

Water, Air, Soil & Living Things

Stream Exchange Crossing with Linkling

Learning target

Trace how nonliving resources support living things.



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

Resource movement; environmental conditions; plant needs; system connections

Open Stream Exchange Crossing - 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.



Water, Air, Soil & Living Things - key ideas

1. The first clues

Water, air and soil connect with living things. Plants take up water and minerals and use carbon dioxide from air to make food.

2. How the clues connect

Animals depend on water and food, often linking them indirectly to plants and soil conditions. A change in a nonliving resource can affect living populations.

3. Our evidence record

Our dry-soil record shows reduced plant growth followed by less food for a grazer. Trace the connection through resources rather than treating each change as unrelated.

Keep the science accurate

Use a manageable system and one change at a time. No population equations or molecular nutrient cycling.

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/pe/5-Is2-1-ecosystems-interactions-energy-and-dynamics>

Talk through the evidence

1. What do plant roots take up?

Expected answer: Water and dissolved minerals

Reasoning: Water, air and soil connect with living things. Plants take up water and minerals and use carbon dioxide from air to make food.

2. Can soil moisture affect consumers indirectly?

Expected answer: Yes, through plants

Reasoning: Animals depend on water and food, often linking them indirectly to plants and soil conditions. A change in a nonliving resource can affect living populations.

3. What happened first in our record?

Expected answer: Soil became drier

Reasoning: Our dry-soil record shows reduced plant growth followed by less food for a grazer. Trace the connection through resources rather than treating each change as unrelated.

4. Which connection fits?

Expected answer: Water affects plants, which affect food supply

Reasoning: Animals depend on water and food, often linking them indirectly to plants and soil conditions. A change in a nonliving resource can affect living populations.

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.