A Correlation of

# Elevate Science Grade 2, ©2019



### To the

# New Jersey Science Model Curriculum Grade 2

**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.

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SE = Teacher Edition

**TE = Teacher Edition** 

### **Table of Contents**

Jnit 1: Relationships in Habitats	4
Init 2: Properties of Matter	7
Jnit 3: Changes to Matter	9
Jnit 4: The Earth's Land and Water	1
Jnit 5: Changes to Earth's Land	3

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Unit 1: Relationships in Habitats	
Unit Summary:	
•	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 2: Topic 5: Plants and Animals Lesson 2: Plant Needs Lesson 4: Animals Can Help Plants Reproduce Topic 6: Habitats Lesson 1: Identify Habitats Lesson 3: Living Things in Water Habitats

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Student Learning Objectives:	
Make observations of plants and animals to compare the diversity of life in different habitats. ( <u>2-LS4-1</u> )	<ul> <li>SE/TE: uConnect Lab: How are plants and animals alike and different?, 152 uConnect Lab: What is out there?, 194 uInvestigate Lab: Who lives in a grassland?, 197 uInvestigate Lab: How do plants survive in water?, 211 Quest Check-In: Why Some Animals Live in Water, 216 uDemonstrate Lab: How can you compare diversity in two habitats?, 224-225</li> <li>Realize™ Digital Resources: Habitats&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Protect a Habitat; Song&gt;Living Everywhere; Coloring Activity&gt; Living Everywhere; Lesson 1, Identify Habitats&gt;Video&gt;Identify Habitats; Interactivity&gt;Your Home is Your Habitat; Quiz&gt;Identify Habitats; Lesson 2, Living Things in Land Habitats&gt;Video&gt; Living Things in Land Habitats; Interactivity&gt;Comparing Different Land Habitats; Quiz&gt;Living Things in Land Habitats; Lesson 3, Living Things in Water Habitats&gt;Video&gt; Living Things in Water Habitats; Interactivity&gt;Explore Interactions in Water Habitats; Findings&gt;Interactivity&gt;Protect a Habitat</li> </ul>

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Plan and conduct an investigation to determine if plants need sunlight and water to grow. ( <u>2-LS2-1</u> )	<ul> <li>SE/TE: uInvestigate Lab: What do plants need to grow?, 163 Quest Check-In Lab: How can you see the parts of a plant work?, 166-167 uDemonstrate Lab: How does a plant make oxygen?, 188-189</li> <li>Realize™ Digital Resources: Plants and Animals&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Help Save the Giant Flower; Plants and Animals&gt;Lesson 2, Plant Needs&gt;Video&gt;Plant Needs; Interactivity&gt;How Plant Parts Help Plants; Plants and Animals&gt;Topic Close&gt;Quest Findings&gt;Interactivity&gt;Help Save the Giant</li> </ul>
Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants. (2-LS2-2)	<ul> <li>SE/TE: ulnvestigate Lab: How Can You Model How Animals Spread Seeds?, 175 Quest Check-In Lab: Pollination, 178-179</li> <li>Realize™ Digital Resources: Plants and Animals&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Help Save the Giant Flower; Plants and Animals&gt;Lesson 4, Animals Can Help Plants Reproduce&gt;Video&gt;Animals Can Help Plants Reproduce; Interactivity&gt;How Seeds and Pollen are Dispersed; Quiz&gt;Animals Can Help Plants Reproduce; Plants and Animals&gt;Topic Close&gt;Quest Findings&gt;Interactivity&gt;Help Save the Giant Flower</li> </ul>

