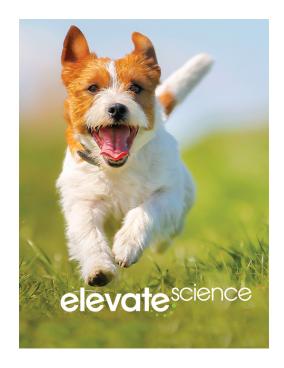
A Correlation of

Elevate Science Kindergarten, ©2019



To the



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 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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Unit 1: Weather

Unit Summary

What is the weather like today and how is it different from yesterday? In this unit of study, students develop an understanding of patterns and variations in local weather and the use of weather forecasting to prepare for and respond to severe weather. The crosscutting concepts of patterns; cause and effect; interdependence of science, engineering, and technology; and the influence of engineering, technology, and science on society and the natural world are called out as organizing concepts for the disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in asking questions, analyzing and interpreting data, and obtaining, evaluating, and communicating information. Students are also expected to use these practices to demonstrate understanding of the core ideas. Note: Unlike other science units, the Weather unit is intended to become a part of the classroom routine throughout the year. Some weather patterns are not obvious unless the students collect data over long periods of time. For example, in some locations it is sunnier during some parts of a year than others. The temperature outside will change from fall, winter, spring, to summer. Also, during some periods, the weather data should be recorded in the morning and then again in the afternoon. Students will be able to observe patterns in temperature through the course of the day. This unit is based on K-ESS2-1, K-ESS3-2, and K-2-ETS1-1.

This unit is addressed in the following Topic(s) and Lessons in Elevate Science, Kindergarten:

Topic 4: Earth's Weather

Lesson 1: Different Kinds of Weather

Lesson 2: Weather Patterns

Lesson 3: Seasons

Lesson 4: Severe Weather

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Student Learning Objectives	
Use and share observations of local weather conditions to describe	SE/TE:
patterns over time (K-ESS2-1)	uConnect Lab: How does the weather change during the day?, 106
	Connecting Concepts Toolbox: Patterns, 118
	Sun or Rain, 118
	Hot or Cold Weather, 119
	Weather in Different Places, 120
	Quest Check-In: Predict the Weather, 121
	ulnvestigate Lab: What is the weather like in different seasons?,
	123
	uDemonstrate Lab: What is the weather like?, 142-143
	Realize™ Digital Resources: Earth's Weather>Topic Launch>Quest Kickoff >Video>Chasing Storms; Song>Fun in the Weather; Coloring Activity>Fun in the Weather; Earth's Weather>Lesson 1, Different Kinds of Weather>Video>Different Kinds of Weather; Interactivity>Weather; Lesson 2, Weather Patterns>Video>Weather Patterns; Interactivity>Record the Weather; Quiz>Weather Patterns; Lesson 3, Seasons>Video>Seasons; Interactivity>Seasons; Earth's Weather>Topic Close>Quest Findings>Interactivity>Chasing Storms
Ask questions to obtain information about the purpose of weather	SE/TE:
forecasting to prepare for, and respond to, severe weather. (K-	Jumpstart Discovery, 104-105
ESS3-2)	Quest Findings: Chasing Storms, 136
	Realize™ Digital Resources: Earth's Weather> Lesson 4, Severe Weather>Video>Severe Weather; Interactivity>Report Severe Weather; Quiz>Severe Weather

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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)	SE/TE: uEngineer it! STEM Don't Blow it Away!, 114-115 Realize™ Digital Resources: Earth's Weather> Lesson 4, Severe Weather> Interactivity>Report Severe Weather; Quiz>Severe Weather
Unit 2: Pushes and Pulls	
Unit Summary	
What happens if you push or pull an object harder? During this unit of study, students apply an understanding of the effects of different strengths or different directions of pushes and pulls on the motion of an object to analyze a design solution. The crosscutting concept of cause and effect is called out as the organizing concept for this disciplinary core idea. Students are expected to 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. This unit is based on K-PS2-1, K-PS2-2, and K-2 ETS1-3.	This unit is addressed in the following Topic(s) and Lessons in Elevate Science, Kindergarten: Topic 1: Pushes and Pulls Lesson 1: Pushes and Pulls Lesson 2: Change in Movement Lesson 3: Change Movement with Pushes and Pulls

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Student Learning Objectives	
Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. (K-PS2-1)	SE/TE: Quest Kickoff: Wind Makes It Go, 2-3 uConnect Lab: How do things move?, 4 uInvestigate Lab: How can we make objects move?, 7 Engineering Toolbox: Conduct an Investigation, 9 uInvestigate Lab: How do objects move?, 13 uEngineer It!: Maze Craze!, 18-19 uInvestigate Lab: How do you roll?, 21 Quest Check-In: How does wind move my sail car?, 26 Quest Findings: Wind Makes It Go, 28 uDemonstrate Lab: How do objects change their motion?, 34-35 Realize™ Digital Resources: Pushes and Pulls>Topic Launch>Video>Wind Makes It Go; Song>Some Use Force; Coloring Activity>Some Use Force; Lesson 1, Pushes and Pulls>Video>Pushes and Pulls; Interactivity>Push and Pull; Lesson 2, Change in Movement>Video> Change in Movement; Interactivity>How Objects Move; Lesson 3, Change Movement with Pushes and Pulls>Video> Change Movement with Pushes and Pulls; Interactivity>Motion and Direction; Pushes and Pulls>Quest Findings>Interactivity>Wind Makes It Go

