What Plants and Animals Need to Live

Teacher		**Class**	Kindergarten
Subject	Science	**Topic**	What animals and plants need to survive
Date		**Room**	
Lesson length	60 minutes	**Country**	United States

Students learn the pattern of what plants and animals need to survive. They sort picture cards and observe to show those needs.

Curriculum links

- Use observations to describe patterns of what plants and animals (including humans) need to survive. [4]

Learning objectives

- Students will sort pictures to show what plants and animals need to live.
- Students will describe patterns in what living things need to stay alive.
- Students will tell what people need each day, like food, water and air.

Success criteria

- I can sort pictures to show what plants need and what animals need.
- I can say the pattern of what living things need to stay alive.
- I can tell what people need each day to live and grow.

What students already know

Show Slide 2 vote: Which would you like to care for - a little plant, a pet fish, a puppy? Ask: What would you give it on the first day?

Key words

need	something you must have to live [3]
survive	to stay alive and grow [7]
shelter	a safe home to live in [5][6]
water	the drink that people, animals and plants use to live [3][5]
light	sunshine that helps plants grow tall and green [4]
air	what moves in and out when we breathe [7]

Materials

- Slides 1-12, tested sound for Video clip 1 and Video clip 2
- Picture cards: sun, watering can, air wind swirls, seeds, apple, sandwich, nest, space to grow
- Two hoops or trays labeled Plants and Animals
- Worksheet page 5 copies: Label the pictures: Match each need to the right picture

Before the lesson

- Print Worksheet page 5, one per student, and picture card sets for each group
- Set out two hoops labeled Plants and Animals and sort cards into mixed piles
- Load Slides 1-12 and test Video clip 1 (0:00-5:00) on slide 6 and Video clip 2 (0:00-1:49) on slide 8
- Clear floor space for sorting groups and song movement

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- Crayons and clipboards

Lesson outline

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

Hook interest and surface what students think plants and animals need.

YOU DO

1. Show Slide 1 What Keeps Us Alive? and read the title together.
2. Show Slide 2 You Choose vote with a little plant, a pet fish, a puppy and take a hand vote.
3. Use the hook: hold up mixed picture cards and say we have a mixed-up picnic for plants and animals.
4. Chart 3-4 student ideas on the board without correcting yet.

STUDENTS DO

1. Vote for a plant, fish, or puppy and say what they would give it first.
2. Look at the mixed cards and name what they see.
3. Repeat: Living things need things to stay alive.

Say: We are going to be scientists today. Plants are living things. Animals are living things. We are living things, too. We have a mixed-up picnic. Can you put everything where it belongs?

Ask: What do you think a puppy drinks when it is thirsty? (Water to drink.) · What do you think a little plant drinks? (Water, too.)

Check understanding: Thumbs up if you can name one thing a pet needs. If unsure, repeat answers together and point to the cards.

Support: Let students answer by pointing to a card and saying one word, then repeat the full sentence with them. **Stretch:** Ask students to compare a baby, a student, and a grown-up and tell if the needs stay the same.

Use: Slides 1-2

10–22 min **Teaching** 12 min · Whole class

Model how to observe and name the pattern of needs for plants and animals.

YOU DO

1. Show Slide 3 Living Things and have students point to self: We are living things.
2. Show Slide 4 Thirsty Plant with leaves hanging down and model observing color, droop, and dry soil.
3. Show Slide 5 mystery Light! that bends to the window and Slide 7 Key words need, survive, shelter.
4. Play Slide 6 Video clip 1 Plants and animals needs and pause to name plant needs and animal needs.

STUDENTS DO

1. Observe the plant pictures and describe: leaves hang down, soil looks dry.
2. Watch the video and call out when they spot food, water, air, or shelter.
3. Practice key words: need means must have to live, shelter means safe home.

Say: Look close like scientists. This plant droops. Its leaves hang down. Plants depend on water, light and air to grow [4]. Animals need food, water, shelter, and space to survive [5]. Animals need air, water, shelter and food to survive [7].

Worked example: Watch me think: I see droopy leaves and dry soil. That is a pattern. Dry soil plus droopy leaves means thirsty. I predict water will help it stand up, because water revives a wilted plant [3].

Ask: What do you see that tells you the plant is thirsty? (Leaves hang down, looks droopy, soil is dry.) · What do plants need besides water to grow well? (Light and air, plants depend on water, light and air [4].) · What do animals need to survive? (Food, water, air, and shelter, a safe home [5][7].)

Check understanding: Show fingers 1-4 to name four animal needs. Reteach any missing one with its picture card before moving on.

Support: Give a sentence frame to touch and say: The leaves feel ___. The soil feels ___. **Stretch:** Ask students to predict what happens if the plant is put in a dark cabinet for days [3].

Use: Slides 3-7, Video clip 1 (0:00–5:00)

22–42 min **Main activity** 20 min · Groups

Sort picture needs to show the pattern for plants and animals.

YOU DO

1. Show Slide 9 Your task: In pairs look close, tell what each needs to live.
2. Model one sort: hold up watering can, place it to touch both hoops because both need it.
3. Send small groups to place cards into Plants hoop and Animals hoop and talk about why.
4. Show Slide 10 Big idea: Living things need water, air and food. Plants also need light; animals need a safe place.

STUDENTS DO

1. In small groups place cards: sun, watering can, air swirls, seeds, apple, sandwich, nest, space to grow.
2. Tell why each card goes where it goes.
3. Show sorted hoops and say the pattern: Both need water, air, and space, but only animals eat food and only plants need light.