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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: Help Save the Giant Flower, 150-151 uEngineer It!: Here's the Buzz, 180-181 Quest Findings: Help Save the Giant Flower, 182</li> <li>Realize™ Digital Resources: Plants and Animals&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Help Save the Giant Flower; Lesson 4, Animals Can Help Plants Reproduce&gt;Interactivity: How Seeds and Pollen are Dispersed; Topics Close: Plants &amp; Animals&gt;Interactivity&gt;Quest Findings: Help Save the Giant Flower</li> </ul>
Unit 2: Properties of Matter Unit Summary:	
How do the properties of materials determine their use?	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 2:
In this unit of study, students demonstrate an understanding of observable properties of materials through analysis and classification of different materials. The crosscutting concepts of patterns, cause and effect, and the influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in planning and carrying out investigations and analyzing and interpreting data. Students are also expected to use these practices to demonstrate understanding of the core ideas.	Topic 1: Properties of Matter Lesson 1: Describe Matter Lesson 2: Properties of Matter Lesson 3: Use Solids Lesson 4: Use Liquids and Gases Topic 2: Changing Matter Lesson 3: Matter Within Objects

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Student Learning Objectives:	
Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. ( <u>2-</u> <u>PS1-1</u> )	<ul> <li>SE/TE: ulnvestigate Lab: What is different?, 7 Quest Check-In: Observe, Measure, Test?, 19 ulnvestigate Lab: Which package fits the blocks?, 21 ulnvestigate Lab: How can you make a bigger bubble?, 27</li> <li>Realize™ Digital Resources: Properties of Matter&gt;Lesson 1, Describe Matter&gt;Interactivity&gt;Explore Solids, Liquids, and Gases; Lesson 2, Properties if Matter&gt;Interactivity&gt;Observe Properties of Matter; Lesson 3, Use Solids&gt;Interactivity&gt;The Most Useful Tool for the Job; Lesson 4, Use Liquids and Gases&gt;Interactivity&gt;Experiment with Solids, Liquids, and Gases</li> </ul>
Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. ( <u>2-PS1-2</u> )	<ul> <li>SE/TE:</li> <li>Quest Check-In: Build with Solids, Liquids, and Gases, 11</li> <li>uInvestigate Lab: What can beavers teach engineers?, 15</li> <li>Quest Check-In: How do you use shapes when building?, 24-25</li> <li>uInvestigate Lab: How can you make a bigger bubble?, 27</li> <li>Stem Quest Check-in: What materials make a bridge strong?, 64</li> <li>Realize™ Digital Resources: Properties of Matter&gt;Lesson 3, Use</li> <li>Solids&gt;Interactivity&gt;The Most Useful Tool for the Job</li> </ul>

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Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. ( <u>K-2-ETS1-3</u> )	<ul> <li>SE/TE:</li> <li>Quest Check-In: Build with Solids, Liquids, and Gases, 11</li> <li>ulnvestigate Lab: What can beavers teach engineers?, 15</li> <li>Stem Quest Check-in: What materials make a bridge strong?, 64</li> <li>Realize™ Digital Resources: Properties of Matter&gt;Lesson 3, Use</li> <li>Solids&gt;Interactivity&gt;The Most Useful Tool for the Job</li> </ul>
Unit 3: Changes to Matter	
Unit Summary:	This unit is addressed in the following Tenis(s) and Lessen(s)
How can objects change?	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 2:
Are all changes reversible?	
In this unit of study, students continue to develop an understanding of observable properties of materials through analysis and classification of different materials. The crosscutting concepts of <i>cause and effect</i> and <i>energy and matter</i> are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in <i>constructing</i> <i>explanations</i> , <i>designing solutions</i> , and <i>engaging in argument from</i> <i>evidence</i> . Students are also expected to use these practices to demonstrate understanding of the core ideas.	Lesson 1: Observe Changes in Matter Lesson 2: Temperature and Matter

