

IES Correlation to Tennessee's Curriculum Science Standards

	Climate and Weather	Dynamic Planet	Energy Resources	Fossils	Materials and Minerals	Oceans	Rocks and Landforms	Soil	Water as a Resource
Earth and Space Science									
Content Standard: 7.0 Earth and Its Place in the Universe The student will investigate the structure of the universe.									
Learning Expectations:									
7.1 Recognize the basic features of the universe.									
7.2 Investigate the relative distances between objects in space.									
7.3 Describe the positional relationships among the earth, moon, and sun.									
7.4 Understand that gravity is the force that keeps planets in orbit around the sun and governs movement in the solar system.									
7.5 Explore the role of technology and careers associated with the study of space									
Performance Indicator State: As documented through state assessment,									
<i>at Level 1, the student is able to</i>									
6.7.spi.1 distinguish between a day, month, and year on earth based on the movements of the earth, sun, and moon.									
6.7.spi.2 identify the force that pulls objects toward the earth.									
6.7.spi.3 differentiate between planets according to specific characteristics.									
<i>at Level 2, the student is able to</i>									
6.7.spi.4 categorize the components of the universe (i.e. stars, planets, comets, asteroids, meteors).									
6.7.spi.5 differentiate between a solar and a lunar eclipse.									
<i>at Level 3, the student is able to</i>									
6.7.spi.7 predict the type of tide									

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produced by the different positions of the earth and moon system.									
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Performance Indicator Teacher:

As documented through teacher observation,

at Level 1, the student is able to

6.7.tpi.1 make a model of the solar system that emphasizes the correct order of the planets and their distance from the sun.									
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at Level 2, the student is able to

6.7.tpi.2 draw the position of the sun, earth, and moon during eclipses and tidal conditions.									
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6.7.tpi.3 diagram the relationship of the earth to the sun to account for earth's seasons.									
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6.7.tpi.4 research and communicate information about the composition, surface features, and conditions of all the planets in the solar system.									
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6.7.tpi.5 collect information about stars and make inferences concerning their impact on our galaxy.									
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6.7.tpi.7 construct a timeline of the history of space exploration.									
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at Level 3, the student is able to

6.7.tpi.8 investigate and describe how tides are produced and when these occur.									
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6.7.spi.9 research a career related to earth/space systems (e.g., astronomer, astronaut, aerospace engineer).									
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Content Standard: 8.0 Atmospheric Cycles

The student will investigate the relationships among atmospheric conditions, weather, and climate.

Learning Expectations:

8.1 Interpret the relationship between weather and the water cycle.	X								X
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8.2 Investigate the relationship between the collection of weather data and its interpretation.	X								
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8.3 Explain how changes in oceanic and atmospheric conditions affect climate.	X					X			
8.4 Explore careers related to meteorology.									

Performance Indicators State:

As documented through state assessment,

at Level 1, the student is able to

7.8.spi.1 determine how temperature affects evaporation, condensation, and precipitation.	X					X			X
7.8.spi.2 identify the detailed features of the water cycle.	X					X			

at Level 2, the student is able to

7.8.spi.3 analyze data and make predictions about weather.	X								
at Level 3, the student is able to									

7.8.spi.4 interpret weather data using a weather map.	X								
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Performance Indicators Teacher:

As documented through teacher observation,

at Level 1, the student is able to

7.8.tpi.1 diagram the basic processes that control the water cycle.	X								
7.8.tpi.2 collect and record data on weather conditions.	X								

at Level 2, the student is able to

7.8.tpi.3 collect and interpret weather data with appropriate meteorological instruments.	X								
7.8.tpi.4 predict and explain the impact of catastrophic events on climate.	X	X							

at Level 3, the student is able to

7.8.tpi.5 collect data and make predictions using weather maps.	X								
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Content Standard: 9.0 Earth Features

The student will understand that the earth has many geological features that are constantly changing.

Learning Expectations:

9.1 Understand the characteristics of the earth's layers and the location of		X					X		
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major plates.									
9.2 Describe the forces and processes that shape the earth.		X					X		

Eighth Grade Benchmarks

Performance Indicators State: As documented through state assessment,

at Level 1, the student is able to

8.9.spi.1. label a cross-section of the earth.		X					X		
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At Level 2, the student is able to

8.9.spi.2. Identify the major plates of the world.		X							
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8.9.spi.3 differentiate between the theory of continental drift and plate tectonics.		X							
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At Level 3 the student is able to

8.9.spi.4. deduce plate movements as the major cause of geological events.		X							
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Performance Indicators Teacher: As documented through teacher observation,

at Level 1, the student is able to

8.9.tpi.1. build a model that depicts the earth's layers.		X							
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At Level 2, the student is able to

8.9.tpi.2. draw or construct a model of the major plates of the world.		X							
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8.9.tpi.3. Construct a large jigsaw puzzle landmass from cutouts of the continents by matching continental boundaries.		X							
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At Level 3, the student is able to

8.9.tpi.4 design models that illustrate continental drift and plate tectonics.		X							
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Content Standard: 10.0 Earth Resources

The student will investigate the properties, uses, and conservation of the earth's resources.

Learning Expectations:

10.1 Investigate the characteristics of minerals and their uses					X		X		
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10.2 Describe the rock cycle.		X					X		
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10.3 Investigate how human activities affect the earth's land, oceans, and atmosphere.	X	X	X		X	X	X	X	X
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10.4 Examine different types of energy resources and their importance to man.			X						
10.5 Analyze approaches to conserving energy and natural resources.	X		X		X	X		X	X

Eighth Grade Benchmarks

Performance Indicators State: As documented through state assessment,

at Level 1, the student is able to

8.10.spi.1. Identify factors that cause rocks to break down.	X					X	X	X	
8.10.spi.2. distinguish between renewable and nonrenewable resources.			X		X		X	X	X

at Level 2, the student is able to

8.10.spi.3 identify various energy resources (e.g. fossil fuels, solar, nuclear).			X						
8.10.spi.4. distinguish among sedimentary, igneous, and metamorphic rocks.							X		
8.10.spi.5. Identify human activities as having the potential to be helpful or harmful to the environment	X		X		X	X	X	X	X

At Level 3, the student is able to

8.10.spi.6 identify rocks and minerals given a table of physical properties.					X				
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Performance Indicators Teacher:

As documented through teacher observation

at Level 1, the student is able to

8.10.tpi.1. investigate and describe factors that cause rocks to break down.							X	X	
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At Level 2, the student is able to

8.10.tpi.2 diagram and explain the processes of the rock cycle.							X		
8.10.tpi.3. draw and label a simple soil profile.								X	
8.10.tpi.4. depicting the stages of fossil formation				X					
8.10.tpi.5 determine the relative age of various fossils found in a rock				X					

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column.									
8.10.tpi.6 design a poster depicting alternative sources of energy			X						
8.10.tpi.7research the effects of human activities on the environment.	X		X		X	X	X	X	X
<i>At Level 3, the student is able to</i>									
8.10.tpi.8 Identify rocks and mineral samples using simple property tests and a classification key.					X				
8.10.tpi.9 explore the impact of widespread use of energy resources.			X						
8.10.tpi. research the economic and industrial use of rocks and minerals.			X		X		X	X	