A Correlation of

# Elevate Science Grade 1, ©2019



## To the

# New Jersey Science Model Curriculum Grade 1

**S**ΛVVΔS

### Introduction

The following document demonstrates how the *Elevate Science*, ©2019 program supports the New Jersey Model Curriculum 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 21<sup>st</sup> 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.

Copyright © 2020 Savvas Learning Company LLC All Rights Reserved. Savvas™ and Savvas Learning Company™ are the exclusive trademarks of Savvas Learning Company LLC in the US and in other countries.

SE = Teacher Edition

TE = Teacher Edition

### **Table of Contents**

Unit 1: Patterns of Change in the Night Sky	4
Unit 2: Characteristics of Living Things	6
Unit 3: Mimicking Organisms to Solve Problems	9
Unit 4: Light and Sound	. 10
Unit 5: Communicating with Light and Sound	13

SE = Teacher Edition

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Unit 1: Patterns of Change in the Night Sky	
Unit Summary	
Can we predict how the sky will change over time? In this unit of study, students observe, describe, and predict some patterns in the movement of objects in the sky. The crosscutting concept of <i>patterns</i> is called out as an organizing concept for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in <i>planning and carrying out investigations</i> and <i>analyzing and interpreting</i> <i>data</i> . Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 1-ESS1-1 and 1- ESS1-2.	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 1: Topic 3: Sky and Earth Lesson 1: Observe the Sky Lesson 2: Patterns in the Sky Lesson 3: Daylight Changes and Seasons Topic 4: Weather and Seasons Lesson 2: Weather Changes and Seasons

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Student Learning Objectives	
Use observations of the sun, moon, and stars to describe patterns that can be predicted. ( <u>1-ESS1-1</u> )	<ul> <li>SE/TE: Quest Kickoff: Sky Watchers, 76-77 ulnvestigate Lab: Why is it hard to see stars during the day?, 81 ulnvestigate Lab: How can you observe sun patterns?, 87 Moon Motions and Phases, 90 STEM Math Connection: Use a Calendar, 93 Quest Check-In Lab: How can you model the motions of the Earth?, 98- 99 Quest Findings: Sky Watchers, 102</li> <li>Realize<sup>™</sup> Digital Resources: Sky and Earth &gt;Topic Launch&gt;Video/Interactivity&gt;Quest Kickoff: Sky Watchers; Song&gt;"The Sun"; Coloring Activity: "The Sun"; Lesson 1, Observe the Sky&gt;Video&gt;Observe the Sky; Interactivity&gt;The Day Sky; Lesson 2, Patterns in the Sky&gt;Video&gt; Patterns in the Sky; Interactivity&gt;Patterns in the Night Sky; Quiz&gt;Patterns in the Sky; Sky and Earth&gt;Quest Findings&gt;Interactivity&gt;Sky Watchers</li> </ul>
Make observations at different times of year to relate the amount of daylight to the time of year. ( <u>1-ESS1-2</u> )	<ul> <li>SE/TE:</li> <li>Sunlight and Seasons, 129</li> <li>Quest Check-In Lab: How does the season affect the amount of daylight?, 132-133</li> <li>Realize™ Digital Resources: Sky and Earth&gt;Lesson 3, Daylight</li> <li>Changes and the Seasons&gt;Video&gt; Daylight Changes and the Seasons; Interactivity&gt;Seasons Around the World</li> </ul>

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Unit 2: Characteristics of Living Things	
Unit Summary	
In this unit of study, students develop an understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs, as well as how the behaviors of parents and offspring help offspring survive. The understanding that young plants and animals are like, but not exactly the same as, their parents is developed. The crosscutting concept of <i>patterns</i> is called out as an organizing concept for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in <i>obtaining,</i> <i>evaluating, and communicating information</i> and <i>constructing</i> <i>explanations</i> . Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 1- LS3-1 and 1-LS1-2.	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 1: Topic 6: Parents and Offspring Lesson 2: Observe Parents and Young Lesson 3: Patterns in Animal Behavior

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Student Learning Objectives	l
Student Learning Objectives Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms ( <u>1-LS3-1</u> )	<ul> <li>SE/TE: Quest Kickoff: Find the Parents, 186-187 Quest Findings: Find the Parents, 216 ulnvestigate Lab: What do young plants look like?, 197 Quest Check-In: Alike and Different, 203 Evidence-Based Account, 220-221 uDemonstrate Lab: How do living things change as they grow?, 222- 223</li> <li>Realize<sup>™</sup> Digital Resources: Parents and Offspring &gt;Topic Launch&gt;Video&gt;Quest Kickoff: Find the Parents; Lesson 2, Observe Parents and Young &gt;Video&gt;Observe Parents and Young; Interactivity&gt;Alike and Different: Living Things; Teacher Resources&gt;Enrichment: Young and Adult Trees; Quiz: Observe Parents and Young; Topic Close: Parents and Offspring&gt;Interactivity&gt;Quest Findings: Find the Parents</li> </ul>

