

Rocks & Minerals: Lab Exploration

Topics covered: Crystals grow. Diamonds sparkle. Calcium strengthens our bones. Minerals are all around us and even inside of us. In this science lab, students identify properties of mineral and examine how rocks are formed. Working in pairs, they conduct scientific tests to investigate color, luster, hardness and streak of eight common minerals. They handle a variety of rock samples and explore the many forces at work in the formation of igneous, sedimentary and metamorphic rock. They discover surprising uses for rocks and minerals found on abundance in the Mid-South.

Ages: 6-8

Purchase Details: Lab Exploration - \$5 per student

Programs can be reserved by phone: 901-636-2362

Wednesday - Saturday, 10:30 am - 5:30 pm

Objectives:

1. Investigate physical properties of minerals including color, luster, hardness and streak.
2. Distinguish between igneous, sedimentary and metamorphic rocks.
3. Interpret a simple rock cycle diagram.
4. Use topographic maps to identify surface features of Earth.

Vocabulary:

| | |
|-------------|-------------|
| rock | streak |
| mineral | igneous |
| organic | sedimentary |
| inorganic | metamorphic |
| homogeneous | magma |
| color | lava |
| luster | intrusive |
| hardness | extrusive |
| heft | rock cycle |

Fun Facts:

- The Pink Palace Museum gets its name from the pink marble rock on the façade of the mansion building.
- Ancient Egyptians crushed malachite, a mineral, into powder to use as green eye shadow.
- Dr. Harrison Schmidt went rock hunting on the moon and collected 240 pounds of samples including orange soil.

Web Resources:

American Geological Institute <http://americangeologicalsciences.org/education>

University of Memphis Earthquake Center <http://www.ceri.memphis.edu/>

Reach Out Center for Kids – Ontario <http://www.rocksforkids.com/>

Museum Resources:

- **For Your Classroom:**
 - Prepare for (or follow-up) your field trip by borrowing one of these *Suitcase Exhibits: Rocks & Minerals*, for grades 3-8, comes with boxes of specimens to examine, identify and test. *Fossils* also for grades 3-8, includes a bucket of fossils to “excavate” from sand. *Earthquakes* features a survival kit and geology demonstration set for grades K-8.
- **In the galleries:** See a specimen of calcite on dolomite from Tennessee, huge quartz crystals from Arkansas and meteorites from space. View our extensive rock and mineral collection and trace Earth’s history. It’s the amazing *Geology Gallery* in the museum’s **Natural History Exhibits**.

Where: Pink Palace Discovery Lab or Classroom (for 15-32 students)

When: August-May Tuesday-Friday at 9:30 & 11 am 45-60 Minutes

- **Standards:**
 - (Grade Level) 6-8
- **Tennessee: (Science)**
 - GRADE 6:
 - GRADE 7: 7.PS1
 - GRADE 8: 8.ESS2
- **Mississippi: (Science)**
 - GRADE 6:
 - GRADE 7:
 - GRADE 8: E.8.7, E.8.9
- **Arkansas: (Science)**
 - GRADE 6:
 - GRADE 7: 7-ESS2
 - GRADE 8:
- **Catholic Diocese: (Science)**
 - GRADE 6: 6.1.1, 6.1.2, 6.1.3, 6.V.2
 - GRADE 7:
 - GRADE 8: 8.1.10, 8.1.12, 8.1.13, 8.1.14, 8.V.1