

## Science Scope & Sequence for 2018-2019 School Year

Unit 1: Matter and Its Interactions	Unit 1 Teaching, Testing and Mastery Connect Window: August 20 - September 28	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Question:</b> How can one explain the structure, properties, and interactions of matter using the scientific method?	<b>I Can Statements</b>		<b>Physical Science Unit 1.2</b>
	I can describe the physical and chemical properties of pure substances using appropriate senses and tools.	PS1.A.2	<a href="#">Characteristics Properties of Matter</a>
	I can identify matter is anything that has mass and volume.	PS1.A.2	
	I can describe and compare the volumes of objects or substances directly, using a graduated cylinder, and/or indirectly using displacement methods.	PS1.A.2	
	I can describe and compare the masses of objects to the nearest gram using a balance.	PS1.A.2	
	I can classify the types of matter in an object into pure substances or mixtures using their specific physical properties.	PS1.A.2	
	I can identify and classify changes in matter as chemical and/or physical by describing the processes which caused the change.	PS1.A.2	
	I can describe the properties of each component in a mixture/solution and their distinguishing properties.	PS1.A.2	
	I can describe appropriate ways to separate the components of different types of mixtures.	PS1.A.2	
	I can predict how various solids behave when mixed with water.	PS1.A.2	

## Science Scope & Sequence for 2018-2019 School Year

Unit 2: Energy	Unit 2 Teaching, Testing and Mastery Connect Window: October 1 - November 2	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Question:</b> What is energy? How is it transferred and conserved?	<b>I Can Statements</b>		<b>Physical Science Unit 2</b>
	I can describe the circular motion of a moving object as the result of a force acting toward the center.	PS3.A.1	<a href="#">Kinetic Energy 2.1</a>
	I can classify different types of motion.	PS3.A.1	
	I can calculate the speed (distance/time) of a given object in motion.	PS3.A.1	
	I can interpret a line graph representing an object's motion in terms of distance over time (speed) using metric units.	PS3.A.1	
	I can identify thermal energy as the random motion (kinetic energy) of molecules or atoms within a substance.	PS3.A.1	
	I can describe the interactions of like and unlike charges.	PS3.A.2	<a href="#">Potential Energy 2.2</a>
	I can compare the effects of balanced and unbalanced forces on an object's motion.	PS3.A.2	
	I can explain that when forces are balanced, objects are at rest or their motion remains constant.	PS3.A.2	
	I can explain that a change in motion is the result of an unbalanced force acting upon an object.	PS3.A.2	
	I can explain how the acceleration of a moving object is affected by the amount of net force applied and the mass of the object.	PS3.A.2	
	I can apply scientific principles to design, construct and test a device that either minimizes or maximizes thermal energy transfer.	PS3.A.3	This will need to be some type of hands on activity. (ex: insulated box, solar cooker, and a Styrofoam cup)
	I can plan and conduct an investigation to determine the relationship among the energy transferred, the type of matter, the mass, and the change in temperature of the sample.	PS3.A.4	<a href="#">Heat &amp; Temperature 2.3</a>

## Science Scope & Sequence for 2018-2019 School Year

Unit 3: The Role of Water & Weather	Unit 3 Teaching, Testing and Mastery Connect Window: November 5 - December 21	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Questions:</b> How and Why is Earth constantly changing? What regulates weather and climate?	<b>I Can Statements</b>		<b>Earth &amp; Space Unit 3</b>
	I can design and develop a model of the water cycle.	EES2.C.1	<a href="#">Energy Transfer and The Water Cycle 3.1</a>
	I can explain how water changes state throughout the water cycle.	EES2.C.2	<a href="#">Meteorology 3.2</a>
	I can research, collect, and analyze data to track changes in the weather.	EES2.C.2	
	I can construct explanations about how air mass and pressure affects weather patterns and changes.	EES2.C.2	
	I can make predictions about weather changes under various meteorological constructs.	EES2.C.2	
	I can modify a water cycle model to show how changes in air pressure and temperature can cause changes throughout the water cycle.	EES2.C.2	

