

Ocean Habitats

Kelp Cathedral with Aqualing

Learning target

Compare habitats using conditions and organism needs.



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

Coasts; kelp forests; reefs; open water; habitat needs

Open Kelp Cathedral - 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.



Ocean Habitats - key ideas

1. The first clues

Ocean habitats differ in light, depth, temperature, water motion and shelter. Kelp forests, reefs, coasts and open water support different communities.

2. How the clues connect

An organism needs conditions that support its food, shelter and other needs. A habitat match should use supplied evidence, not appearance alone.

3. Our evidence record

Our record says a kelp-associated fish uses dense blades for shelter. The kelp forest offers that structure; bare open water does not provide the same shelter.

Keep the science accurate

Use qualitative depth, tide and current models. Do not require pressure equations, global-current memorization or ocean-zone trivia.

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/5-ess2-earths-systems>

Talk through the evidence

1. Which condition helps distinguish habitats?

Expected answer: Available light and shelter

Reasoning: Ocean habitats differ in light, depth, temperature, water motion and shelter. Kelp forests, reefs, coasts and open water support different communities.

2. Which habitat fits this fish's shelter need?

Expected answer: Kelp forest

Reasoning: Our record says a kelp-associated fish uses dense blades for shelter. The kelp forest offers that structure; bare open water does not provide the same shelter.

3. Are all ocean habitats the same?

Expected answer: No, conditions differ

Reasoning: Ocean habitats differ in light, depth, temperature, water motion and shelter. Kelp forests, reefs, coasts and open water support different communities.

4. What justifies a habitat match?

Expected answer: The organism's needs and habitat evidence

Reasoning: An organism needs conditions that support its food, shelter and other needs. A habitat match should use supplied evidence, not appearance alone.

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.