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Student Learning Objectives:	
Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object. ( <u>2-PS1-3</u> )	<ul> <li>SE/TE: uInvestigate Lab: How can you change objects?, 49 uDemonstrate Lab: How can you make something new?, 74-75</li> <li>Realize™ Digital Resources: Changing Matter&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Building Bridges; Changing Matter&gt; Lesson 3, Matter Within Objects&gt;Video&gt; Matter Within Objects; Interactivity&gt;Choices Matter; Quiz&gt;Matter Within Objects; Changing Matter&gt;Topic Close&gt;Quest</li> </ul>
Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot. (2-PS1-4)	Findings>Interactivity>Building Bridges SE/TE: uInvestigate Lab: How does heating and cooling change matter?, 55
	Realize <sup>™</sup> Digital Resources: Changing Matter>Topic Launch>Quest Kickoff>Video>Building Bridges; Changing Matter>Lesson 2, Temperature and Matter>Video>Temperature and Matter; Interactivity>Turn Up the Heat and Chill Out; Quiz>Temperature and Matter; Changing Matter>Topic Close>Quest Findings>Interactivity>Building Bridges

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Unit 4: The Earth's Land and Water	·
Unit Summary:	
Where do we find water? In this unit of study, students use information and models to identify and represent the shapes and kinds of land and bodies of water in an area and where water is found on Earth. The crosscutting concept of <i>patterns</i> is called out as an organizing concept for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in <i>developing and using models</i> and <i>obtaining, evaluating, and communicating information</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 2: Topic 3: Earth's Water and Land Lesson 2: Water on Earth Lesson 3: Map Land and Water
Student Learning Objectives	
Obtain information to identify where water is found on Earth and that it can be solid or liquid. ( <u>2-ESS2-3</u> )	<ul> <li>SE/TE: uConnect Lab: What covers most of the surface of Earth?, 80 Glaciers, 93 Quest Check-In: Describe Earth's Water, 95</li> <li>Realize<sup>™</sup> Digital Resources: Earth's Land and Water&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Map Your Hike; Lesson 1, Describe Earth's Surface&gt;Video&gt;Describe Earth's Surface; Interactivity&gt;Landforms; Quiz&gt;Describe Earth's Surface; Lesson 2,Water on Earth&gt;Video&gt;Water on Earth; Interactivity&gt;Water, Water Everywhere; Quiz&gt;Water on Earth; Earth's Land and Water&gt;Topic Close&gt;Quest Findings&gt;Interactivity&gt;Map Your Hike</li> </ul>

New Jersey Science Model Curriculum	Elevate Science
Grade 2	Grade 2 ©2019
Develop a model to represent the shapes and kinds of land and bodies of water in an area. ( <u>2-ESS2-2</u> )	SE/TE: ulnvestigate Lab: How can you make a map of a special place?, 83 ulnvestigate Lab: Where is the best place to cross the water?, 91 ulnvestigate lab: Why do map makers use different maps?, 99 Quest Check-In Lab: How far is it from here to there?, 102 Realize <sup>™</sup> Digital Resources: Earth's Land and Water>Topic Launch>Quest Kickoff>Video>Map Your Hike; Lesson 1, Describe Earth's Surface>Video>Describe Earth's Surface; Interactivity>Landforms; Quiz>Describe Earth's Surface; Lesson 2,Water on Earth>Video>Water on Earth; Interactivity>Water, Water Everywhere; Quiz>Water on Earth; Lesson 3, Map Land and Water; Video>Map Land and Water; Interactivity>Map and Go; Quiz>Map Land and Water; Earth's Land and Water>Topic Close>Quest Findings>Interactivity>Map Your Hike

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Unit 5: Changes to Earth's Land	
Unit Summary:	
In what ways do humans slow or prevent wind or water from changing the shape of the land?	This unit is addressed in the following Topic(s) and Lesson(s) in Elevate Science, Grade 2:
In this unit of study, students apply their understanding of the idea that wind and water can change the shape of land to compare design solutions to slow or prevent such change. The crosscutting concepts of <i>stability and change; structure and function;</i> and <i>the influence of</i> <i>engineering, technology, and science on society and the natural world</i> are called out as organizing concepts for these disciplinary core ideas. Students demonstrate grade-appropriate proficiency in <i>asking</i> <i>questions and defining problems, developing and using models,</i> and <i>constructing explanations and designing solutions.</i> Students are also expected to use these practices to demonstrate understanding of the core ideas.	

