Who Lives Where? Comparing Habitat Diversity

Teacher		**Class**	Grade 2
Subject	Science	**Topic**	Plants and animals in different habitats
Date		**Room**	
Lesson length	60 minutes	**Country**	United States

Students learn what habitats give living things and that each habitat has different life. They sort plant and animal cards and count to compare diversity.

Curriculum links

- Make observations of plants and animals to compare the diversity of life in different habitats [4]

Learning objectives

- Students will explain that a habitat gives food, water, shelter, and space.
- Students will match plants and animals to forest, pond, and desert habitats.
- Students will count kinds of life to compare diversity in different habitats.

Success criteria

- I can tell what every habitat gives living things.
- I can match plants and animals to their habitat.
- I can count kinds and tell which habitat has more.

What students already know

Ask: What plants and animals have you seen outside? Where was each one living and what was it finding there?

Key words

habitat	the home where living things find food, water, shelter, and space to survive [4]
forest	a place with many tall trees where birds and other animals live [13]
pond	a small body of still fresh water where lilies and frogs live [14]
desert	a hot, dry place where cactus and lizards live [13]
diversity	how many different kinds of living things are in a place [4]
shelter	a safe place to live and hide [4]

Materials

- Large photos of forest, pond, and desert habitats
- Picture cards of plants and animals with colored dot on back
- 3 sorting mats labeled forest, pond, desert
- Slides 1-4, 6-7, 9-12 and projector with sound
- Worksheet Task B (Experiment sheet) copies and pencils
- Extra grassland photo with extra cards for stretch

Before the lesson

- Print 3 sorting mats and picture cards, add colored dot on back that matches mat color
- Print Worksheet Task B copies for each pair and sharpen pencils
- Load Slides 1-4, 6-7, 9-12 and test Video clip 2 What Is a Habitat (0:00–4:02)
- Set group tables with one habitat photo per mat and shuffled picture cards

- Board and markers for class count chart
- Draw class count chart with columns for forest, pond, desert

Lesson outline

0–10 min **Starter** 10 min · Whole class

Hook students and recall that plants and animals live in different homes.

YOU DO

1. Show Slide 1 Homes for Plants and Animals: Comparing life in different habitats.
2. Say the hook: I have three homes and a pile of neighbors. Can you move each plant and animal to the right home?
3. Show Slide 2 mystery and read the riddle aloud: I am green and spiky. I hold water inside. I live where it is hot and dry. What am I?
4. Take guesses, then reveal: A cactus living in a desert habitat.

STUDENTS DO

1. Listen to the hook and look at the three habitat photos.
2. Turn and talk with a neighbor to guess the mystery.
3. Share guesses and say where the cactus lives.

Say: I have three homes and a pile of neighbors. Can you move each plant and animal to the right home? Look at this clue: I am green and spiky. I hold water inside. I live where it is hot and dry. What am I?

Worked example: Read together: I am green and spiky. I hold water inside. I live where it is hot and dry. That matches a cactus. The answer is: A cactus living in a desert habitat.

Ask: What am I, and what habitat do I live in? (A cactus living in a desert habitat.) · What other neighbors might live with the cactus? (Lizards and snakes, because desert - cactus and lizards.)

Check understanding: Thumbs up if you can name the mystery living thing and its home. If many are unsure, show the desert photo again and reread the three clue lines.

Support: Show a large cactus photo and point to spikes while rereading one line at a time. **Stretch:** Ask what the cactus would need to find in the desert to stay alive.

Use: Slides 1-2

10–20 min **Teaching** 10 min · Whole class

Teach what every habitat gives and that different habitats have different life.

YOU DO

1. Show Slide 3 and read each card: A habitat gives food to eat and grow. A habitat gives water to drink and grow. A habitat gives a safe place to live.
2. Add space, explaining a habitat is a home where a plant or animal finds food, water, shelter, and space to survive [4].
3. Show Slide 4 mindmap and Slide 7 statement: Different habitats are home to different plants and animals.
4. Play Video clip 2 What Is a Habitat (0:00–4:02) on Slide 6: Listen for what every habitat gives, spot one plant and one animal.

STUDENTS DO

1. Repeat food, water, shelter with actions and say space.
2. Watch the video to spot one plant and one animal and what each gets.
3. Name forest, desert, and pond neighbors from the mindmap.

Say: A habitat is a home where a plant or animal finds food, water, shelter, and space to survive [4]. Different habitats support different communities of plants and animals [6]. Land habitats include forests, grasslands, wetlands, and deserts [13].

Worked example: Forest example: Tall trees, birds, squirrels and insects live here. The trees give birds shelter for nests, insects give birds food, and rain gives water to drink and grow. That is why forest neighbors fit the forest home.

