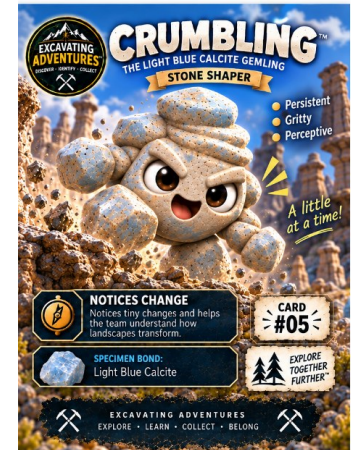


Erosion by Water, Wind & Ice

Flash Flood Narrows with Crumbling

Learning target

Compare agents that move weathered material.



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

Transporting sediment; water speed; wind; glaciers

Open Flash Flood Narrows - 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.



Erosion by Water, Wind & Ice - key ideas

1. The first clues

Water, wind and moving ice can transport sediment. Erosion describes that movement, not simply the breaking of a rock.

2. How the clues connect

Faster moving water often carries more or larger particles than slower water under comparable conditions. Wind more easily moves loose small particles than large heavy stones.

3. Our evidence record

Our model carries more sand at the faster water setting. Keep the channel and amount of sand the same to compare the effect of water speed.

Keep the science accurate

Explain breaking, moving and settling distinctly. Chemical weathering is descriptive; no acid experiments are required.

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.nextgenscience.org/dci-arrangement/4-ess2-earths-systems>

Talk through the evidence

1. Which agent can carry rock with ice?

Expected answer: A glacier

Reasoning: Water, wind and moving ice can transport sediment. Erosion describes that movement, not simply the breaking of a rock.

2. What does the faster-water model show?

Expected answer: More sand carried in this test

Reasoning: Our model carries more sand at the faster water setting. Keep the channel and amount of sand the same to compare the effect of water speed.

3. Which material is wind more likely to move?

Expected answer: Loose fine sand

Reasoning: Faster moving water often carries more or larger particles than slower water under comparable conditions. Wind more easily moves loose small particles than large heavy stones.

4. What should stay the same in our comparison?

Expected answer: Channel and starting sand amount

Reasoning: Our model carries more sand at the faster water setting. Keep the channel and amount of sand the same to compare the effect of water speed.

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.