

MINERAL TESTING

GRADE LEVELS 3rd, 6th, & 8th-12th

DESCRIPTION

The Weinman Mineral Gallery has a dedicated area to the physical properties of minerals, including a unique fluorescent mineral display. Learn how to classify minerals based on Moh's Hardness Scale as well as other physical properties of minerals, using the five senses. Program will run for two hours.

30 MINUTES - GALLERY TIME

Rock Cycle Wall, Mineral Properties, Rocks vs. Minerals, Mining in Georgia, Minerals in our Lives area

30 MINUTES - LAB

- Define minerals and their varying properties
- Introduce how a mineral is classified
- Discuss Mohs Hardness Scale and its purpose
- Allow students to test and identify as many unknowns as time allows

30 MINUTES

Gem Panning and Careers in Geology

30 MINUTES

Store, Foucault Pendulum & Apatosaurus

TAKE HOME ITEMS

Keep the gemstones found at Gem Panning

GEORGIA PERFORMANCE STANDARDS

S3CS7, S3CS8, S3E1a-b, S3E1d, S6E5a-b, S6E5d, S8P1f, SCSH2a-b, SCSH3, SCSH4a-b, SG2a-d, SC1b, SG5a-c, SES1a-b, SES1e, SES2d

PLATE TECTONICS WHERE THE ACTION IS

GRADE LEVELS 5th, 6th, & 9th-12th

DESCRIPTION

The Earth's crust is continually shifting, crashing, and spreading, creating various geologic happenings. Explore our restless earth through the many displays in the Weinman Mineral Gallery, including our Magic Planet and our large floor model of the cross section of Earth. Program will run for two hours.

30 MINUTES - GALLERY TIME

Anatomy of the Planet, Earthquake & Volcano Displays, Iris Display (shows current seismic activity worldwide), The Magic Planet, Rock Cycle Wall

30 MINUTES - LAB

- Study plate movement from Pangaea to 50 million years into the future
- Discuss how planet Earth's crust is divided into numerous plates that move
- Students will understand through various manipulatives: plate movement, subduction zones, rift valleys, convergent, divergent, transform boundaries and hot spots

30 MINUTES

Gem Panning and Careers in Geology

30 MINUTES

Store, Foucault Pendulum & Apatosaurus

TAKE HOME ITEMS

Keep the gemstones found at Gem Panning

GEORGIA PERFORMANCE STANDARDS

S5CS1, S5CS4c, S5CS7, S5E1a-c, S6E5a, S6E5c-g, SES1a-e, SES2a-e, SES3a-e, SESa-e, SG1a, SG1d, SG2a-d, SG3a-d, SG3f, SG4a-d, SG5a-b, SO1a-c, SZ2a

PERIODIC TABLE

GRADE LEVELS 8th-12th

DESCRIPTION

What is an element? Have you ever wondered why elements in the same group number on the periodic table have similar chemical reactivity? Who thought up the idea of a periodic table? How did it get its name? How does it affect our everyday lives? Come answer these questions and more as we learn about the basics and the makeup of the periodic table by visiting a life-sized version in Tellus' Weinman Mineral Gallery and then experience some hands-on manipulatives in the lab as an introduction to the Periodic Table and basic atomic structure. Program will run for two hours.

30 MINUTES - GALLERY TIME

- Anatomy of the Planet, Geode, The Life Size Periodic Table (discuss its organization and what information the table gives us)
- Participate in gallery wide scavenger hunt
- Discuss Earth's crust contains 92 natural elements found on the table

30 MINUTES - LAB

- Students will understand through various manipulatives: periods, groups or families, metals, non metals, transition metals, halogens, noble gases, valence electrons, basic atomic structure, etc.
- Students will play "It's Elemental," an element identification game

30 MINUTES

Gem Panning and Careers in Geology

30 MINUTES

Store, Foucault Pendulum & Apatosaurus

TAKE HOME ITEMS

Keep the gemstones found at Gem Panning

GEORGIA PERFORMANCE STANDARDS

S8CS5a-b, S8CS8a-c, S8CS9a-g, S8P1a-f, SCSH7a-c, SCSH8a-f, SPS1a, SPS4a-b, SC1b-c, SC3a-e, SC4b, SB4b, SES1a-d

LET'S ROCK AND ROLL

GRADE LEVELS 3rd, 6th, & 9th-12th

DESCRIPTION

Isn't a rock a rock? Students discuss, study, and sort specimens into the three major rock types. Focal points of the Weinman Mineral Gallery include the Rock Cycle Wall and our extensive mineral collections. Program will run for two hours.