Ask: What four things does every habitat give to live and grow? (Food, water, shelter, and space [4].) · What would you see in a forest but not in a desert? (Tall trees, birds, squirrels, because desert has cactus, lizards and snakes and is hot and dry.)

Check understanding: Hold up 1-4 fingers for how many habitat needs you can name. Reteach any missing one with the Slide 3 card before moving on.

Support: Keep the three Slide 3 picture cards up and point to food, water, and home icons while you talk.
Stretch: Ask why a pond plant with soft stems would not fit in a dry place [13].

Use: Slides 3-4, 6-7, Video clip 2 (0:00–4:02)

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20–45 min **Main activity** 25 min · Groups

Sort plants and animals into habitats and count to compare diversity.

YOU DO

1. Hand out 3 sorting mats, habitat photos, and shuffled picture cards to each small group.
2. Model with two cards: read clues, match to photo, place on mat: Observe two habitat pictures and compare who lives there.
3. Tell groups to look closely at forest and pond pictures, count plants and animals in each, and record on Worksheet Task B.
4. Walk around, ask why each card fits, then have groups count how many different cards are on each mat to compare the diversity of life [4].

STUDENTS DO

1. In small groups, observe photos and sort cards onto forest, pond, desert mats.
2. Count kinds on each mat and complete Worksheet Task B Experiment sheet.
3. Check by flipping cards for the colored dot after trying, then fix any mistakes.

Say: In your group, look closely at forest and pond pictures. Count plants and animals in each. Put each neighbor on the right home. Rivers, creeks, lakes, ponds, and streams are all freshwater habitats [14]. Then count which mat has the most kinds.

Worked example: I pick a water-lily card. It floats on water, so it goes to the pond, where plants such as algae, cattails, and water lilies live [14]. I pick a cactus card. It holds water inside and has few leaves, like plants that live in dry places [13], so it goes to the desert where cactus, lizards and snakes live here. Then I count: forest 5 kinds, pond 6 kinds, desert 3 kinds, so pond shows the most diversity in our cards.

Ask: Why does this card belong on the pond mat and not the desert mat? (Because it needs lots of water to live, and the pond gives water while the desert is hot and dry.) · Which mat has the most different kinds, and what does that tell us? (The mat with the highest count has more diversity; different habitats are home to different plants and animals.)

Check understanding: Check each group's Task B counts. If counts differ, have them recount aloud and point to each card once.

Support: Give cards with a colored dot on the back that matches the mat color so students can check after they try. **Stretch:** Add a fourth photo, like a grassland, and have students explain why some pond cards do not fit there.

Use: Slides 9-10, Worksheet Task B

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45–55 min **Share** 10 min · Whole class

Compare class results and state which habitat showed more diversity.

YOU DO

1. Have each group report its three numbers and write them on the class chart.
2. Reread Slide 7: Different habitats are home to different plants and animals.
3. Ask groups to tell which habitat had the most kinds of living things in the pictures [4].
4. Show Slide 11 and take a quick vote: Which habitat would you most like to observe?

STUDENTS DO

1. Report counts and explain one card placement to the class.
2. Compare numbers and say which habitat shows more diversity.
3. Vote for the habitat they would most like to observe.

Say: Different habitats support different communities of plants and animals [6]. Let us add up our counts. Tell the class which habitat had the most kinds of living things and why you think that home can support them.

Worked example: Group 1 reports: forest 5, pond 7, desert 4. Group 2 reports: forest 6, pond 7, desert 3. Together, pond shows 7 kinds, the most diversity in our pictures, because pond water, lilies, and shelter support frogs, ducks, and insects.

Ask: Which habitat had the most kinds in our class counts? (Answers vary by cards, often the pond, with the highest number counted.) · Why could a frog live in the pond but not in the desert? (The pond gives water and shelter it needs; the desert is hot and dry and does not give enough water [13].)

Check understanding: Point to the chart totals and ask all to show the habitat with most kinds on fingers. Recount any column where groups disagree.

Support: Let students point to the photo or card instead of saying the full sentence, then repeat the sentence frame for them. **Stretch:** Ask students to defend a trick card that could fit in two places, like grass in forest and grassland.

Use: Slides 7, 11

55–60 min **Plenary** 5 min · Whole class

Review what habitats give and what we found about diversity.

YOU DO

1. Show Slide 12 exit lines and read them aloud.
2. Ask students to answer aloud first, then write two short lines.
3. Restate objectives: sorted forest, pond, desert and counted to compare diversity [4].
4. Collect Worksheet Task B and exit lines.

