

A Correlation of

# Elevate Science Modules

## Grades 6-8, ©2019



To the

# CREC NGSS Curriculum Consortium

## Scope and Sequence

### Grade 7

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**CREC NGSS Curriculum Consortium Scope and Sequence, Grade 7**

**Introduction**

This document demonstrates how the ***Elevate Science Modules ©2019*** program supports CREC NGSS Curriculum Consortium Scope and Sequence for Grade 7. 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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<b>CREC NGSS Curriculum Consortium Scope and Sequence for Grade 7</b>	<b>Elevate Science Modules Grades 6-8 ©2019</b>
<b>Bundle 1: Matter (Fireworks/Energy drinks)</b>	
(PS-MS-PS1-1) Develop models to describe the atomic composition of simple molecules and extended structures.	<b>Structure and Properties of Matter</b> <b>SE/TE:</b> 9, 36-37  <b>Atoms and Chemical Reactions</b> <b>SE/TE:</b> 40, 47
(PS-MS-PS1-2) Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.	<b>Atoms and Chemical Reactions</b> <b>SE/TE:</b> 38, 82-83, 110-111, 112-115
(PS-MS-PS1-3) Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.	<b>Atoms and Chemical Reactions</b> <b>SE/TE:</b> 99-102, 103-104, 105, 108-109
(PS-MS-PS1-4) Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.	<b>Structure and Properties of Matter</b> <b>SE/TE:</b> 63, 80-81, 82-85
(PS-MS-PS1-5) Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved.	<b>Atoms and Chemical Reactions</b> <b>SE/TE:</b> 92, 94, 109, 110-111  <b>Structure and Properties of Matter</b> <b>SE/TE:</b> 29
(PS-MS-PS1-6) Undertake a design project to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes.	<b>Energy Transfer</b> <b>SE/TE:</b> 84-87

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(PS-MS-LS1-7) Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.	<b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 7, 12, 19, 22, 24-25, 28-31
(PS-MS-ETS1-3) Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.	<b>Structure and Properties of Matter</b> <b>SE/TE:</b> 38-41  <b>Energy Transfer</b> <b>SE/TE:</b> 78
<b>Bundle 2: Ecosystems Interactions (Closed Beach/Biome in a Bottle)</b>	
(PS-MS-LS1-6) Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.	<b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 7, 12, 13, 20, 22, 24-25, 27, 28-31
(PS-MS-LS2-1) Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.	<b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 39, 40, 42, 44-45, 87, 94, 122-123, 124-127
(PS-MS-LS2-2) Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.	<b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 43, 54, 81, 85, 87, 94, 102, 108-109, 124-127
(PS-MS-LS2-3) Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.	<b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 1, 12, 13, 19, 24-25, 46, 48-49, 51, 52, 56, 59, 60, 70-73, 114

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<p>(PS-MS-LS2-4) Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.</p>	<p><b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 66, 91, 94, 100, 102, 107, 108-109, 116, 122-123, 124-127</p>
<p>(PS-MS-LS2-5) Evaluate competing design solutions for maintaining biodiversity and ecosystem services.</p>	<p><b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 107, 113, 117, 119</p>
<p>(PS-MS-ETS1-1) Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.</p>	<p><b>Changing Earth and Human Activity</b> <b>SE/TE:</b> 19</p> <p><b>Earth's Place in the Universe SE/TE:</b> 35</p>
<p>(PS-MS-ETS1-2) Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.</p>	<p><b>Relationships Within Ecosystems</b> <b>SE/TE:</b> 107, 113, 119</p>
<p><b>Bundle 3: Changing Earth Features (India/Debunking Hollywood Ideas About Changing Earth)</b></p>	
<p>(PS-MS-ESS2-1) Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.</p>	<p><b>Earth Systems SE/TE:</b> 0-1, 2-3, 8, 37, 64, 66, 68, 74, 81, 82, 84-85, 90-93</p>
<p>(PS-MS-ESS2-2) Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.</p>	<p><b>Changing Earth and Human Activity</b> <b>SE/TE:</b> 1, 4, 12, 14, 20, 22, 26, 28, 29, 31, 34, 39, 43, 44-45, 46-47</p> <p><b>Earth Systems</b> <b>SE/TE:</b> 99, 104, 105, 117, 118-119, 124, 129, 130, 141, 142-143</p>

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<p>(PS-MS-ESS2-3) Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.</p>	<p><b>Earth Systems</b> <b>SE/TE:</b> 99-101, 102, 103, 105, 106, 123-124, 142-143</p>
<p>(PS-MS-ESS3-1) Construct a scientific explanation based on evidence for how the uneven distributions of Earth’s mineral, energy, and groundwater resources are the result of past and current geoscience processes.</p>	<p><b>Changing Earth and Human Activity</b> <b>SE/TE:</b> 59, 61, 65, 79, 81, 87, 90, 92-93, 94-95, 96-99</p>
<p>(PS-MS-ESS3-2) Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.</p>	<p><b>Cycles Influencing Weather and Climate</b> <b>SE/TE:</b> 38, 43, 47, 48-49, 53, 90-91</p> <p><b>Changing Earth and Human Activity</b> <b>SE/TE:</b> 13, 20, 32-33, 46-47, 48-51</p> <p><b>Earth Systems</b> <b>SE/TE:</b> 96-97, 125, 127, 131, 146-149</p>
<p>(PS-MS-ETS1-4) Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.</p>	<p><b>Earth Systems</b> <b>SE/TE:</b> 23, 131, 146-149</p> <p><b>Changing Earth and Human Activity</b> <b>SE/TE:</b> 96-99, 145, 150-153</p>