

# SCIENCE

## Lesson 4

### Prep

#### Topic: The needs of living things

#### Reflecting on familiar living things

##### Lesson concepts

- Living things have basic needs
- Science involves exploring and observing the world
- Questions can obtain responses
- Observations can be made using the senses
- Observations can be discussed and ideas can be represented
- Observations and ideas can be shared

##### Learning alerts

###### Be aware of:

- students not recognising that pets are reliant on people to meet their needs.

###### Suggested next steps for learning

- Identify a need and clarify how it is met through actions taken by people.

Today students will:

- ▶ understand that familiar living things have needs essential for survival.

### Resources

#### Find and prepare

Sheet — 'What do I need?' word list  
(cut up into word cards and store before lesson)

Sheet — Do pets have needs?

Sheet — Representing the needs of a pet

materials to make a representation of a pet and its needs, for example: drawing, collage, modelling dough, painting, construction camera (optional)

recording device, for example: mobile phone to record conversation (optional), or writing materials

### Key terms

needs, shelter,  
living things

For definitions and explanations of terms, please see the [Glossary](#).

## Lesson

### Extend understanding of living things and their needs

#### Say to students

‘ In this science lesson, we are going to look closely at the needs of living things. ’



Display the words from the **Sheet** — [‘What do I need?’ word list](#).

Select the word ‘needs’.

#### Say to students

‘ This word says ‘needs’. We will use the other word cards to help us think about the things we do in a day. If we think the word is something we need to survive, we will put it on the left with the ‘needs’ card. If we decide it is something we like because it keeps us healthy or is fun, we will put it on the right. ’

Ask students to suggest actions/things they do every day and help them select the matching card.

Read each card and invite students to decide on its grouping. Food and water are likely to be identified as a need quite quickly. Needing to go to the toilet may also be suggested as a need.

#### Note

Needing to go to the toilet (eliminate waste) may be difficult to group but can be explained by telling students that we need to eat and drink and that these actions result in us having to go to the toilet. Going to the toilet is a physical response (consequence) to eating and drinking.

If students nominate actions such as cleaning teeth as needs, explain that these actions are important to keep us healthy but are not essential to our survival. Similarly, students may think that they need things like televisions, toys, cars, and shoes; however, if these things were no longer available to us, we would still be able to live/survive.

#### Say to students

‘ Not all living things need sleep the way that people need sleep, some animals like fish, only rest. Plants don’t sleep, but they do change what they do when it is dark. Most living things need a place to be safe. We call this need ‘shelter’. ’

Note

Plants are thought to tune themselves to a 24-hour circadian rhythm similar to humans, and they do shut down certain processes like photosynthesis when the sun goes down. Some plants also close their flowers or leaves at night. Sunlight is a trigger to plants for the control of growth and development.

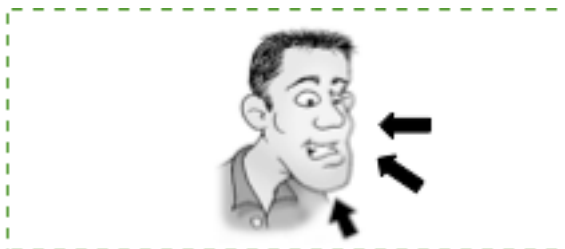
Select the 'shelter' card from the word list.



Say to students

People need shelter so they can stay healthy. A person trying to live in an area with freezing ice or in the middle of the desert would not survive without clothing to protect them and a place to shelter. Animals also look for places to take shelter from the weather, from other animals trying to eat them, or to sleep.

Select the 'air' card from the word list.



Say to students

Air is something all living things need to survive. People breathe air in and out of their lungs. Animals also need air to survive; however, some may breathe in different ways to humans. Fish can breathe underwater because they use gills. Science has shown us that plants take in air through their leaves and would die without it.

Select the 'warmth' card.



### Say to students

‘ The sun is what warms us. The sun is very important for our planet Earth and living things. ’

Ensure all word cards are discussed and grouped.

Point to the words that are **not** considered basic needs.

### Say to students

‘ These are the things that we like to have, but they are not necessary for us to survive. They can be important to us and can help us in our everyday lives. For example, if we didn’t have a car to drive us to where we needed to go, we might have to walk long distances; therefore, cars are helpful for us to have. We need to understand that we would still be living if we didn’t have these things. ’

Select the word cards in the ‘need’ pile (including food and water).

### Say to students

‘ These are the things we have decided we need to stay alive. We can check this by thinking about what it would be like if we didn’t have them. ’

### Focus questions

Q: *What do you think would happen if there were no places to find shelter or clothes to protect us?*

A: For example: We would have to stay out in the cold or the burning heat, we could get very sunburned, unless we could find a place to shelter we would not survive for very long.

Q: *Why do you think we need food to survive?*

A: For example: Food helps our whole body work and keeps it healthy. It gives us the energy to do all that we do.

Q: *What about the other needs like water or air? Could we live without them?*

A: For example: No, we could not live without these.

## Discuss pets as living things with needs

### Say to students

‘ We are now going to think about the things we have identified as needs and whether they are the same for pets. ’

## Focus questions

Q: *Do you think pets have needs?*

A: Personal response required.

Q: *Why do you think this?*

A: For example: Our dog is a pet and he needs things.

Q: *Which of the needs we have just talked about do you think a pet needs?*

A: For example: Food, water and air.



Display and read through the **Sheet** — [Do pets have needs?](#)

Do pets have needs?

Did you know that pets are living things?



Like all living things, there are some basic needs that we have so that we can stay alive.



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## Say to students

Most people love and look after their pets very well. They might cuddle them, bathe them, play with them and brush them. While these things are important and make our pets happy, we don't call these basic needs because they are not essential for survival.

## Focus questions

Q: *If we had a pet fish where might it live?*

A: In a fish tank, in a pond.

Q: *Do you think the fish could leave its tank or pond if people were not looking after them properly?*

A: For example: No, they could not move from the pond or tank by themselves.

### Say to students

‘ Pets completely depend on their owners to look after them and to provide for their needs. It is important that we remember that pets are living things and must have their needs met by their owners in order for them to survive. ’

## Examine the environment for pets

### Say to students

‘ We are going to talk about a pet that you know a lot about. Think about a pet that you know how to take care of. ’

### Note

If students do not have a pet of their own to talk about, have them think of a pet owned by a friend or relative, or recommend an animal that they might like to have as a pet.

### Focus question

Q: *Which pet have you decided on?*

A: Personal response required.

### Say to students

‘ Think about how the needs of this pet are provided for. You are going to show me your science knowledge about the needs of living things by representing what a pet needs. ’

### Note

A representation is a visual model, drawing, painting, construction or collage that indicates a likeness to or represents an object or thing. Other representations in science include graphs and tables.

Choose a method for representing the needs of living things, for example: drawing, modelling with clay, construction, collage, painting.

Allow time for students to construct a representation showing their chosen animal and its needs.



**Optional activity:** Take a photo and attach to **Sheet** — [Representing the needs of a pet](#). Scribe student's description of the animal representation.

### Note

If students need support, prompt with open-ended questions rather than questions requiring yes or no answers.

### Focus questions

Q: *Tell me about what you have created?*

A: For example: this is where my pet sleeps; this is his water dish, this is some food.

Q: *Do you think your pet will survive and why?*

A: For example: Yes, because I've given him food, water, shelter and there is sun and air where we live.

Q: *What have you learned about living things that helped you construct this representation (drawing/collage)?*

A: For example: I learned that living things all have needs. Pets need people to meet their needs.

Q: *Who do you think studied living things to find all these things out and share with us?*

A: Scientists.