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Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. (K-PS2-2)	SE/TE: uInvestigate Lab: How can we make objects move?, 7 STEM Quest Check-In: How can you build your sail car?, 16-17 uEngineer It!: Maze Craze!, 18-19 uInvestigate Lab: How do you roll?, 21 Quest Check-In: How does wind move my sail car?, 26 uDemonstrate Lab: How do objects change their motion?, 34-35 Realize™ Digital Resources: Pushes and Pulls>Lesson 2, Change in Movement>Video> Change in Movement; Interactivity>How Objects Move; Lesson 3, Change Movement with Pushes and Pulls>Video> Change Movement with Pushes and Pulls; Interactivity>Motion and Direction
Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. (K-2-ETS1-3)	SE/TE: Quest Findings: Wind Makes It Go, 28 Realize™ Digital Resources: Pushes and Pulls>Quest Findings>Interactivity>Wind Makes It Go

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Unit 3: Effects of the Sun	
Unit Summary	
How can we use science to keep a playground cool in the summertime? During this unit of study, students apply an understanding of the effects of the sun on the Earth's surface. The crosscutting concepts of cause and effect and structure and function are called out as organizing concepts for this disciplinary core idea. Students are expected to demonstrate gradeappropriate proficiency in developing and using models; planning and carrying out investigations; analyzing and interpreting data; and designing solutions. Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on K-PS3-1, K-PS3-2, K-2-ETS1-1, K-2-ETS1-2, and K-2-ETS1-3.	This unit is addressed in the following Topic(s) and Lessons in Elevate Science, Kindergarten: Topic 3: Sunlight Lesson 1: The Sun Lesson 2: Sunlight and Earth's Surface
Student Learning Objectives	
Make observations to determine the effect of sunlight on Earth's surface. (K-PS3-1)	SE/TE: Quest Kickoff: Keep It Cool, 74-75 uConnect Lab: What can you observe about the sun?, 76 uInvestigate Lab: What can the sun do?, 79 uInvestigate Lab: Which objects change in the sun?, 87 Engineering Practice Toolbox: Plan an Investigation, 89 Quest Check-In Lab: Which material makes the best roof?, 92-93 Quest Findings: Keep It Cool, 94 uDemonstrate Lab: Where is it warmer?, 100-101
	Realize™ Digital Resources: Sunlight>Topic Launch>Quest Kickoff>Video>Keep It Cool; Lesson 2, Sunlight and Earth's Surface>Video>Sunlight and the Earth's Surface; Interactivity>How Can the Sun Make Temperatures Change?; Quiz>Sunlight and Earth's Surface; Sunlight>Quest Findings>Interactivity>Keep It Cool

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Use tools and materials provided to design and build a structure that will reduce the warming effect of sunlight on Earth's surface. (K-PS3-2)	SE/TE: Quest Kickoff: Keep It Cool, 74-75 uEngineer It!: Sunny Days, 84-85 Quest Check-In Lab: Which material makes the best roof?, 92-93 Quest Findings: Keep It Cool, 94 Evidence-Based Assessment, 98-99 Realize™ Digital Resources: Sunlight>Topic Launch>Quest Kickoff>Video>Keep It Cool; Sunlight> uEngineer It!>Video>Sunny Days; Sunlight>Quest Findings>Interactivity>Keep It Cool
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)	SE/TE: Quest Connection, 81 uEngineer It!: Sunny Days, 84-85 Engineering Practice Toolbox: Plan an Investigation, 89 Quest Check-In Lab: Which material makes the best roof?, 92-93 Realize™ Digital Resources: Sunlight>Topic Launch>Quest Kickoff>Video>Keep It Cool; Sunlight> uEngineer It!>Video>Sunny Days
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)	SE/TE: Quest Connection, 81 Quest Check-In: Staying Cool, 82 uEngineer It!: Sunny Days, 84-85 Quest Check-In Lab: Which material makes the best roof?, 92-93 Quest Findings: Keep It Cool, 94 Realize™ Digital Resources: Sunlight> uEngineer It!>Video>Sunny Days; Sunlight>Quest Findings>Interactivity>Keep It Cool

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Unit 4: Basic Needs of Living Things	
Unit Summary	
Where do plants and animals live and why do they live there? In this unit of study, students develop an understanding of what plants and animals need to survive and the relationship between their needs and where they live. Students compare and contrast what plants and animals need to survive and the relationship between the needs of living things and where they live. The crosscutting concepts of patterns and systems and system models are called out as organizing concepts for these disciplinary core ideas. Students are expected to demonstrate grade-appropriate proficiency in developing and using models, analyzing and interpreting data, and engaging in argument from evidence. Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on K-LS1-1, K-ESS3-1, and K-ESS2-2.	This unit is addressed in the following Topic(s) and Lessons in Elevate Science, Kindergarten: Topic 5: Needs of Living Things Lesson 1: Needs of Plants Lesson 2: Needs of Animals Lesson 3: Needs of People

