Proficiency Standards:

Name:_____
Class Period:_____

Standard: **S6E1.c** Obtain, evaluate, and communicate information about current scientific views of the universe and how those views evolved. Analyze and interpret data to compare the planets in terms of: size relative to Earth, surface and atmospheric features, relative distance from the sun, and ability to support life.

Levels	**Learning Targets**	**Prior to Instruction ✓ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ✓ (TEACHER)**
Level 4	1. I can use mathematical and computational thinking to create and explain a scale model (physical, drawn, or digital) to represent the solar system OR construct an argument to determine the possibility of life elsewhere in the universe 2. I can develop and use a model to explain the interaction of gravity and inertia that governs the motion of objects in the solar system (S6E1c)				
Level 3	1. I can analyze and interpret data to compare planet size relative to Earth 2. I can analyze and interpret data to compare the surface and atmosphere of each planet 3. I can analyze and interpret data to compare the distance of each planet from the sun, compared to Earth 4. I can analyze and interpret data to compare each planet's ability to support life				
Level 2	1. I can recognize or recall specific vocabulary a. Rotation b. Revolution c. Orbit 2. I can describe the difference between rotation and revolution 3. I can list the planets in order of their distance from the sun				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard*: S6E2.a* *Obtain, evaluate, and communicate information about the effects of the relative positions of the Earth, moon and sun. Develop and use a model to demonstrate the phases of the moon by showing the relative positions of the sun, Earth, and moon.*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can collect, graph, and analyze data about how the position of objects in the solar system impacts life on Earth. *Example: the causes of seasons and tides*				
Level 3	1. I can develop and use a model to demonstrate the phases of the moon by showing the relative positions of the sun, Earth, and moon.				
Level 2	1. I can recognize or recall specific vocabulary a. Solar Eclipse b. Lunar Eclipse 2. I can identify the phases of the moon by shape and location on a diagram 3. I can identify eclipses by moon phase and location on a diagram 4. I can construct an explanation of the cause of solar and lunar eclipses (S6E2b)				
Level 1	I can complete Level 2 learning targets with help.				

Proficiency Standards:

Name:_____
Class Period:_____

Standard: *S6E2.c* *Obtain, evaluate, and communicate information about the effects of the relative positions of the Earth, moon and sun. Analyze and interpret data to relate the tilt of the Earth to the distribution of sunlight throughout the year and its effect on seasons.*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can design an investigation of how global warming and the greenhouse effect impacts global agriculture and tourism in both Northern and Southern Hemispheres including factors such as La Nina and El Nino				
Level 3	A. I can analyze and interpret data to relate the tilt of the Earth to the distribution of sunlight throughout the year and its effects of seasons				
Level 2	A. I can recognize or recall specific vocabulary a. Equinox b. Solstice c. Revolution d. Relative position B. I can identify the season in each hemisphere by its location in Earth's orbit C. I can Recognize that Earth's axis is tilted at 23.5 degrees and the influence of the tilt on seasons				
Level 1	I can complete Level 2 learning targets with help.				

Proficiency Standards:

Name:_____
Class Period:_____

Standard:S6E3.b Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes. Plan and carry out an investigation to illustrate the role of the sun's energy in atmospheric conditions that lead to the cycling of water. (Clarification statement: The water cycle should include but is not limited to evaporation, condensation, precipitation, transpiration, infiltration, groundwater, and runoff.)

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can identify a problem related to water issues; for example flooding, water scarcity or drought, and design a possible solution for the problem. Resources to use can include but are not limited to articles and videos				
Level 3	A. I can plan and carry out an investigation to illustrate the role of the sun's energy in atmospheric conditions that leads to the cycling of water				
Level 2	A. I can recognize or recall specific vocabulary a. Evaporation b. Condensation c. Precipitation d. Transpiration e. Infiltration f. Groundwater g. Runoff B. I can label a diagram of the different stages of the water cycle C. I can recognize the distribution of water across Earth compared to land and the distribution of salt water compared to fresh water				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard: ***S6E4.b*** *Obtain, evaluate, and communicate information about how the sun, land, and water affect climate and weather. Plan and carry out an investigation to demonstrate how energy from the sun transfers heat to air, land and water at different rates. (Clarification statement: Heat transfer should include the processes of conduction, convection and radiation.)*

Levels	**Learning Targets**	**Prior to Instruction** ☑ **(Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction** ☑ **(TEACHER)**
Level 4	A. I can analyze and interpret data from maps to draw conclusions about weather patterns in different cities and/or regions				
Level 3	A. I can plan and carry out an investigation to demonstrate how energy from the sun transfer heat to air, land, and water at different rates				
Level 2	A. I can recognize or recall specific vocabulary a. Conduction b. Convection c. Radiation B. I can identify given situations as examples of conduction, convection, or radiation I can understand the difference between the three methods of heat transfer: conduction, convection, and radiation				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard: ***S6E4.d*** Obtain, evaluate, and communicate information about how the sun, land, and water affect climate and weather. Construct an explanation of the relationship between air pressure, fronts, and air masses and meteorological events such as tornadoes and thunderstorms.

