

Dry, Cold & Open-Land Habitats

Desert Shelter Dunes with Nookling

Learning target

Compare contrasting land habitats without assuming all deserts are hot.

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

Deserts; grasslands; polar settings; temperature; water availability



Open Desert Shelter Dunes - 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.



Dry, Cold & Open-Land Habitats - key ideas

1. The first clues

Deserts are dry; grasslands have many grasses; polar habitats are cold. These are broad descriptions with variation within them.

2. How the clues connect

Animals and plants still need resources in each place. Shelter, available water and temperature help determine habitat suitability.

3. Our evidence record

Our comparison describes an animal with a need for insulating shelter in severe cold. A sheltered polar site addresses that condition; a sunny label on a dry dune does not supply the required shelter.

Keep the science accurate

A habitat includes food, water, air and space, not only a nest. Use representative habitats without memorizing every biome.

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/3-Is4-biological-evolution-unity-and-diversity>

Talk through the evidence

1. Which condition defines a desert?

Expected answer: Low precipitation

Reasoning: Deserts are dry; grasslands have many grasses; polar habitats are cold. These are broad descriptions with variation within them.

2. What is common in a grassland?

Expected answer: Many grasses

Reasoning: Deserts are dry; grasslands have many grasses; polar habitats are cold. These are broad descriptions with variation within them.

3. Which evidence matters for the stated cold-site animal?

Expected answer: Insulating shelter

Reasoning: Our comparison describes an animal with a need for insulating shelter in severe cold. A sheltered polar site addresses that condition; a sunny label on a dry dune does not supply the required shelter.

4. Are broad habitat labels enough for every match?

Expected answer: No, check specific needs

Reasoning: Deserts are dry; grasslands have many grasses; polar habitats are cold. These are broad descriptions with variation within them.

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.