	Content Statement	I Can…	Key Vocabulary
The Atmosphere (ESS)	1. The atmosphere is made up of air. **NOTE**: Students will not be assessed on the differences between mass and weight until Grade 6.	-Measure the speed, direction, and temperature of the wind by using windsocks, weather vanes, thermometers or simple anemometers. -Investigate weather events that are related to wind (e.g., tornadoes, hurricanes). -Monitor weather changes to determine/document wind patterns. -Create an experiment to illustrate that air can be weighed and takes up space (has volume). -Explain that heating and cooling of air (transfer of energy) results in movement of air (wind).	• Wind • Air • Transfer of energy • Weather vane • Wind patterns • Atmosphere • Direction • Speed • Volume • Windsocks • Thermometer • Investigate • Anemometer • Temperature

For further explanation and details visit the "Science Revised Academic Content Standards (2010) and Model Curriculum Development" on the ODE website.

	Content Statement	I Can…	Key Vocabulary
	2. Water is present in the air.	-Investigate the different states of water (in weather events, nature, and/or classroom investigations) including water vapor (e.g., clouds, steam, fog, hail, snow, and sleet). -Experiment with the concepts and causes of condensation and evaporation. -Explore and discuss (not memorize) the different parts of the water cycle. -Relate the different characteristics of clouds to the weather they cause. -Experiment with different conditions in order to cause condensation and evaporation. -Collect, document, draw conclusions from, and discuss data collected from the natural environment as it relates to condensation and evaporation. -Explain how pollution/contamination can enter waterways through precipitation, evaporation, and condensation.	• Water vapor • Condensation • Evaporation • Clouds • Water cycle • Contamination/ Pollution • Investigate • States of water • Weather • Natural environment • Precipitation • Air

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	Content Statement	I Can…	Key Vocabulary
The Atmosphere (ESS)	3. Long- and short-term weather changes occur due to changes in energy. **NOTE**: Discussion of energy at this grade level should be limited to observable changes. **NOTE**: Density and convection should not be introduced at this grade level.	-Consistently measure air temperature, air pressure, wind speed and direction, and precipitation to determine weather patterns and fronts. -Measure, collect, and document weather data over a long period of time. -Connect weather data with observable forms of energy (e.g., wind causes a sailboat to move, the sun can heat the sidewalk, etc.). -Investigate the connection between weather and energy. -Recognize the connection between the heating and cooling of water, air, and land (from sunlight) are directly related to wind, evaporation, condensation, freezing, thawing and precipitation.	• Weather • Fronts • Evaporation • Condensation • Precipitation • Air pressure • Freezing • Thawing • Investigate • Long/short term weather changes • Energy • Air temperature • Temperature • Weather patterns • Wind
Interactions within Habitats (LS)	4. Living things cause changes on Earth. **NOTE**: At this grade level, discussion is limited to changes that can be easily observed.	-Conduct investigations that document changes (very noticeable or slightly noticeable, fast or slow) in the environment caused by living things (e.g, moles tunneling in a lawn, beavers building dams, plants growing in cracks of rocks, etc.). -Describe the interactions between living and non-living things that make up the environment. -Use maps or charts (digital or 2-D) to document the location of specific types of living things found in the local area. -Explore the impact and actions of living things (not just humans) on the environment. -Observe earthworm compost bins, ant farms and weeds growing on vacant lots.	• Environment • Living things • Non-living things • Compost • Interactions

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	Content Statement	I Can…	Key Vocabulary
Interactions within Habitats	5. Some kinds of individuals that once lived on Earth have completely disappeared, although they were something like others that are alive today.	-Examine fossils to determine that some look similar to plants and animals that are alive today, while others are very different from anything alive today. -Describe extinction as the disappearance of the last member of a living thing's kind and occurs because their basic needs were no longer met due to a change in their living conditions. -Provide examples of things once living on Earth that have completely disappeared. -Provide examples of things once living on Earth that are something like others that are alive today (e.g., horses). -Compare an array of organisms, both extinct and still in existence based upon research about the organism and its environment (e.g., elephant vs. mammoth). -Use a variety of techniques (photographs, video, websites, books, museums, etc.) to research and visualize past environments and the organisms that lived in them.	• Fossils • Extinct • Environment • Research • Living things • Basic needs • Organism
Changes in Motion	6. Forces change the motion of an object.	-Experiment to determine how forces change the movement (speed up, slow down, change direction or stop) of an object. -Explore how forces may act when an object is in contact with another object (pushing or pulling). -Investigate how forces many act when objects are NOT in contact with each other (magnets, gravity, static electricity). -Test how larger forces can cause large changes in motion than smaller/weaker forces. -Investigate ways to change the motion of objects. -Investigate how non-contact forces can affect motion.	

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