New Jersey Science Model Curriculum Grade 2	Elevate Science Grade 2 ©2019
Student Learning Objectives:	
	<ul> <li>SE/TE: uInvestigate Lab: How do volcanoes change Earth?, 119 uInvestigate Lab: How do mountains change?, 125 STEM Quest Check-In Lab: How does the ocean affect a coastal town?, 128</li> <li>Realize™ Digital Resources: Earth's Processes&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Save the Town!; Lesson 1, Earth Changes Quickly&gt;Video&gt;Earth Changes Quickly; Interactivity&gt;Quick Changes on Earth; Quiz&gt;Earth Changes Quickly; Lesson 2, Earth Changes Slowly; Video&gt;Earth Changes Slowly; Interactivity&gt;Slow Changes on Earth; Quiz&gt;Earth Changes Slowly; Lesson 3, People Can Change Earth&gt;Video&gt; People Can Change Earth; Interactivity&gt;How People Change Earth; uEngineer It! Interactivity&gt;Protect the House and Land; Quiz&gt;People Can</li> </ul>
	Change Earth: Earth's Processes>Topic Close>Quest Findings>Interactivity>Save the Town!

New Jersey Science Model Curriculum	Elevate Science
Grade 2	Grade 2 ©2019
Compare multiple solutions designed to slow or prevent wind or water from changing the shape of the land. (2-ESS2-1)	<ul> <li>SE/TE: uConnect Lab: Which solution is better?, 116 ulnvestigate Lab: How do plants protect fields from wind?, 131 Quest Check-In Lab: How can you protect a coastal town from erosion?, 136-137 uEngineer It!: Stop Wind Erosion, 138-139 Quest Findings!: Save the Town, 140 uDemonstrate Lab: How can you compare different solutions?, 146-147</li> <li>Realize™ Digital Resources: Earth's Land and Water&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Map Your Hike; Earth's Land and Water&gt;Topic Close&gt;Quest Findings&gt;Interactivity&gt;Map Your Hike; Earth's Processes&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Save the Town!; Lesson 3, People Can Change Earth&gt;Video&gt; People Can Change Earth; Interactivity&gt;How People Change Earth; uEngineer It! Interactivity&gt;Protect the House and Land; Quiz&gt;People Can Change Earth; Earth's Processes&gt;Topic Close&gt;Quest Findings&gt;Interactivity&gt;Save the Town!</li> </ul>

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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. (K-2-ETS1-1)	<ul> <li>SE/TE: Quest Kickoff: Save the Town!, 115 Quest Check-In Lab: How can you protect a coastal town from erosion?, 136-137 uEngineer It!: Stop Wind Erosion, 138-139 Quest Findings!: Save the Town, 140 uDemonstrate Lab: How can you compare different solutions?, 146-147</li> <li>Realize™ Digital Resources: Earth's Processes&gt;Topic Launch&gt;Quest Kickoff&gt;Video&gt;Save the Town!; Lesson 3, uEngineer It! Interactivity&gt;Protect the House and Land; Topic Close&gt;Quest Findings&gt;Interactivity&gt;Save the Town!</li> </ul>
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. (K-2-ETS1-2)	<ul> <li>SE/TE: uConnect Lab: Which solution is better?, 116 Quest Check-In: Prevent Floods, 123 Quest Check-In Lab: How can you protect a coastal town from erosion?, 136-137 uEngineer It!: Stop Wind Erosion, 138-139 Quest Findings!: Save the Town, 140 uDemonstrate Lab: How can you compare different solutions?, 146-147</li> <li>Realize™ Digital Resources: Lesson 3, uEngineer It! Interactivity&gt;Protect the House and Land; Topic Close&gt;Quest Findings&gt;Interactivity&gt;Save the Town!</li> </ul>