

Rocks vs. Minerals

Lantern Gate Basecamp with Rockling

Learning target

Distinguish a rock from a mineral using a description, not appearance alone.



Before you begin

Use the reference page and discussion prompts on their own, or open the optional browser adventure. No earlier lesson or physical kit is required.

For online play: use an internet-connected current browser with local storage enabled. Read the three-part Gemling briefing, answer the quick check, and apply the evidence at three checkpoints. Retry feedback supports review; results are not a secure test or gradebook.

Use for teacher-led review, science centers or partner practice. Independent readers may need support with the vocabulary below. The design target is grades 3-5; choose support based on the learner.

Vocabulary and concepts to discuss

Rocks and minerals; mineral grains; natural materials; granite and quartz

Open Lantern Gate Basecamp - direct lesson link

Scan the QR code or use the clickable link. This guide is usable offline; the adventure runs on an external educational website.



Rocks vs. Minerals - key ideas

1. Meet the building blocks

A mineral is a natural, nonliving solid with a repeating crystal pattern and a particular chemical makeup. Quartz is a mineral.

2. A rock can hold many minerals

Most rocks are made of one or more minerals. Granite is a rock with different mineral grains, including quartz and feldspar.

3. Use the clues together

A rock is not just a large mineral. Size and color do not decide! Look at what the sample is made of.

Keep the science accurate

Use observable evidence and qualitative processes. Mineral chemistry, detailed crystallography and quantitative geological time remain extensions.

Apply the evidence

Use a specific observation from this lesson to explain one choice. Point to a clue, then connect that clue to a scientific idea.

Curriculum reference: <https://www.nps.gov/subjects/geology/rocks.htm>

Talk through the evidence

1. Which sample is a mineral?

Expected answer: Quartz

Reasoning: Quartz is a mineral; granite is a rock containing several minerals.

2. Which label belongs on granite?

Expected answer: Rock

Reasoning: Granite is a rock made of several minerals.

3. Which trail should we follow?

Expected answer: Rocks contain minerals

Reasoning: Most rocks contain one or more minerals.

4. Which pair opens the first lock?

Expected answer: Granite to rock; quartz to mineral

Reasoning: You matched both samples using what they are made of.

Guide the discussion

Ask learners to name the evidence that supports their answer. If an answer differs, revisit the matching key idea on page 2 and invite a revised explanation.

Online rewards: this lesson grants one fixed digital Expedition Discovery. Five saved digital Gemling friends become available only after all six distinct subject lessons are complete, in any order. Digital rewards do not establish physical ownership.