts Toolbox: Energy and Matter, 330 Model It!, 330 Photosynthesis, 330 Crosscutting Concepts Toolbox: Energy and Matter, 330 How Plants Gain Mass, 331 Engineering Toolbox: Growing Plants in Space, 333 Lesson 2 Check, 333 Topic Assessment, 348-349

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5-LS2 Ecosystems: Interactions, Energy, and Dynamics	
5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. Clarification Statement Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth. Assessment Boundary does not include molecular explanations.	**SE/TE:** Animals and Energy, 323 What is a trophic level?, 324-325 uDemonstrate Lab: How does matter move through an ecosystem?, 352-353 STEM Connection, 368 uInvestigate Lab: How can matter change in an ecosystem?, 369 Producers, 370 Decomposers, 371 Visual Literacy Connection: Who eats whom?, 372-373 Food Webs, 375 Lesson 2 Check, 375 Engineering Connection, 386 Flow of Matter in Ecosystems, 388 Energy Flow in Ecosystems, 389 Lesson 4 Check, 392 Topic Assessment, 398-399
5-LS2-2 Use models to explain factors that upset the stability of local ecosystems. Clarification Statement Factors that upset an ecosystem's stability includes: invasive species, drought, human development, and removal of predators. Models could include simulations, and representations, etc. Assessment Boundary does not include molecular explanations.	**SE/TE:** uInvestigate Lab: What happens to substances over time?, 205 Visual Literacy Connection: How can human activities change Earth's systems?, 206-207 Curriculum Connection, 212 Topic 9 Opener: Matter and Energy in Ecosystems, 354-355 uConnect Lab: How do the parts in a fish tank make up a system?, 358 Parts of an Ecosystem, 363 Visual Literacy Connection: How do factors interact in a forest ecosystem?, 364-365 Ecosystem Size, 366 Lesson 1 Check, 366 Local-to-Global Connection, 378 Lesson 3 Check, 383 Stable Ecosystems, 382 Threats to Ecosystems, 383 Quest Check-In: Moving Matter and Energy, 393 Topic Assessment, 398-399 Evidence-Based Assessment, 400-401

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5-ESS1 Earth's Place in the Universe	
5-ESS1-1 Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. Assessment Boundary Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, stage).	**SE/TE:** Local-to-Global Connection, 236 uInvestigate Lab: How are distance and brightness related?, 237 Interactivity, 238 Brightness of Stars, 240 Distances of Stars, 240 Star Temperature, 240 Plan It!, 241 Lesson 1 Check, 242 Evidence-Based Assessment, 268-269 Stars and Constellations, 297
5-ESS1-2 Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. Clarification Statement Examples of patterns could include the position and motion of Earth with respect to the sun and selected stars that are visible only in particular months. Assessment Boundary does not include causes of seasons.	**SE/TE:** Quest Kickoff: Plan a Trip Around the World of Patterns, 274-275 Literacy Connection: Sequence, 277 uInvestigate Lab: How are we spinning?, 285 Earth's Rotation, 286 Interactivity, 290 Quest Check-In: Sun Up, Sun Down, 292 uInvestigate Lab: What star patterns can you see?, 295 Model It!, 296 Shadow Patterns, 296 uBe a Scientist: Shadow Play, 296 Visual Literacy Connection: How do we identify star patterns in the sky?, 298-299 Keeping Track of Time, 302 Lesson 3 Check, 302 Quest Findings: Plan a Trip Around the World of Patterns, 306 Topic Assessment, 308-309 Evidence-Based Assessment, 310-311 uDemonstrate Lab: What can we tell from shadows?, 312-313

