Geology: Rock Detectives

A Museum of Science Traveling Program
Description

Geology: Rock Detectives is a 60-minute workshop that gives students context-rich practice with identifying small rock samples and interpreting the larger geologic picture. It is designed to build on NGSS-based curricula.

NGSS: Next Generation Science Standards
Needs

We bring all materials and equipment, including a video projector and screen. Access to 110-volt electricity is required.
Space Requirements

The program can be set up in any room with at least 20´ by 25´ of cleared floor area. All sessions must be taught in the same room.
Goals: Rock Wall

Following a review of rock formation processes, students are challenged to identify how our Rock Wall was formed.
Goals: Mystery Rocks

Each group receives samples from a different portion of the Rock Wall and takes their Mystery Rocks around six field stations.
Goals: Field Stations

Each station is used to evaluate a specific characteristic, such as hardness, grain size, reactivity with acid, and others.
Goals: Scientific Tools

A major goal is for students to use scientific tools like microscopes, hand lenses, and safety glasses.
Goals: Science Skills

They also practice important science process skills like observation, data collection/analysis, and sharing results!
Finale

The program culminates with students analyzing their data and predicting their rock’s identity.
Finale

The predictions are shared and then tested for accuracy using their location in the Rock Wall.
Program Details

• Can only be booked for school groups during the school year.

• Only available for fourth- or fifth-grade students studying the program content.
Program Details

• Capacity is one class (25 students) per session.

• Up to four consecutive sessions can be taught per day.
NGSS Connections

• 4-ESS1-1: Construct a claim with evidence that changes to a landscape due to erosion and deposition over long periods of time result in rock layers and landforms that can be interpreted today. Use evidence from a given landscape that includes simple landforms and rock layers to support a claim about the role of erosion or deposition in the formation of the landscape.

• 4-ESS2-1: Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering and moved around through erosion by water, ice, wind, and vegetation.

• 5-PS1-3: Make observations and measurements to identify substances based on their unique properties, including color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, and solubility.
NGSS Scientific and Engineering Practices

- Asking questions and defining problems.
- Planning and carrying out investigations.
- Developing and using models.
- Analyzing and interpreting data.
- Constructing explanations and designing solutions.
- Engaging in argument from evidence.
- Obtaining, evaluating, and communicating information.
No mileage fees charged in New England in 2019-20 School Year.

<table>
<thead>
<tr>
<th>Sessions per Day</th>
<th>Price</th>
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<tbody>
<tr>
<td>1 Session</td>
<td>$450</td>
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<tr>
<td>2 Sessions</td>
<td>$550</td>
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<tr>
<td>3 Sessions</td>
<td>$650</td>
</tr>
<tr>
<td>4 Sessions</td>
<td>$750</td>
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For information/reservations:
mos.org/travelingprograms
travelingprograms@mos.org
617-589-0354