

Changes in Food Webs

Apex Den Vault with Chompling

Learning target

Predict a reasonable effect of one food-web change.



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 changes; population effects; interdependence; limits of prediction

Open Apex Den Vault - 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.



Changes in Food Webs - key ideas

1. The first clues

Food-web changes can affect several organisms. If a food source declines, consumers depending on it may have less food.

2. How the clues connect

Alternative foods and other conditions can change the outcome. A simple web supports a possible effect, not an exact count of future animals.

3. Our evidence record

Our record shows fewer insects and birds that eat insects and seeds. Birds may use more seeds, but we need evidence about seed supply before predicting their population.

Keep the science accurate

Arrows show energy moving from food to eater. Energy flows while matter cycles. Include decomposers; avoid rigid one-food-per-animal rules.

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 may fewer insects mean for insect eaters?

Expected answer: Less of that food

Reasoning: Our record shows fewer insects and birds that eat insects and seeds. Birds may use more seeds, but we need evidence about seed supply before predicting their population.

2. Which alternative food is listed for these birds?

Expected answer: Seeds

Reasoning: Alternative foods and other conditions can change the outcome. A simple web supports a possible effect, not an exact count of future animals.

3. What additional evidence would help?

Expected answer: Available seed supply

Reasoning: Our record shows fewer insects and birds that eat insects and seeds. Birds may use more seeds, but we need evidence about seed supply before predicting their population.

4. Which prediction is appropriately limited?

Expected answer: Birds may be affected, depending on other food

Reasoning: Food-web changes can affect several organisms. If a food source declines, consumers depending on it may have less food.

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.