SCIENCE

Lesson 7

Year 1

Topic: Habitats and living things

Considering habitats that don't meet the needs of living things

Lesson concepts

- Living things live in different places where their needs are met
- Science involves asking questions and describing changes
- People use science in their daily lives
- Questions can be responded to and posed
- Observations can be collected and recorded
- Observations can be compared with others
- Observations and ideas can be represented and communicated

Today students will:

- identify an unhealthy habitat.

Resources

Digital

Video — Backyard investigation (2:10)

Slideshow — Healthy and unhealthy habitats

Sheet

Sheet 14 — Field study record: Unhealthy habitats

Find and prepare

Photographs of healthy habitats taken during the field walk in Lesson 5 (Fortnight 9)

Digital camera

Magnifying glass

Protective gloves

Protective eyewear

Hat

Clipboard

Exercise book or scrapbook

Resources (continued)

Find and prepare (continued)

Prior to the lesson, consider areas in the local environment to observe that have a variety of unhealthy habitats, for example: a polluted area, a dry and dusty area under a tree, a garden where the plants have died or been trampled. Take care not to touch harmful substances or other sources of pollution.

Key terms

unhealthy habitat

For definitions and explanations of terms, please see the Glossary.

Learning alerts

Be aware of students thinking that the term *unhealthy* refers only to people being sick.

Suggested next steps for learning

Explain that *unhealthy* is the opposite of *healthy.* Although unhealthy people can be sick, habitats are considered unhealthy rather than sick if they do not provide for the needs of living things.

Lesson

Explore unhealthy habitats

1. In a previous lesson, students may have looked at, drawn or taken photos of healthy habitats. Alternatively, look outside or on the internet for some healthy habitats.

Focus question

Q. *Why do you consider these habitats to be healthy?*

A. For example: They provide food, water, shelter and light for living things.

Say to students

“Remember, a healthy habitat is one that provides for the needs of living things.

Think about what an unhealthy habitat might look like.”

Focus questions

Q. *What would an unhealthy habitat look like?*

A. For example: There wouldn’t be many living things; there might be lots of rubbish; there wouldn’t be much water or light.

Q. *Why would the habitat be considered unhealthy?*

A. For example: It doesn’t provide for the needs of living things.

Investigate an unhealthy habitat

Say to students

“It is science knowledge that tells us about whether a habitat is healthy or unhealthy.

You are going to use your science knowledge to find out about unhealthy habitats in your local environment.”

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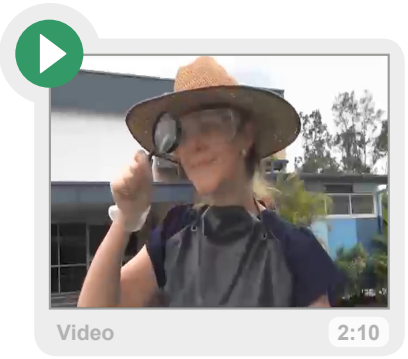
2. View the **Video — Backyard investigation** again.

   This video demonstrates the use of appropriate and safe clothing when conducting science investigations outdoors, the appropriate treatment of living things and the use of a magnifying glass.

   Inform students that they need to pay attention to the safety rules, although they will not be collecting any plants or animals.



Focus question

Q. *Where do you think we would find some unhealthy habitats close to us?*

A. For example: There is rubbish in the pond; the soil is very dry and dusty under the tree; the plants in the garden have died.

3. Select one area of the local environment in which to observe unhealthy habitats.

   a. Distribute **Sheet 14 —** Field study record: Unhealthy habitats.

   b. Support students to read and complete information on page 1 of **Sheet 14**.

Note

The field study should still be conducted for observation of an unhealthy habitat.

Remind students that they should not touch anything unless directed to do so.

Photograph or draw a picture of the area you are investigating. Attach the photo or drawing to **Sheet 14** after the walk.