Say: Your job is to sort pictures to show what plants need and what animals need. Talk with your group. Plants and animals need air, water, light for plants only, space, food and shelter found in their environment [3]. Some needs are the same. Some are different.

Worked example: My turn: sun card. Plants need light to stay green and tall. Animals do not need light the same way. So sun goes in Plants. Watering can: plants drink with roots, animals drink with mouths. Both need it, so it goes in the middle to touch both hoops.

Ask: Where does the sandwich go, and why? (Animals, only animals need to eat food [3].) · What does both a plant and a puppy need? (Water and air and space to grow.)

Check understanding: Groups hold up hoops and chant their sort. Visit any group with sandwich or sun misplaced and resort those two together.

Support: Start with only four very clear cards, water, sun, sandwich, shelter, and sort together step by step.
Stretch: Students find one card that both plants and animals need and explain how each uses it differently.

Use: Slides 9-10

42–52 min **Human needs and song** 10 min · Whole class

Connect the pattern to humans and lock it in with song and movement.

YOU DO

1. Ask: You are animals too. What did you already need today before school?
2. Chart repeated answers for food, water, and air to show the pattern.
3. Play Slide 8 Video clip 2 Plants and animals needs song and lead eating, drinking, breathing, hiding moves.
4. Add that animals, including humans, have basic life needs that allow them to survive [1], including air, water, and food for energy and growth [3].

STUDENTS DO

1. Share what they ate, drank, and how they breathe, pointing to chart pictures.
2. Sing and move to show eat, drink, breathe, and hide for shelter.
3. Freeze and chant: Animals need food, water, air, shelter.

Say: You are animals, too. This morning you ate breakfast. You drank water. You breathed air all night and day. Living things have basic needs for energy and matter to survive [1]. Plants use matter and energy to grow [1].

Ask: What do people need every day to live? (Food, water, and air.) · How do you get air? (Breathe with nose and lungs; lungs bring in oxygen [7].)

Check understanding: All point to chart and finish: People need ___ to live. Repeat any missing need together with its action.

Support: Pair students as partners who move together and copy the action of the group. **Stretch:** Students act out how their animal breathes or drinks there, like sipping, lapping, or big breaths.

Use: Slide 8, Video clip 2 (0:00–1:49)

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52–60 min **Plenary** 8 min · Whole class

Check the pattern and show learning on the matching sheet.

YOU DO

1. Reread Slide 10 Big idea and have class say it with you.
2. Do Slide 11 Think, pair, share: What happens if a plant gets no water?
3. Hand out Worksheet page 5 Label the pictures and have students match each need to the picture.
4. Finish with Slide 12 Quick quiz: What do plants drink? What gives light? What do animals eat? What do we breathe?

STUDENTS DO

1. Say the big idea and pair-share what happens with no water.
2. Complete Worksheet page 5 by matching each need to the right picture.
3. Answer the quick quiz with hand signals and words.

Say: Let us say our big idea together. Living things need water, air and food. Plants also need light; animals need a safe place. Now show it on your sheet. Match each need to the right picture. Then tell a partner what happens with no water.

Worked example: Quiz together: What do plants drink? Water. What gives light? The sun. What do animals eat? Food. What do we breathe? Air.

Ask: What happens if a plant gets no water? (Leaves droop, it wilts and cannot stay alive and grow.) · Which need is only for plants, not for animals to eat? (Light; only animals need to eat food [3].)

Check understanding: Collect Worksheet page 5 and do Slide 12 quiz hands-up. If shelter is missed, remind that shelter protects from predators and weather [6].

Support: Read each worksheet picture aloud and let students point and draw a line with a helper. **Stretch:** Students add one more spot on the back where their animal finds food and water in its habitat, which has everything it needs [5].

Use: Slides 11-12, Worksheet page 5

Common mistakes

Mistake	How to spot it	How to fix it
Thinking plants eat food like sandwiches just as animals do.	Puts apple or sandwich card in Plants hoop.	Resort sun and sandwich: only animals need to eat food and only plants need light [3]. Plants depend on water, light and air to grow [4].
Thinking people are not animals and do not have the same needs.	Says people do not need shelter or water like animals.	Remind that animals, including humans, have basic life needs to survive [1], including air, water, and food [3].
Thinking shelter is only a house.	Cannot find shelter for toy animal except a house.	Show nest, burrow underground, and shell: some find shelter in shells and some live underground in burrows [6] [7]; shelter protects from predators and weather [6].

Support

- Sort with only four very clear cards first, water, sun, sandwich, shelter, step by step.
- Use sentence frames and pointing: The leaves feel ___. People need ___ to live.

Stretch

- Find one card both plants and animals need and explain how each uses it differently.
- Predict and count how pale a dark-covered plant gets and compare sunny and shady spots.

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- Offer a half-started shelter or hoop sort so the student finishes one part.
- Add food and water spots next to a built shelter and label what each part gives.

For the LSE or teaching assistant

Stay with sort groups: read card pictures, guide the 4-card sort first, and scribe the pattern sentence for writers. In plenary, read Worksheet page 5 aloud one item at a time.

Check for understanding

Question	Answer
Name two things both plants and animals need to survive.	Water and air (and space).
What does a plant need that an animal does not need the same way?	Light.
What do people need every day to live?	Food, water, and air.

Sources

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