

**DIOCESE OF HARRISBURG
SCIENCE CURRICULUM
KINDERGARTEN
Earth and Space Science**

Big Idea	Essential Questions	Concepts	Competencies	Vocabulary	PA SAS Standards	Assessment Anchor Eligible Content	Text pages or supplementary material	Date Assessed
The Universe is composed of a variety of different objects, which are organized into systems, each of which develops according to accepted physical processes and laws.	What are the predictable patterns caused by different objects in the solar system? How do objects in the universe appear and behave?	N/A	N/A	N/A	N/A	N/A		
The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of temporal and spatial scales.	How and why is Earth constantly changing?	Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. (ESS2.D)	Use and share observations of local weather conditions to describe patterns over time. (K-ESS2-1)	Sunny Changes Cloudy Cold Cool Describe Foggy Hot Observe Partly Cloudy Patterns Predict Rainy Snowy Warm Weather Windy	3.3.3.A5 3.3.4.A5	S4.A.1.1 S4.A.1.3 S4.A.2.1 S4.A.2.2 S4.A.3.1 S4.A.3.2 S4.A.3.3 S4.A.3.3.1		

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The Earth is a complex and dynamic set of interconnected systems (e.g. geosphere, hydrosphere, atmosphere, biosphere) that interact over a wide range of temporal and spatial scales.	How and why is Earth constantly changing?	Sunlight warms the Earth's surface. (PS3.B)	Make observations to determine the effect of sunlight on the Earth's surface. (K-PS3-1)	Changes Describe Earth Surface Sunlight Observe Predict	3.2.3.B3	S4.A.1.3 S4.A.2.1 S4.A.3.3 S4.D.2.1		
			Use tools and materials to design and build a structure that will reduce (or increase) the warming effect of sunlight on an area. (K-PS3-2)	Build Canopy Cool Materials Structure Sunlight Tent Tools Umbrella Warming effect	N/A	S4.A.1.3 S4.A.2.1 S4.A.2.2 S4.A.3.3 S4.B.2.1 S4.B.3.2 S4.D.2.1		

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		Plants and animals can change their environment. (ESS2.E)	Use evidence to show how plants and animals are able to change their environment to meet their needs. (K-ESS2-2)	Needs	4.1.1.A 4.1.K.D 4.6.4.A 4.8.4.C	S4.A.1.1 S4.A.1.3 S4.A.2.1 S4.A.2.2 S4.A.3.1 S4.A.3.2 S4.A.3.3		
		Sunlight warms the Earth's surface. (PS3.B)	Make observations to determine the effect of sunlight on the Earth's surface. (K-PS3-1)	Changes Describe Earth Surface Sunlight Observe Predict	3.2.3.B3	S4.A.1.2 S4.A.2.1 S4.A.3.3 S4.D.2.1		

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The Earth's surface processes affect and are affected by human activities.	How do Earth's processes and human activities affect each other?	People can make choices to reduce impact on the environment. (Ess3.C)	Describe ways to reduce impact of humans on the land, water, and air. (K-ESS3-3)	Air Choices Impact Land Water	4.5.K.D 4.5.2.C	S4.B.3.2 S4.B.3.3		
		Things that people do to live can affect the world around them. (ESS3.C)	Describe and communicate solutions to reduce impact of humans on land, water, and air. (K-ESS2-2)	Recycle Reduce Reuse Solutions	4.5.PK.d 4.5.3.D	S4.B.3.2 S4.B.3.3		
		Living things need water, air, and resources from the land. Organisms live in places that have the things they need. (Ess3.A)	Using evidence, state an argument how plants and animals can change the environment to meet their needs. (K-ESS3-1)	Argument Evidence	4.1.3.D 4.2.K.A	S4.A.1.1 S4.B.3.2 S4.B.3.3		