New Jersey Science Model Curriculum	Elevate Science
Grade 1	Grade 1 ©2019
Read texts and use media to determine patterns in behavior of	<ul> <li>SE/TE:</li></ul>
parents and offspring that help offspring survive. ( <u>1-LS1-2</u> )	ulnvestigate Lab: How do nests protect eggs?, 207 <li>Parents Help Young, 209</li> <li>Parents Protect Young, 210-211</li> <li>Connecting Concepts Toolbox: Patterns, 211</li> <li>Parents Teach Young, 212</li> <li>Young Stay Close and Make Sounds, 213</li> <li>Quest Check-In: Parents Help Young Learn, 214</li> <li>Realize™ Digital Resources: Parents and Offspring&gt;Topic</li> <li>Launch&gt;Song&gt;Hi, Little Turtle!; Coloring Activity&gt; Hi, Little Turtle!;</li> <li>Lesson 3, Patterns in Animal Behavior&gt;Video&gt;Patterns in Animal</li> <li>Behavior; Interactivity&gt;Animal Behaviors; Quiz&gt;Patterns in Animal</li> <li>Behavior</li>

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Unit 3: Mimicking Organisms to Solve Problems	
Unit Summary	
In this unit of study, students develop an understanding of how plants and animals use their parts to help them survive, grow, and meet their needs. Students also need opportunities to develop possible solutions. As students develop possible solutions, one challenge will be to keep them from immediately implementing the first solution they think of and to instead think through the problem carefully before acting. Having students sketch their ideas or make a physical model is a good way to engage them in shaping their ideas to meet the requirements of the problem. The crosscutting concept of structure and function is called out as an organizing concept for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in constructing explanations, designing solutions, and in developing and using models. Students are expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 1- LS1-1 and K-2-ETS1-2.	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 1: Topic 5: Living Things Lesson 3: People Learn from Plant and Animal Parts Lesson 4: Where Plants and Animals Live
Student Learning Objectives	
Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. ( <u>1-LS1-1</u> )	<ul> <li>SE/TE: uEngineer It!: Design a Tool, 160-161 uInvestigate Lab: What can people learn from an acorn shell?, 163 Quest Findings: Nature Copycats, 176</li> <li>Realize™ Digital Resources: Living Things&gt;Lesson 3, People Learn from Plants and Animals&gt;Interactivity&gt;How People Mimic Living Things Topic Close: Living Things&gt;Interactivity&gt;Quest Findings: Nature Copycats</li> </ul>

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. ( <u>K-2-ETS1-2</u> )	<b>SE/TE:</b> uEngineer It!: Design a Tool, 160-161 uInvestigate Lab: What can people learn from an acorn shell?, 163 Quest Findings: Nature Copycats, 176
	<b>Realize™ Digital Resources:</b> Living Things>Lesson 3, People Learn from Plants and Animals>Interactivity>How People Mimic Living Things; Topic Close: Living Things>Interactivity>Quest Findings: Nature Copycats
Unit 4: Light and Sound	
Unit Summary	
In this unit of study, students develop an understanding of the relationship between sound and vibrating materials as well as between the availability of light and the ability to see objects. The idea that light travels from place to place can be understood by students at this level by placing objects made with different materials in the path of a beam of light and determining the effect of the different materials. The crosscutting concept of <i>cause and effect</i> is called out as an organizing concept for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in <i>planning and carrying out investigations, constructing explanations,</i> and <i>designing solutions.</i> Students are also expected to use these practices to demonstrate understanding of the core ideas.	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 1: Topic 1: Sound Lesson 1: Describe Sound Lesson 2: Make Sound Lesson 3: Uses of Sound Topic 2: Light Lesson 1: Observe Light Lesson 2: Light and Matter Lesson 3: Uses of Light

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Student Learning Objectives	
Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated ( <u>1-PS4-2</u> )	<ul> <li>SE/TE: uConnect Lab: What do you need to see objects?, 40 Light and Darkness, 44 Quest Connection, 45 Jumpstart Discovery!, 58</li> <li>Realize™ Digital Resources: Light&gt;Lesson 1, Observe Light&gt;Video&gt;Observe Light; Interactivity&gt;Light Helps Us See; Lesson 2, Light and Matter&gt;Video&gt;Light and Matter; Interactivity&gt;Shine Light on Matter; Lesson 3, Uses of Light&gt;Video&gt;Uses of Light; Interactivity&gt;Light Keeps Us Safe</li> </ul>
Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light. ( <u>1-PS4-3</u> )	<ul> <li>SE/TE: ulnvestigate Lab: What happens when an object blocks light?, 43 ulnvestigate Lab: How do materials affect light?, 49 ulnvestigate Lab: How can you use light to see?, 59</li> <li>Realize™ Digital Resources: Light&gt;Lesson 2, Light and Matter&gt; Interactivity&gt;Shine Light on Matter; Light&gt;uDemonstrate Lab&gt;How can I change a transparent material?</li> </ul>

