

Inside a Volcano

Ash Camp Rim with Eruptling

Learning target

Use a simple model to explain the main parts of a volcano.



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

Crust and mantle; magma versus lava; chambers, vents and craters

Open Ash Camp Rim - 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.



Inside a Volcano - key ideas

1. The first clues

Magma is melted rock below the surface. At the surface it is called lava. Most of Earth's mantle is solid, although some rock melts in particular places.

2. How the clues connect

Magma can collect below a volcano. A vent is a passage toward the surface; a crater is an opening or bowl at the top.

3. Our evidence record

Our cutaway model follows magma from a storage region, through a vent, and out as lava. The drawing simplifies a volcano; it does not show a liquid mantle ocean.

Keep the science accurate

Most of the mantle is solid; do not draw the entire mantle as a liquid magma ocean.

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/teachers/classrooms/volcanoes.htm>

Talk through the evidence

1. What is melted rock underground called?

Expected answer: Magma

Reasoning: Magma is melted rock below the surface. At the surface it is called lava. Most of Earth's mantle is solid, although some rock melts in particular places.

2. Which label fits the passage upward?

Expected answer: Vent

Reasoning: Magma can collect below a volcano. A vent is a passage toward the surface; a crater is an opening or bowl at the top.

3. The model marks a bowl at the summit. Which label fits?

Expected answer: Crater

Reasoning: Magma can collect below a volcano. A vent is a passage toward the surface; a crater is an opening or bowl at the top.

4. A drop crosses onto the surface. What changes in its label?

Expected answer: Magma becomes lava

Reasoning: Magma is melted rock below the surface. At the surface it is called lava. Most of Earth's mantle is solid, although some rock melts in particular places.

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.