4. Explain to students that they will now go outside with you on a field walk to observe some unhealthy habitats in the selected area.

   a. Tell students that they are to take **Sheet 14**, a pencil, a clipboard and a camera for recording their observations.

   b. Remind students about safety precautions as in the video:

      - Wear a sun-safe hat and protective shoes.
      - Be careful when touching certain materials, for example: thorns.
      - Be on the lookout for tiny creatures that may harm or be harmed.
      - Leave the plants intact by not removing any parts.
      - Wash their hands when returning from the walk.

c. Lead students outside to identify and observe the area selected, for example: a garden bed where the plants have died, a dry and dusty area under a tree, a polluted pond.

Focus questions

Q. *Why do you think this area is unhealthy?*

A. For example: The plants are dead, the water is dirty and fish won't be able to live here.

Q. *Do you think anything could live here? Why/Why not?*

A. For example: Not much could live here because it is very dry; there is very little water and not much food for living things.

Say to students

"Observe and photograph a variety of unhealthy habitats in the area.

Choose one of the unhealthy habitats to make more detailed observations about.

Record your observations on page 2 of your sheet by circling the different types of living things, and other things, you can see."

Focus questions

Q. *What, if anything, do you think might live in this habitat?*

A. For example: birds

Q. *What could be preventing the needs of that living thing from being met?*

A. For example: They could get sick from drinking the polluted water; a plastic bag could get stuck around the animal's neck.

Q. *What makes this habitat unhealthy for living things?*

A. For example: There is pollution and no clean water.

Analyse findings

5. Return indoors.

   a. Remind students that science knowledge is used to determine why a habitat is considered unhealthy.

   b. Instruct students to add the photograph of the habitat they observed in detail to page 1 of **Sheet 14**.

   c. Refer students to page 3 (the final page) of **Sheet 14**. Read the title 'Our conclusion' with students.

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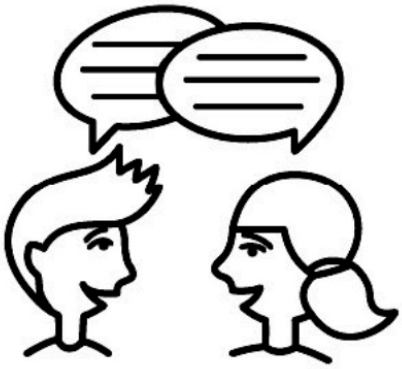
Focus question

Q. *Why do you think this habitat is unhealthy?*

A. For example: The plants are dead, the water is dirty and fish won't be able to live here.



d. Instruct students to complete the sentence, 'I think this is an unhealthy habitat because …', by writing a reason related to the needs of living things, for example: the water is dirty and fish won't be able to breathe or find any food. (Scribe the student's response, if necessary.)

6. Display the photographs and/or drawings of healthy and unhealthy habitats taken throughout the lessons. Invite students to observe the photographs closely and make comparisons between the habitats, noting any similarities and differences between the healthy and unhealthy habitats observed.

Use knowledge to improve habitats

Say to students

"Science knowledge is used to determine whether a habitat is healthy or unhealthy.

Science knowledge can be used to improve habitats to care for living things."

7. Review the **Slideshow — Healthy and unhealthy habitats**.
   a. Read and discuss the information on each slide, comparing features of the healthy and unhealthy habitats.
   b. Ask students to suggest actions that could be taken to improve the habitats to make them suitable for the living things.

Slideshow

Say to students

“Scientists ask ‘What could happen if …?’ questions to help them find out about what could happen if improvements were made to habitats.”

8. Ask students to think of their own questions about changes that could be made to habitats to make them healthy, for example:
   - What could happen if more plants were planted? (For example: More creatures could find homes there; there could be more food for caterpillars.)
   - What could happen if a fence was built so no-one walked through? (For example: The plants could be stopped from being squashed or killed by people walking on them.)

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