New Jersey Science Model Curriculum	Elevate Science
Grade 1	Grade 1 ©2019
Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. ( <u>1-PS4-1</u> )	<ul> <li>SE/TE: Quest Kickoff: Sending Sound Messages, 2-3 uConnect Lab: How can a ruler make sound?, 4 ulnvestigate Lab: How does size affect sound?, 7 Jumpstart Discovery!, 12 ulnvestigate Lab: How can you see sound?, 13 Making Sounds, 14 Musical Sounds, 15 Making Music, 16-17 Quest Check-In Lab: How can instruments talk?, 18-19 ulnvestigate Lab: What does that sound say?, 21 Quest Check-In Lab: How can an instrument send a secret?, 25 Quest Findings: Sending Sound Messages, 28 Assessment, 30-31 Evidence-Based Assessment, 32-33</li> <li>Realize™ Digital Resources: Sound&gt;Topic Launch&gt;Sound&gt;Song,&gt;Listen to the Sounds!; Sound&gt;Lesson 1, Describe Sound&gt;Interactivity&gt;The Sound of Sounds; Sound&gt;Lesson 2, Make Sound&gt;Interactivity&gt;Length and Sound; Sound&gt;Lesson 3, Uses of Sound&gt;Video&gt;Uses of Sound; Sound&gt;Lesson 3&gt;Interactivity&gt;Sending Sounds to Communicate</li> </ul>

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Unit 5: Communicating with Light and Sound	
Unit Summary	
How would we communicate over a distance without the use of any of the devices that people currently use? In this unit of study, students continue to develop their understanding of the relationship between sound and vibrating materials as well as between the availability of light and the ability to see objects. Students apply their knowledge of light and sound to engage in engineering design to solve a simple problem involving communication with light and sound. The crosscutting concepts of <i>structure and function and influence of</i> <i>engineering, technology, and science on society and the natural world</i> are called out as organizing concepts for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in <i>constructing explanations and designing solutions, asking questions and</i> <i>defining problems</i> , and <i>developing and using models</i> . Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on 1-PS4-4, K-2-ETS1-1, and K-2-ETS1-2.	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 1: Topic 1: Sound Lesson 1: Describe Sound Lesson 2: Make Sound Lesson 3: Uses of Sound Topic 2: Light Lesson 1: Observe Light Lesson 2: Light and Matter Lesson 3: Uses of Light

New Jersey Science Model Curriculum Grade 1	Elevate Science Grade 1 ©2019
Student Learning Objectives	·
Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance. ( <u>1-PS4-4</u> )	<ul> <li>SE/TE:</li> <li>Quest Check-In Lab: How can instruments talk?, 18-19</li> <li>uInvestigate Lab: What does that sound say?, 21</li> <li>uEngineer It!: Alert! Alert!, 26-27</li> <li>Quest Findings: Sending Sound Messages, 28</li> <li>Quest Check-In: Materials for a Light Signal, 54</li> <li>Quest Check-In Lab: How can you send secret messages?, 64-65</li> <li>Quest Findings: Help Send a Message, 66</li> <li>Realize™ Digital Resources: Sound&gt;Topic Close:: Sound&gt;Quest</li> <li>Findings&gt;Interactivity&gt;Sending Sound Messages; Light&gt;Topic Close:</li> <li>Light&gt;Quest Findings&gt;Interactivity&gt;Help Send a Message</li> </ul>

New Jersey Science Model Curriculum	Elevate Science
Grade 1	Grade 1 ©2019
Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. ( <u>K-2-ETS1-1</u> )	<ul> <li>SE/TE: Quest Kickoff: Sending Sound Messages, 2-3 Quest Check-In Lab: How can instruments talk?, 18-19 Quest Check-In Lab: How can an instrument send a secret?, 25 uEngineer It!: Alert! Alert!, 26-27 Quest Findings: Sending Sound Messages, 28 Quest Kickoff: Help Send a Message, 38-39 Quest Check-In: Give off Light, 47 Quest Check-In: Materials for a Light Signal, 54 Quest Check-In: Materials for a Light Signal, 54 Quest Check-In Lab: How can you send secret messages?, 64-65 Quest Findings: Help Send a Message, 66</li> <li>Realize™ Digital Resources: Sound&gt;Topic Launch: Sound&gt;Video&gt;Quest Kickoff: Sending Sound Messages; Topic Close: Sound&gt;Quest Findings&gt;Interactivity&gt;Sending Sound Messages; Light&gt;Topic Launch: Light&gt;Video&gt;Quest Kickoff: Help Send a Message; Light&gt;Topic Close: Light&gt;Quest Findings&gt;Interactivity&gt;Help Send a Message</li> </ul>
Develop a simple sketch, drawing, or physical model to illustrate	<ul> <li>SE/TE:</li></ul>
how the shape of an object helps it function as needed to solve a	ulnvestigate Lab: How does size affect sound?, 7 <li>Quest Check-In Lab: How can an instrument send a secret?, 25</li> <li>Quest Findings: Sending Sound Messages, 28</li> <li>Quest Check-In Lab: How can you send secret messages?, 64-65</li> <li>Quest Findings: Help Send a Message, 66</li> <li>Realize™ Digital Resources: Sound&gt;Quest</li> <li>Findings&gt;Interactivity&gt;Sending Sound Messages; Light&gt;Topic Close:</li>
given problem. ( <u>K-2-ETS1-2</u> )	Light>Quest Findings>Interactivity>Help Send a Message