

## Rock-N-Erode, Grades 3-6

### Program Description:

“There’s gold in them thar class!” We’ll head back to the Gold Rush days and do some gold panning and other hands-on activities to get to the core of why Earth is covered by so many different types of rocks and minerals. Practice techniques that geologists use for identification and classification of rocks and minerals. We’ll discover how volcanoes, mountains and water are all important in rock and mineral formation and erosion.

### Vocabulary:

Cleavage	Igneous rock	Rock
Crystal	Lava	Rock cycle
Deposition	Limestone	Sandstone
Erosion	Luster	Sediment
Feldspar	Magma	Sedimentary rock
Fluorescence	Magnetic	Streak
Fossil	Marble	Transport
Geology	Mineral	Volcano
Geologist	Metamorphic rock	Weathering
Granite	Property	
Hardness	Pumice	
Hematite		

### Possible Class Activities

Teams of students will...

- Igneous Rock Station – identify and classify common igneous rocks
- Sedimentary Rock Station – identify and classify common sedimentary rocks
- Metamorphic Rock Station – identify and classify common metamorphic rocks
- Mineral Detective Station – identify common rock forming minerals and explore their uses in everyday life
- Stream Table Station – Explore how water erodes landforms (weathering, transport and deposition) and identify locations of sedimentary rock formation
- Lava Flow Station - Learn how volcanoes erupt different types of lava to form igneous rocks. Measure the velocities of different “lava type” substances.
- Gold Panning Station – The American River here at Chabot. Use the same techniques the “forty-niners” used to pan for gold.

### Pre-Visit Activities (in your classroom):

- Review vocabulary (above).
- Crystal building – investigate crystals and crystal formation by watching sugar crystals

grow (<http://chemistry.about.com/od/growingcrystals/ht/blsugarcystal.htm>)

**Post-Visit Activities:**

- Make your own rock collection.
- Write a short story about the life of a grain of sand.
- Write a short story about being a “forty niner” during the California Gold Rush

**STATE OF CALIFORNIA STANDARDS MET IN THIS CLASS:**

**Grade 4**

Earth Science: 4 a, b; 5 a-c; 6 d, f

History- Social Science: 4.3 – 3, 5; 4.4 – 2

**Grade 5**

Physical Science: 1 b, d, I; 6 a, h

**Grade 6**

Earth Science: 2 a-c, 7 a, b, e, h