30 MINUTES - GALLERY TIME
Anatomy of the Planet, Rock Cycle Wall,
Magic Planet, & McNitt Mining Area

30 MINUTES - LAB

- Define classification and why it is important in our lives
- Classify rocks into three major categories – igneous, sedimentary, metamorphic
- Depending on the grade level, further classify rocks, identify and name
- Discuss various parts of the rock cycle using hand specimens

30 MINUTES
Gem Panning and Careers in Geology

30 MINUTES
Store, Foucault Pendulum & Apatosaurus

TAKE HOME ITEMS
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GEORGIA PERFORMANCE STANDARDS

S3CS1b, S3CS7a-b, S3CS8a-d, S3E1a-b, S3E1d, S6CS6c, S6E1f, S6E5a-e, SES1a, SES1e, SES2d, SES3a-b, SE56c, SG2a-d, SG4a, SG5a-b

MESSY MINERALS

GRADE LEVELS 3rd & 6th

DESCRIPTION

Learn about the geologic history of minerals mined in Georgia, as well as the many uses of minerals. The Mining in Georgia, McNitt Mining Area, and the Kitchen Cutaway Corner will be features in the Weinman Mineral Gallery. Program will run for two hours.

30 MINUTES - GALLERY TIME - Rock vs. Mineral
Rock Cycle Wall, Mining in Georgia, McNitt Mining Area, & Mineral properties

30 MINUTES - LAB - Construction and Destruction of Georgia

- Define a mineral
- Show and manipulate various minerals and their uses
- Demonstrate, discuss, and experience uses of various minerals
- Make makeup from minerals

30 MINUTES
Gem Panning and Careers in Geology

30 MINUTES
Store, Foucault Pendulum & Apatosaurus

TAKE HOME ITEMS
Keep the gemstones found at Gem Panning

GEORGIA PERFORMANCE STANDARDS

S3CS1b, S3CS7a-b, S3CS8a-d, S3E1a-b, S3E1d, S6E5a-e

CSI: CLASSROOM SOIL INVESTIGATION

GRADE LEVELS 3rd, 4th, & 6th

DESCRIPTION

Get the dirt on Soil!! Investigate its physical characteristics using your senses. Learn the makeup of soil. Explore how weathering changes rocks and soil over time. Make predictions and participate in a water absorption race, use a hand held microscope to examine different specimens. You will explore soil in a brand new way. Program will run for two hours.

30 MINUTES - GALLERY TIME - Rock vs. Mineral
Rock Cycle Wall, 6th grade will touch on Plate Tectonics

30 MINUTES - LAB

- Discuss the processes of how soil is made
- Sense the soil
- Make microscopic observations using individual hand held microscopes
- Predict & participate in a water absorption race

3RD GRADE

- Use simplified dichotomous key for classifying their soil types

6TH GRADE

- Discuss pH
- Use pH meters to determine their soil samples acidity or alkalinity

30 MINUTES
Gem Panning and Careers in Geology

30 MINUTES
Store, Foucault Pendulum & Apatosaurus

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GEORGIA PERFORMANCE STANDARDS

S3CS2a, S3CS2c, S3CS3, S3CS5c, S3CS8a, S3CS8d, S3E1c, S3E1d, S4CS2a, S4CS2c, S4CS3, S4CS5c, S4CS8a, S4CS8d, S4L1a, S6CS1a-b, S6CS2a-c, S6CS3a-d, S6CS4b-c, S6CS6c, S6CS8a, S6CS9a,c,d, S6CS10c-d, S6E5a-f & h-j