PETROLEUM MUSEUM

Earth Science
Grades 3 - 6

In this trunk you will give your students a hands-on understanding of the rock cycle, make a model of the earth using clay, find out what makes a volcano erupt, and create landforms through weathering and erosion. These TEKS aligned lessons and activities are designed to help you dig deeper into earth science while having fun with the experiments. The trunk includes the lesson plans and all of the materials you will need for each experiment. We are so excited for you and your students to dig deep into earth science!

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3 - 6 EARTH SCIENCE TRUNK MASTER TEKS ALLIGNMENT:

Science, 3rd Grade

(3) Earth and Space
(3.7.A) Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains.
(3.7.B) Investigate rapid changes in the earth's surface such as volcanic eruptions, earthquakes, and landslides.

Process Standards
(3.2.D) Analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations.
(3.2.F) Communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.
(3.3.A) In all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student.
(3.3.C) Represent the natural world using models such as volcanoes or sun, earth, and moon system and identify their limitations, including size, properties and materials.
(3.4.B) Use safety equipment as appropriate, including safety goggles and gloves.

Science, 4th Grade

(3) Earth and Space
(4.7.B) Observe and identify slow changes to earth's surface caused by weathering, erosion, and deposition from water, wind, and ice.

Process Standards
(4.2.A) Plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment and technology to answer his/her questions.
(4.3.A) In all fields of science, analyze, evaluate, and critique explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student.
(4.4.B) Use safety equipment as appropriate, including safety goggles and gloves.

Science, 5th Grade

(3) Earth and Space
(3.7.B) Investigate rapid changes in the earth's surface such as volcanic eruptions, earthquakes, and landslides.
(5.7.B) Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, and ice.

Process Standards
(5.2.B) Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology.
(5.2.F) Communicate valid conclusions in both written and verbal forms.
(5.3.A) In all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence to those scientific explanations, so as to encourage critical thinking by the student.
(5.4.B) Use safety equipment, including safety goggles and gloves.

Science, 6th Grade

(3) Earth and Space

(6.10.A) Build a model of the earth to illustrate the structural layers of Earth, including the inner core, outer core, mantle, crust, asthenosphere, and lithosphere.

(6.10.B) Classify rocks as metamorphic, igneous, or sedimentary by the processes of their formation.

(6.10.C) Identify the major tectonic plates, including Eurasian, African, Indo-Australian, Pacific, North American, and South American.

(6.10.D) Describe how plate tectonics causes major geological events such as ocean basins, earthquakes, volcanic eruptions, and mountain building.

Process Standards

(6.2.A) Plan and implement experimental investigations by making observations, asking well-defined questions, formulating testable hypotheses, and using appropriate equipment and technology.

(6.2.E) Analyze data to formulate reasonable explanations, communicate valid conclusions supported by the data, and predict trends.

(6.3.A) In all fields of science, analyze, evaluate, and critique scientific explanations by using empirical evidence, logical reasoning, and experimental and observational testing, including examining all sides of scientific evidence of those scientific explanations, so as to encourage critical thinking by the student.

(6.3.B) Use models to represent aspects of the natural world such as a model of Earth's layers.

(6.3.C) Identify advantages and limitations of models such as size, scale, properties, and materials