

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 the three types of rocks: sedimentary, igneous, and metamorphic.

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 question**: 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 types to the rock cycle. They can also create a model that explains the formation of the old red sandstones, granite pegmatite, and deformed conglomerates.

Suggested discussion prompts:

- How are the characteristics of rocks determined 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.