

WAYFINDER Rocks and Minerals

The following North Carolina State Science Standards are relevant to this Wayfinder:

Grade 4	2.03, 2.04, 2.05, 2.06
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Introduction

Many people don't consider the contributions that rocks and minerals make to our everyday lives. Rocks and minerals give structure to many extravagant buildings, help season our food, adorn our bodies and give strength to our bones and teeth. Studying rocks and minerals can open the door for students to begin thinking about everyday items that they may take for granted.

The Museum of Life and Science has an entire exhibit dedicated to the study of geology. It holds a collection of rocks and minerals from all over the world, each with their own unique properties. Students can explore up-close common rocks that make up each of the three categories – igneous, metamorphic and sedimentary. They will also be able to interact with some of these rocks to learn more about what makes them special.

Before your visit

Explore and describe properties of minerals. Have students become familiar with names of common minerals and define characteristics of those minerals by determining some properties that define them such as hardness or streak color.

Explore common types of rock. Discuss the minerals that make up these rocks. Have students hunt for certain rocks at home to see if they can independently identify the specific properties of rocks discussed in class.

During your visit

Visit the geology exhibit on the first floor of the Museum. Give students a scavenger hunt to complete as they look around. All of the answers can be found within this area of the Museum. Encourage students to also look in the drawers underneath the Crystal Shapes, Igneous, Metamorphic, and Sedimentary exhibits. Some items may have more than one answer.

After your visit

Discuss the answers to the scavenger hunt. You could turn the hunt into a point-based competition, awarding one point for every item found or for every item answered correctly. The answers are given below.

Please see Geology Scavenger Hunt Activity on next page...

Geology Scavenger Hunt ANSWERS

FIND A(N)...	WHAT ROCK IS IT?
...igneous rock that might float in water.	<i>pumice</i>
...igneous rock that contains minerals like quartz and feldspar.	<i>granite</i>
... igneous rock that has large, pale yellow crystals of the mineral spodumene growing in it.	<i>pegmatite</i>
... igneous rock with shiny crystals.	<i>granite, pegmatite</i>
...igneous rock that is used for buildings, countertops and even gravestones. (HINT: it usually has many different colored minerals)	<i>granite</i>
...sedimentary rock formed by many different types of rock "glued" together.	<i>conglomerate or puddingstone</i>
...sedimentary rock that has a fossil in it.	<i>limestone, shale</i>
...a white metamorphic rock that was often used in old statues and buildings. (HINT: it was formed by heat and pressure.)	<i>marble</i>

What do *granite*, *pumice* and *obsidian* have in common? They come from volcanoes, they are igneous rocks

What do *marble*, a *stretched pebble conglomerate* and *gneiss* have in common? They were formed by heat and pressure, they are metamorphic rock

What do *sandstone*, *siltstone* and *shale* have in common? They have layers, they are sedimentary

FIND A MINERAL...	WHAT IS IT CALLED?
...that is clear and almost in a cube shape that might have a salty taste. (Look in the Crystal Shapes exhibit)	<i>halite</i>
...that is North Carolina's state gem.	<i>emerald</i>
...that can be found in schist (a metamorphic rock)	<i>mica, garnet, staurolite, pyrite, chlorite</i>

Geology Scavenger Hunt

FIND A(N)...	WHAT ROCK IS IT?
...igneous rock that might float in water.	
...igneous rock that contains minerals like quartz and feldspar.	
... igneous rock that had large, pale yellow crystals of the mineral spodumene growing in it.	
... igneous rock with shiny crystals.	
...igneous rock that is used for buildings, countertops and even gravestones. (HINT: it usually has many different colored minerals)	
...sedimentary rock formed by many different types of rock "glued" together.	
...sedimentary rock that has a fossil in it.	
...a white metamorphic rock that was often used in old statues and buildings. (HINT: it was formed by heat and pressure.)	

What do *granite*, *pumice* and *obsidian* have in common?

What do *marble*, a *stretched pebble conglomerate* and *gneiss* have in common?

What do *sandstone*, *siltstone* and *shale* have in common?

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