

Three Kinds of Rocks · Conversation & classroom guide

Learning with a grown-up · Ages 4–8 · Flexible participation

What can a rock's formation story tell us?

Learning aim: Connect each pictured rock example to a different formation process.

A five-minute conversation

Start by describing the pictured textures, then introduce the three names: igneous, sedimentary and metamorphic. Connect each to its example and formation story. Read that granite forms slowly underground, sandstone can form from sand, and heat can change rock into a different rock without melting it. Keep the focus on comparing processes, not memorizing labels.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Compare the sandy and speckled examples.

Explore further: Explain why looking at color alone would not identify every rock.

Which pictured rock looks sandy?

Answer cue: Sandstone.

Which type begins as melted rock that cools and hardens?

Answer cue: Igneous rock; granite is the example.

Does the rock melt when it changes into metamorphic rock?

Answer cue: No. It changes without melting.

Keep the idea clear

The pictures are examples, not a complete identification key. Color or texture alone cannot reliably identify every rock.

Try: Match a rock to its story

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose granite, sandstone and marble from the poster.
2. An adult reads the three formation explanations; match each to its named example.
3. Draw or dictate one formation story, keeping observed appearance separate from the explanation.

What this can show: Granite is the igneous example, sandstone sedimentary and marble metamorphic. These pictures are not a complete identification key.

Return to it: At the Inside Earth poster, find the rocky outside. What can the two posters tell us together?

Three Kinds of Rocks · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

igneous — Formed when melted rock cools and hardens.

metamorphic — Rock changed by heat and/or pressure without melting.

3 min · Reconnect and wonder: What can a rock's formation story tell us? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Compare the sandy and speckled examples. Introduce igneous using the poster.

8 min · Investigate or represent: Use "Match a rock to its story." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: What can a rock's formation story tell us? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why looking at color alone would not identify every rock.

Understanding check: What can a rock's formation story tell us?

Answer guidance: Igneous rock forms from cooling melted rock; the sedimentary example forms from particles pressed and stuck together; metamorphic rock changes without melting. Granite is the igneous example, sandstone sedimentary and marble metamorphic. These pictures are not a complete identification key.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/three-rock-types>

Our discovery record

Use words, marks, a drawing or an adult's notes. Keep this page with you; nothing needs to be uploaded.

Date / time (if useful): _____

My question or idea

What I noticed

What I think now

What I want to explore next

Stories to continue together: <https://kiddos.ai/books>

Kiddos Books on the App Store: <https://apps.apple.com/app/id6720721998>

Explore the available physical books: <https://www.amazon.com/author/kiddos-books>