Gottesman Hall of Planet Earth

BACKGROUND FOR EDUCATORS

Overview of Student Worksheets

Using worksheets, students visit three areas in the hall to observe the characteristics of three types of rocks: sedimentary rocks, igneous rocks, and metamorphic rocks.

These observations help students experience a **natural phenomenon**: Rocks have different colors, shapes, and textures. This phenomenon can serve as an anchoring point in discovery and discussion as the students explore the **investigation questions**: What can the features of rocks tell us about the rock cycle and the internal forces that shape our Earth?

Extension Ideas

Back in the classroom, students can apply what they learned about the characteristics of the three different rock groups to the rock cycle. They can also create a model that explains the formation of the old sandstones, granite pegmatite, and deformed conglomerates.

Suggested discussion prompts:

- How are the characteristics of rocks impacted by the processes of the rock cycle?
- What processes (melting, crystallization, weathering, deformation, and sedimentation) acted to form these rocks? How can we know?

Suggested resources:

- Reading: The Rock Cycle (amnh.org/planet-earth-educators)
- Story and photo galleries: If Rocks Could Talk (amnh.org/explore/ology/earth/if-rocks-could-talk2)

Correlation to Standards

This activity supports the following Next Generation Science Standards:

Disciplinary Core Ideas	**ESS2.A: Earth's Materials and Systems** All Earth processes are the result of energy flowing and matter cycling within and among the planet's systems. This energy is derived from the sun and Earth's hot interior. The energy that flows and matter that cycles produce chemical and physical changes in Earth's materials and living organisms.
Crosscutting Concepts	**Stability and Change** Explanations of stability and change in natural systems can be constructed by examining the changes over time and processes at different scales.
Science and Engineering Practices	**Developing and Using Models** Develop and use a model to describe phenomena.