

Science Standards: Fourth Grade

STANDARD I: Students will understand that water changes state as it moves through the water cycle.			
<p>Learning Targets</p> <ul style="list-style-type: none"> • I can describe the water cycle and relate it to Utah. • I can describe the different states of water as it pertains to the water cycle. (<u>Water Vapor/Gas, Ice/solid, water/liquid</u>) • I can model the process of <u>precipitation, condensation, evaporation, and collection.</u> • I can describe the relationship between heat energy (sun) as it relates to the water cycle. • I can identify the different locations that collect water on Earth and relate it to Utah. (<u>oceans, atmosphere, fresh surface water, snow, ice, and groundwater</u>). 	<p>Academic Vocabulary</p> <p>vapor, precipitation, evaporation, clouds, dew, condensation, temperature, water cycle</p>	<p>Questions Stems</p> <p>How do we get the water we use every day?</p>	<p>Possible Assessments</p> <p>Projects/Investigations: (ILO 1 Scientific Process and Thinking)</p> <p>EIE kit: Water, Water Everywhere: Filtering water Water Cycle Foldables Water Cycle Diorama</p>
STANDARD II: Students will understand that the elements of weather can be observed, measured, and recorded to make predictions and determine simple weather patterns.			
<p>Learning Targets</p> <ul style="list-style-type: none"> • I can Identify basic cloud types (<u>cirrus, stratus, cumulus</u>) • I can use weather instruments to collect and record data over time. (<u>barometer/air pressure, anemometer/wind speed, wind vane/wind direction, thermometer/air temperature, rain gauge/precipitation, hygrometer/humidity</u>) • I can predict weather and justify my prediction with observable evidence 	<p>Academic Vocabulary</p> <p>atmosphere, meteorologist, freezing, cumulus, stratus, cirrus, air pressure, thermometer, air temperature, wind speed, forecast, severe, phenomena, precipitation, seasonal, accuracy, barometer, rain gauge, components</p>	<p>Questions to Ask Students:</p> <p>How does weather affect your behavior?</p>	<p>Possible Assessments</p>
STANDARD III: Students will understand the basic properties of rocks, the processes involved in the formation of soils, and the needs of plants provided by soil.			
<p>Learning Targets</p>	<p>Academic Vocabulary</p> <p>mineral, weathering, erosion,</p>	<p>Questions to Ask Students:</p>	<p>Possible Assessments</p>

<ul style="list-style-type: none"> • I can classify rocks and minerals based on their properties. (<u>streak, luster, hardness, texture, color, cleavage crystal structure, layers</u>). • I can identify and sort the common rocks found in Utah into the three rock types. Ex: <u>Sedimentary: (conglomerate, sandstone, limestone, shale)</u> <u>Igneous: (obsidian, granite, basalt, pumice)</u> <u>Metamorphic: (gneiss, schist, marble, slate)</u> • I can describe the process of weathering and erosion and relate it to soil production. • I can create a soil profile and describe the components of soil. • I can describe how plants use soil. 	sedimentary, igneous, metamorphic, topsoil, subsoil, bedrock, organism, freeze, thaw, profile, nonliving, structural support, nutrients	How do rocks and minerals impact our daily lives? Can we survive without soil?	
STANDARD IV: Students will understand how fossils are formed, where they may be found in Utah, and how they can be used to make inferences..			
Learning Targets <ul style="list-style-type: none"> • I will hypothesize where Earth's source of heat comes from. • I will plan and carry out investigations in order to understand the misconceptions about heat sources. • I will plan and carry out investigations in order to provide evidence of mechanical energy. 	Academic Vocabulary infer, environments, climate, dinosaur, preserved, extinct, extinction, impression, fossil, prehistoric, mineral, organism, replacement, trilobite, sedimentary, tropical	Questions to Ask Students What can fossils tell us about the past?	Possible Assessments <ul style="list-style-type: none"> • Compare and contrast graphic organizer • KWL Chart • Cause and Effect
STANDARD V: Students will understand the physical characteristics of Utah's wetlands, forests, and deserts and identify common organisms for each environment.			
Learning Targets <ul style="list-style-type: none"> • I can identify the physical characteristics of specific environments in Utah. (Deserts, wetlands, and forests.) • I can identify both plant and animal adaptations that allow survival in their current environment. (Structural and Behavioral Adaptations) • I can classify both plants and animals using a simple classification scheme 	Academic Vocabulary wetland, forest, desert, adaptation, deciduous, coniferous, invertebrate, vertebrate, bird, amphibian, reptile, fish, mammal, insect, hibernation, migration	Questions to Ask Students How do plants and animals adapt to the unique habitats found in Utah?	Possible Assessments