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Student Learning Objectives	
Use observations to describe patterns of what plants and animals (including humans) need to survive. (K-LS1-1)	SE/TE: uConnect Lab: What if plants do not get what they need?, 148 uInvestigate Lab: How do plants get water?, 151 uInvestigate Lab: How does a plant grow and change?, 171 Quest Check-In Lab: How do caterpillars change?, 176-177 uDemonstrate Lab: What needs do pets have?, 184-185 Realize™ Digital Resources: Needs of Living Things> Topic Launch>Quest Kickoff>Video>Let's Build a Park!; Song>Living Things; Coloring Activity>Living Things; Needs of Living Things>Lesson 1, Needs of Plants>Video>Needs of Plants; Interactivity>Plants Have Needs; Lesson 2, Needs of Animals>Video> Needs of Animals; Interactivity>Locating an Animal's Needs; Lesson 3, Needs of People> Video>Needs of People; Interactivity>People Have Needs; Needs of Living Things>Topic Close>Quest Findings>Let's Build a Park!

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Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. (K-ESS3-1)	SE/TE: ulnvestigate Lab: How can you model changing the environment?, 205
	Realize™ Digital Resources: ; Environments>Lesson 1, Where Plants and Animals Live>Video>Where Plants and Animals Live; Interactivity>Dessert Environments; Lesson 2, Plants and Animals Change the Environment>Video>Plants and Animals Change the Environment; Interactivity>Living Things Affect the Environment; Quiz>Plants and Animals Change the Environment; Lesson 3, People Change the Environment>Video>People Change the Environment; Interactivity>People Affect the Environment; Quiz>People Change the Environment

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Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs. (K-ESS2-2)	SE/TE: uConnect Lab: How does a plant make a change to the place where it lives?, 190 uInvestigate Lab: How do squirrels change the land?, 199 uInvestigate Lab: How can you model changing the environment?, 205 uDemonstrate Lab: How can an animal change where it lives?, 226-227 Realize™ Digital Resources: Environments>Topic Launch>Quest Kickoff>Video> Trails for All; Environments>Lesson 2, Plants and Animals Change the Environment>Video>Plants and Animals Change the Environment; Interactivity>Living Things Affect the Environment; Quiz>Plants and Animals Change the Environment; Lesson 3, People Change the Environment>Video>People Change the Environment; Interactivity>People Affect the Environment; Quiz>People Change the Environment; Lesson 4, People Can Protect the Environment; Interactivity>Who is helping care for Earth; uEngineer It!>Video>The Problem with a Tree; Quiz>People Can Protect the Environment; Environments>Topic Close>Quest Findings>Interactivity>Trails for All

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Unit 5: Basic Needs of Humans	
Unit Summary	
How do people impact the environment as they gather and use what they need to live and grow? In this unit of study, students develop an understanding of what humans need to survive and the relationship between their needs and where they live. The crosscutting concept of cause and effect is called out as the organizing concept for the disciplinary core ideas. Students demonstrate grade-appropriate proficiency in asking questions and defining problems, and in obtaining, evaluating, and communicating information. Students are also expected to use these practices to demonstrate understanding of the core ideas. This unit is based on K-ESS3-3 and K-2 ETS1-1.	This unit is addressed in the following Topic(s) and Lessons in Elevate Science, Kindergarten: Topic 6: Environments Lesson 1: Where Plants and Animals Live Lesson 2: Plants and Animals Change Environments Lesson 3: People Change the Environment Lesson 4: People Can Protect the Environment
Student Learning Objectives	
Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. (K-ESS3-3)	SE/TE: uInvestigate Lab: How can you make something useful?, 211 What You Can Do, 214 Crosscutting Concepts Toolbox: Systems in Our World, 215 Quest Check-In Lab: How can we save our trails?, 216-217 Evidence-Based Assessment, 224-225 Realize™ Digital Resources: Environments>Topic Launch>Quest Kickoff>Video> Trails for All; Lesson 3, People Change the Environment>Video>People Change the Environment; Interactivity>People Affect the Environment; Quiz>People Change the Environment; Lesson 4, People Can Protect the Environment; Interactivity>Who is helping care for Earth; Environments>Topic Close>Quest Findings>Interactivity>Trails for All

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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)	SE/TE: Quest Kickoff: Trails for All, 188-189 uEngineer It!: The Problem with a Tree, 218-219 Quest Findings: Trails for All, 220 Realize™ Digital Resources: Environments>Topic Launch>Quest Kickoff>Video> Trails for All; Lesson 4, People Can Protect the Environment>Video>The Problem with a Tree; Environments>Topic Close>Quest Findings>Interactivity>Trails for All