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	3. I can analyze and interpret data to predict hurricane strength over time 4. I can analyze and interpret data to predict tornadoes based on atmospheric conditions				
Level 3	5. I can construct an explanation of the relationship between air pressure, weather fronts, and air masses for the formation of thunderstorms Learning 6. I can construct an explanation of the relationship between air pressure, weather fronts, and air masses for the formation of tornadoes				
Level 2	4. I can recognize or recall specific vocabulary a. air mass, front, tornado, thunderstorm, air pressure 5. I can identify where the different types of air masses form 6. I can identify the type of weather created by the different types of weather fronts: a. cold front b. warm front c. stationary front d. occluded front				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard: ***S6E5.a*** *Obtain, evaluate, and communicate information to show how Earth's surface is formed. Ask questions to compare and contrast the Earth's crust, mantle, inner and outer core, including temperature, density, thickness, and composition.*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can research previous attempts made to drill to the mantle and explain the scientific reasoning used in the proposal (such as why one would drill through oceanic crust as opposed to continental crust) B. I can develop and use a scale model of the layers of the earth to construct an explanation of how changes in density, temperature, and composition influence the composition of the layers				
Level 3	A. I can ask questions to compare and contrast the Earth's crust, mantle, inner and outer core, including temperature, density, thickness, and composition				
Level 2	A. I can recognize or recall specific vocabulary a. Inner core b. Outer core c. Density d. Crust e. Mantle B. I can label the layers of the Earth on a diagram C. I can recognize that more dense substances will sink below less dense substances				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard*: S6E5.c* *Obtain, evaluate, and communicate information to show how Earth's surface is formed. Construct an explanation on how to classify rocks by their formation and how rocks change through geologic processes in the rock cycle.*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	I can analyze and interpret data about the processes used to create rocks that the student has not previously seen I can analyze local geographic features and model their connection to the rock cycle (Stone Mountain, Bellwood Quarry, Arabia Mountain)				
Level 3	B. I can construct an explanation of how to classify rocks by their formation and how rocks change through geologic processes in the rock cycle				
Level 2	D. I can recognize or recall specific vocabulary a. Weathering b. Sedimentary c. Igneous d. Metamorphic e. Minerals f. Erosion g. Deposition E. I can recognize that rocks are composed of minerals F. I can differentiate between weathering, erosion, and deposition G. I can differentiate between chemical and mechanical weathering H. I can identify the different agents of erosion				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard*: S6E5.f* *Obtain, evaluate, and communicate information to show how Earth's surface is formed. Construct an explanation of how the movement of lithospheric plates (convergent boundary, divergent boundary, transform boundary), called plate tectonics, is due to convection currents below the lithosphere, and can cause major geologic events such as earthquakes and volcanic eruptions.*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can conduct an extension of the Argument-Driven Inquiry lab to further investigate the relationship between the patterns of the locations of volcanoes and earthquakes as they relate to plate boundaries (such as an area of a double or triple junction of intersections of plate boundaries) B. I can ask questions and investigate the history of the theory of plate tectonics. a. Who contributed to our current understanding? b. Why didn't scientists believe Alfred Wegener's hypothesis of continental drift? c. How did it become a theory? d. What role did Harry Hess play? e. How does this help you understand the nature of science?				
Level 3	C. I can construct an explanation of how the movement of lithospheric plates, called plate tectonics, can cause major geologic events such as earthquakes and volcanic eruptions (Include convergent, divergent, and transform boundaries)				
Level 2	I. I can recognize or recall specific vocabulary a. lithospheric plate, convection currents, convergent boundary, divergent boundary, transform boundary, deposition J. I can recognize that rocks are composed of minerals K. I can differentiate between weathering, erosion,				

	and deposition L. I can differentiate between chemical and mechanical weathering M. I can identify the different agents of erosion				
Level 1	I can complete Level 2 learning targets with help				

Proficiency Standards:

Name:_____
Class Period:_____

Standard*: S6E6.c* *Obtain, evaluate, and communicate information about the uses and conservation of various natural resources and how they impact the Earth. Construct an argument evaluating contributions to a rise in global temperatures over the past century. (Clarification statement: Tables, graphs, and maps of global and regional temperatures, and atmospheric levels of greenhouse gases such as carbon dioxide and methane, should be used as sources of evidence.)*

Levels	**Learning Targets**	**Prior to Instruction ☑ (Student)**	**Pretest Grade**	**Post Test Grade**	**After Instruction ☑ (TEACHER)**
Level 4	A. I can construct explanations and design solutions to decrease future increases in global temperatures B. I can construct an explanation and design a solution for the replacement of nonrenewable natural resources with renewable/sustainable natural				
Level 3	A. I can construct an argument evaluating contributions to the rise in global temperatures over the past century				
Level 2	A. I can recognize or recall specific vocabulary a. Carbon dioxide b. Methane c. Greenhouse gas B. I can identify factors that raise global temperatures C. I can identify renewable and nonrenewable resources				
Level 1	I can complete Level 2 learning targets with help				

Learning Reflection

Example:

Based upon my proficiency scale, I believe I am strong in these areas within the unit because….
I believe I need to work on _____ because……. I am going to…. so I can reach level __.

I Still Have Questions About :