

## EARTH SCIENCE SERIES

# ROCK AND MINERAL PENNY TEST

Have you ever noticed how many different types of rocks are all around us? The geology of New England has changed through every era. We have igneous rocks formed by ancient volcanoes, metamorphic rocks that were created by the enormous pressure of mountains forming, sedimentary rocks formed by glaciers thousands of years ago. One way to learn about rocks and minerals is to test their hardness. You can try this with rocks you find on a walk in your neighborhood.

## MATERIALS AND STEPS

- A few different rocks
- A penny

Choose the first rock you want to test. Scratch the rock as hard as you can with the penny. Try to make a mark on the rock with the penny. If you leave a scratch on the rock, or if part of the rock breaks off, that means your penny is harder than your rock. If you create a copper or silver line, that means the rock is harder than your penny.

Repeat this process with each rock. How many are harder than the penny? You can also try scratching your rock with other objects. A nail can help test the hardness of rocks and minerals.

## VOCABULARY

**Igneous rocks** are formed by volcanoes. When a volcano erupts, lava pours onto the surface of the Earth. The lava eventually cools down and forms rocks. The most common igneous rock in New England is granite.

**Metamorphic rocks** start out as other rocks that are then transformed by heat and pressure. **Gneiss** is a metamorphic rock found commonly in New England.

**Sedimentary rocks** are formed when sediments like sand and mud become hard and are pressed together over a number of years. **Shale** is a common form of sedimentary rock in New England.

## FUN FACT

Shale is a softer sedimentary rock made up mostly of clay. Because many dinosaurs walked in clay, we can sometimes find their footprints preserved in shale today.