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5-ESS2 Earth's Systems	
5-ESS2-1 Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. Clarification Statement Examples could include the influence of the ocean on ecosystems, landform shape, and climate; the influence of the atmosphere on landforms and ecosystems through weather and climate; and the influence of mountain ranges on winds and clouds in the atmosphere. The geosphere, hydrosphere, atmosphere, and biosphere are each a system. Assessment Boundary is limited to the interactions of two systems at a time.	**SE/TE:** Quest Kickoff: Connect the Spheres, 98-99 Curriculum Connection, 102 uInvestigate Lab: How does water move through soil?, 103 Earth's Systems, 104 Geosphere and Biosphere, 105 Interactivity, 105 Quest Connection, 105 Visual Literacy Connection: What are parts of Earth's geosphere and biosphere?, 106-107 Lithosphere, 108 Lesson 1 Check, 108 uBe a Scientist, 108 Quest Check-In: Raining Acid, 109 uInvestigate Lab: How does a greenhouse work?, 111 Visual Literacy Connection: What are parts of Earth's hydrosphere?, 112-113 Atmosphere, 114 Interactivity, 114 Quest Connection, 114 Hydrosphere and Atmosphere Together, 115 Lesson 2 Check, 115 Science Practice Toolbox: Analyze and Interpret Data, 115 Quest Check-In Lab: Where are Earth's spheres?, 116-117 uInvestigate Lab: How does the geosphere affect the hydrosphere?, 121 Biosphere, 122 Crosscutting Concepts Toolbox: Systems and System Models, 122 Interdependence of Earth's Systems, 122 Geosphere and Atmosphere, 123 Visual Literacy Connection: How does the ocean affect other systems on Earth?, 124-125 Interactivity, 126 Lesson 3 Check, 127 Natural Disruptions, 127 Quest Check-In: Earth's Interactions, 128 Quest Findings: Connect the Spheres, 130 Topic Assessment, 132-133

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(Continued)	(Continued) Evidence-Based Assessment, 134-135 uDemonstrate Lab: How are the spheres represented in a terrarium?, 136-137 Where is Water?, 164 uEngineer It!: Ecosystems in a box, 394-395
5-ESS2-2 Describe and graph the amounts and percentages of water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. Assessment Boundary is limited to oceans, lakes, rivers, glaciers, ground water, and polar ice caps, and does not include the atmosphere. Only a tiny fraction is in streams, lakes, wetlands, and the atmosphere.	**SE/TE:** Visual Literacy Connection: What are parts of Earth's hydrosphere?, 112-113 Visual Literacy Connection: How does the ocean affect other systems on Earth?, 124-125 Topic 4 Opener: Earth's Water, 138-139 Quest Kickoff: Water, Water Everywhere!, 140-141 uInvestigate Lab: Where did that water come from?, 145 Movement of Earth's Water, 147 Visual Literacy Connection: How does water cycle on earth?, 148-149 Quest Check-In: Follow the Flow, 151 Local-to-Global Connection, 154 uInvestigate Lab: How can you find water underground?, 155 Visual Literacy Connection: How is freshwater distributed across the Earth?, 156-157 Freshwater Shortages, 158 Quest Connection, 158 uBe a Scientist: Modeling Water Distribution, 158 Lesson 2 Check, 159 Where is Water?, 164 Quest Check-In: Water Resources, 170 Topic Assessment, 174-175 Evidence-Based Assessment, 176-177 uDemonstrate Lab: How can water move upward?, 178-179

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5-ESS3 Earth and Human Activity	
5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. Clarification Statement Examples of information might include the use of natural fertilizers or biological pest control by farmers, replanting trees after cutting them by the logging industry, and the institution of recycling programs in cities.	**SE/TE:** Topic 5 Opener: Human Impacts on Earth's Systems, 180-181 Quest Kickoff: Take Care of Earth – It's Our Home!, 182-183 uConnect Lab: How can we reuse materials to design new products?, 184 Air Resources, 192 Quest Check-In: Efficient or Wasteful?, 193 uEngineer It!: Make Energy the Solar Way, 194-195 Quest Check-In: Save Energy!, 203 STEM Connection, 204 uInvestigate Lab: What happens to substances over time?, 205 Reduce Human Impacts, 209 uInvestigate Lab: How can you collect rainwater?, 213 Resource Protection, 214 Environmental Conservation, 215 Reduce and Reuse, 218 Interactivity, 219 Lesson 4 Check, 219 Resource Use, 219 Quest Check-In: Increase Conservation, 220 Evidence-Based Assessment, 226-227 uDemonstrate Lab: How can you use the energy of water?, 228-229