STUDENTS DO

1. Tell a partner their two exit sentences.
2. Write exit lines using Slide 12 starters.
3. Hand in Worksheet Task B and exit slip.

Say: Think back to our three homes. You sorted neighbors and counted kinds to compare. Now finish these lines: One plant or animal I observed was... One habitat is different because... Tell your partner, then write.

Worked example: One plant or animal I observed was a frog in the pond. One habitat is different because the desert is hot and dry and the pond has water everywhere. One question I still have is what lizards drink in the desert.

Ask: What does every habitat give? (Food, water, shelter, and space [4].) · What did counting tell us today? (Different mats had different numbers of kinds, so diversity differs by habitat.)

Check understanding: Read three exit slips aloud. If answers confuse habitat needs, point back to Slide 3 cards tomorrow.

Support: Give the frame: A ___ lives in the ___. It finds ___ there. **Stretch:** Ask students to add: One question I still have is ___ to extend Slide 12.

Use: Slide 12

Common mistakes

Mistake	How to spot it	How to fix it
Thinking a habitat is only shelter, not food, water, and space too.	Student names only the home part and leaves out drinking or growing needs.	Point to food, water, shelter cards and ask where the animal finds each in its photo [4].
Thinking any plant or animal can live in any habitat.	Student puts a water lily or frog on the desert mat.	Ask what the living thing needs and compare hot and dry desert [13] with freshwater pond [14].
Counting the same kind twice instead of counting different kinds.	Counts are much higher than cards because duplicates are counted twice.	Model touching each different picture once and sorting doubles together before counting diversity [4].

Support

- Give cards with a colored dot on the back that matches the mat color so students can check after they try.
- Use picture labels and sentence frames for food, water, and shelter answers.

Stretch

- Add a fourth photo, like a grassland, and have students explain why some pond cards do not fit there.
- Have fast finishers write one reason a pond animal could not get what it needs in the desert.

For the LSE or teaching assistant

Sit with target group during sorting, read card clues aloud, prompt dot-check after trying, and help count kinds one-by-one for Task B.

Check for understanding

Question	Answer
Name one plant or animal you observed and the habitat where it lives.	Example: water lily in the pond; cactus in the desert.
What four things does every habitat give?	Food, water, shelter, and space [4].
Which habitat had the most kinds in your group, and what does that mean?	Names the highest-count habitat; it shows more diversity in those pictures [4].

Homework

Draw one plant near your home and write which habitat it fits and what it finds there.

Sources

1. Download the Lesson List · science.edu · https://www.science.edu/Acellus/curriculum/science/lesson-lists/Grade%202%20Science.pdf
2. Science Grade 2 - Chicago Public Schools · cps.edu · https://www.cps.edu/sites/skyline/curriculum/science/grade-2/
3. Plant and Animal Habitats · repository.library.noaa.gov · https://repository.library.noaa.gov/view/noaa/39080/noaa_39080_DS1.pdf
4. Food, Water, Shelter, Space - U.S. National Park Service · nps.gov · https://www.nps.gov/common/uploads/teachers/lessonplans/HALE%20HABITATS%20Food%20Water%20Shelter%20Space.pdf
5. Plant and Animal Interactions - Government of New York · extapps.dec.ny.gov · https://extapps.dec.ny.gov/docs/remediation_hudson_pdf/hrlpplantandanimalk2.pdf
6. Classroom Investigation Series Habitats and Wildlife · blm.gov · https://www.blm.gov/sites/default/files/documents/files/media-center-public-room-national-wildlife-habitat-classroom.pdf
7. Plants, Animals, and Ecosystems | A Student's Guide to Global ... · archive.epa.gov · https://archive.epa.gov/climatechange/kids/impacts/effects/ecosystems.html
8. Living things and their habitats - KS1 Science - BBC Bitesize · bbc.co.uk · https://www.bbc.co.uk/bitesize/topics/zx882hv
9. What is a habitat? - KS1 Science curriculum - BBC Bitesize · bbc.co.uk · https://www.bbc.co.uk/bitesize/articles/znjxb7h
10. Habitat investigation: Science primary resource | National ... · natgeokids.com · https://www.natgeokids.com/uk/primary-resource/investigating-habitat-primary-resource/
11. Habitats Primary Resources | National Geographic Kids · natgeokids.com · https://www.natgeokids.com/uk/teacher-category/habitats/
12. Habitat destruction · en.wikipedia.org · https://en.wikipedia.org/wiki/Habitat_destruction
13. Habitat Facts for Kids · kids.kiddle.co · https://kids.kiddle.co/Habitat
14. Freshwater Habitat | National Geographic Kids · kids.nationalgeographic.com · https://kids.nationalgeographic.com/nature/habitats/article/freshwater