Grade 5 Science Curriculum

Unit:	Earth and Space Science
Big Ideas:	All organisms are made of cells and can be characterized by common aspects of their structure and functioning.
Unit Essential Questions:	How do organisms live, grow, respond to their environment, and reproduce?

Concept & Pacing	New Emphasis (Pa Core Standard)	Key Vocabulary	Essential Questions	Mini-Lessons/Activities	Instructional Materials	Assessments
Food provides animals with materials needed for body repair and growth.	3.3.7.A 3.2.7.B 3.1.7.A 3.1.7.C	Food chain Food web	How do organisms live, grow, respond to their environment, and reproduce?	Use a model to describe that energy in animal's food was once energy from the sun.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Food provides animals with materials needed for energy and to maintain body warmth and for motion.	3.3.7.A 3.2.7.B 3.1.7.A 3.1.7.C	Food chain Food web	How do organisms live, grow, respond to their environment, and reproduce?	Use a model to describe that energy in animal's food was once energy from the sun.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Animals and plants alike take in gases and water and release waste matter into the environment; animals must take in food, and plants need light and minerals.	3.3.7.A 3.2.7.B 3.1.7.A 3.1.7.C	Ecosystem Food webs	How do organisms live, grow, respond to their environment, and reproduce?	Construct and communicate models of food webs that demonstrate the transfer of matter and energy among organisms within an ecosystem.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Organisms can survive only in environments in which their particular	3.3.7.A 3.2.7.B	Researchable Species Web of life	How and why do organisms interact with their environment and what are the effects of these interactions?	Ask researchable questions about the ways organisms obtain matter and energy across multiple and varied ecosystems.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments

needs are met.						

Unit:	Earth and Space Science
Big Ideas:	Earth's Place in the Universe, Earth's Systems, Earth and Human Activity
Unit Essential Questions:	What is the universe, and what is Earth's place in it? How and why is Earth constantly changing?

Concept & Pacing	New Emphasis (Pa Core Standard)	Key Vocabulary	Essential Questions	Mini-Lessons/Activities	Instructional Materials	Assessments
Earth's place in the universe	3.3.8.B1	Apparent brightness Earth Relative distance Stars Sun	What is the universe, and what is Earth's place in it?	Support an argument that the apparent brightness of the sun and stars is due to their relative distances from Earth.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's place in the universe	3.3.5.B1	Data Graphical display Patterns Representation Shadows	What is the universe, and what is Earth's place in it?	Represent data in graphical displays to reveal patterns of daily changes in the length and direction of shadows, day and night, and seasonal appearance of stars in the sky.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.4.A4 3.3.4.A5	Atmosphere Biosphere Chemical change Energy flow Geosphere Hydrosphere Model Physical change	How and why is Earth constantly changing?	Construct and analyze models to describe systems interactions among the geosphere, hydrosphere, atmosphere, and biosphere.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.4.A4 3.3.4.A5	Atmosphere Biosphere Chemical change Energy flow Geosphere Hydrosphere Model Physical change	How and why is Earth constantly changing?	Through the creation of a model, explain that the chemical and physical processes that cycle earth materials and form rocks.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.4.A4 3.3.4.A5	Atmosphere Biosphere Geosphere Hydrosphere	How and why is Earth constantly changing?	Develop a model to describe the ways the geosphere, hydrosphere, and biosphere interact. This could include the influence of atmosphere on landforms and ecosystems though weather and climate,	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments

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				mountain ranges on winds and clouds, etc.		

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Earth's Systems	3.3.4.A4 3.3.4.A5	Atmosphere Biosphere Geosphere Hydrosphere	How and why is Earth constantly changing?	Develop a model to describe the ways the geosphere, hydrosphere, and biosphere interact.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.5.A5 3.3.6.A5	Weather	How and why is Earth constantly changing?	Utilizing observations and data, explain the patterns of weather in a given location.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.6.A4	Distribution	How and why is Earth constantly changing?	Using real time data, graph amounts of water in various reservoirs to provide evidence about the distribution of water on earth.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth's Systems	3.3.5.A4 3.3.6.A4 3.3.8.A4	Atmosphere Precipitation Transpiration Water cycle Water system	How and why is Earth constantly changing?	Investigate movement of water in the Earth's systems and research and develop models for the cycling of water.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments
Earth and Human Activity	4.3..10.A	Atmosphere Human impact Research Resources	How do Earth's processes and human activities affect each other?	Research and communicate how communities are using science to protect resources and environments.	FOSS Mystery Science Nearpod Generation Genius	Formative and summative unit assessments

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Unit:	
Big Ideas:	
Unit Essential Questions:	

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