## Science Scope & Sequence for 2018-2019 School Year

Unit 4: Earth, Sun, and Moon System	Unit 4 Teaching, Testing and Mastery Connect Window: January 8 - February 15	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Question:</b> How do the sun, earth, and moon cycles affect life on Earth?	<b>I Can Statements</b>		<b>Earth &amp; Space Unit 6 &amp; 7</b>
	I can explain the cyclical pattern of seasons related to the Earth's tilt and directional angle to the sun.	ESS1.A.2	<a href="#">Rotation, Orbits, and the Seasons 6.1</a>
	I can develop and use a model of the Earth-sun-moon system.	ESS1.A.1	<a href="#">Phases 6.2</a>
	I can explain cyclic patterns of lunar phases and eclipses.	ESS1.A.1	
	I can develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.	ESS1.A.3	<a href="#">Rotation, Orbits, and the Seasons 6.1</a> <a href="#">Formation of our Solar System 7.1</a> <a href="#">Types of Galaxies 7.3</a>

## Science Scope & Sequence for 2018-2019 School Year

Unit 5 : Molecules to Organisms	Unit 5 Teaching, Testing and Mastery Connect Window: February 18 - April 5	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Question:</b> How do organisms live, grow, respond to their environment and reproduce?	I can Statements		Life Science: Cells Unit 1
	I can develop and use a model to describe the function of a cell as a whole and ways parts of the cells contribute to that function.	LS1.A.2	<a href="#">Cell Theory 1.1</a>
	I can provided evidence that organisms are made of cells and that a single cell must carry out all the basic functions of life.	LS1.A.1.	<a href="#">Structure of Life 1.2</a>

## Science Scope & Sequence for 2018-2019 School Year

Unit 6: Ecosystems	Unit 6 Teaching, Testing and Mastery Connect Window: April 8 - May 24	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Questions:</b> How do organisms live, grow, and interact with their environment? What are the effects of these interactions?	<b>I Can Statements</b>		<b>Life Science Unit 6 &amp; 7</b>
	I can use evidence to communicate the amount of matter remains the same as it moves through an ecosystem.	LS2.B	<a href="#">Energy and Ecosystems 6.1 Relationships Among Organisms 7.1</a>
	I can identify the abiotic and biotic factors that make up an ecosystem.	LS2.B	
	I can create a diagram and describe the transfer of energy from one organism to another (predator/prey, producer/consumer, parasite/host)	LS2.B	
	I can classify populations of unicellular and multicellular organisms as producers, consumers, and decomposers by the role they serve in the ecosystem.	LS2.B	
	I can explain the cause and effect of diseases on the human body.	LS2A.2	<a href="#">Biotic and Abiotic 6.2 Relationships Among Organisms 7.1</a>
	I can relate some common diseases to the organisms that cause them.	LS2A.2	
	I can differentiate between infectious and noninfectious diseases.	LS2A.2	
	I can explain the role of antibiotics and vaccines in the treatment and prevention of diseases.	LS2A.2	
	I can describe beneficial and harmful activities of organisms, including humans and explain how these activities affect organisms within an ecosystem.	LS2A.1	N/A

## Science Scope & Sequence for 2018-2019 School Year

Unit 7: Engineering Design	Unit 7 Teaching, Testing and Mastery Connect Window: April 8 - May 24	Standard	Discovery Education Reference
<b>Topic/Genre:</b>  <b>Essential Questions:</b> What is the process for developing a potential design? How can various proposed designs solutions be compared and improved?	<b>I Can Statements</b>		<b>Physical Science Unit 6</b>
	I can define the criteria and constraints of a design problem to ensure a successful solution.	ETS1.A	<a href="#">Transportation System 6.1</a>
	I can evaluate competing design solutions to determine how well they meet the criteria and constraints of the problem.	ETS1.B.1	
	I can analyze data from tests among several design solutions to identify the best options for a new solution.	ETS1.B.2	
	I can develop a model to be tested repeatedly to ensure highest design can be achieved.	ETS1.B.3	