# Living world - What do we notice about living things?

**Learning sequence description**

Students learn about the characteristics and needs of living things. They recognise that living things have basic needs including air, food and water. Students apply their learning by investigating the growth of a living thing.

## Syllabus outcomes and content

**STe-1WS-S** – observes, questions and collects data to communicate ideas

* respond to questions about familiar objects and events
* record observations using drawings, simple digital recording methods, oral descriptions and/or simple visual representations

**STe-3LW-ST** – explores the characteristics, needs and uses of living things

* recognise that living things have basic needs including air, food and water
* compare the basic needs of some plants and animals
* communicate findings of observations of living things in their environment

**STe-7DI-T** – identifies digital systems and explores how instructions are used to control digital devices

* explore how people use digital systems to communicate
* follow and describe a sequence of steps (algorithms)

[Science and Technology K-6 Syllabus](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/science/science-and-technology-k-6-new-syllabus) © 2017 NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales.

## Lesson 1 – What do we notice about living things?

Students are learning to:

* identify some characteristics of living things
* respond to questions about living things
* record observations using drawings, oral descriptions and simple visual representations
* apply their knowledge of living things to new examples.

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| Item | Learning experience | Differentiation strategies and/or adjustments | Resources |
| 1.1 | Ask students ‘What is a living thing?’  Using a KWL chart (resource 1), record their responses in the ‘what I know’ column. Some of their responses could be – it moves, it eats and drinks, it produces wastes (most students are likely to say that it poos and wees), it breathes.  Ask students ‘How do we know something isn’t living?’ Some of the responses could be – it stays in the same spot, it doesn’t need food or water, it doesn’t breathe.  Using the images from the student workbook – activity 1 (resource 2), ask students what are some examples of living and non-living things. |  | Resource 1 – KWL chart  Resource 2 – student workbook – activity 1 – Is it a living thing? |
| 1.2 | Ask student what would they like to know about living things? Record their responses in the ‘what we wonder’ column of the KWL chart (resource 1).  Encourage students to go for a walk around their home, both inside and outside.  Ask students to choose two living things, record and demonstrate their learning about the characteristics of living things using a labelled drawing in the student workbook (resource 2). Students should explain their choices to their parent or carer. |  | Resource 1 – KWL chart  Resource 2 – student workbook – activity 1 – Is it a living thing? |
| 1.3 | **Opportunity for monitoring student learning**  Recording observations – presentations (drawn and written)  Students draw two living things and label their drawings.  **What to look for**   * draws two living things (for example a bird, tree, family) * labels their drawings (for example bee – wings, body) * explains to their parent or carer why their drawing represents a living thing (for example a bee moves and breathes) |  |  |
| 1.4 | Revisiting the KWL chart (resource 1), ask students if there are new facts to add to the ‘what we know’ column. Record the new facts. Together with the students, cross out any questions in the ‘what we wonder’ column that have been answered. |  | Resource 1 – KWL chart |

## Lesson 2 – What are the basic needs of living things?

Students are learning to:

* identify basic needs of living things including air, food and water
* follow a sequence of steps and decisions (algorithms) needed to solve problems
* record observations using drawings, simple digital recording methods and oral descriptions.

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| Item | Learning experience | Differentiation strategies and/or adjustments | Resources |
| 2.1 | Ask students the following question. What do living things need to stay alive?  On the KWL chart (resource 1), write their responses in the ‘what we know’ column. Examples of their responses could be food, water, shelter, family and love.  View a video about basic needs of living things such as visit a wombat orphanage or talking about turtles or pretty parrots (resources 3, 4 and 5).  Identify basic needs of animals from the video, such as energy from food (grass, sea grass, seeds), water, air, shelter/safety (burrow, sand, tree hollow), love.  After viewing the video, ask students if the responses match what was written on the KWL chart (resource 1). What other facts can be added to the ‘what we know’ column? |  | Resource 3 – [visit a wombat orphanage (website – ABC Education)](https://education.abc.net.au/home#!/media/2169828/visit-a-wombat-orphanage)  Resource 4 – [talking about turtles](https://education.abc.net.au/home#!/media/2524260/talking-about-turtles) (website – ABC Education)  Resource 5 – [pretty parrots](https://education.abc.net.au/home#!/media/2524356/pretty-parrots) (website – ABC Education)  Resource 1 – KWL chart |
| 2.2 | Explain to students that they will investigate the growth of a bean.  Show students the resources they need (resource 6).  Follow the instructions in the student workbook (resource 2). A parent or carer may need to assist their child to set up the bean investigation.  Tell the students that you will put your zip lock bag in the kitchen cupboard.  Ask students to describe the sequence of steps they undertook to set up the investigation.  Ask students to predict or guess what will happen during this bean investigation.  Record the students’ predictions.  Over the next 5 days, students draw or take photos as they observe their zip lock bag.  After the 5 days, ask students to share pictures of their zip lock bags.  Revisit the students’ predictions. Were they correct? Ask students, what they noticed about the bean? What do they think beans need to grow? |  | Resource 6 – materials required for students:  Zip lock bag  Paper towel  Dried beans (you may like to soak the beans overnight)  Sticky tape  Resource 2 – student workbook – activity 2 – bean investigation |
| 2.3 | **Opportunity for monitoring student learning**  Bean investigation – practical activities  Students follow a sequence of steps to set up their bean investigation. They record their observations over 5 days. Students share their observations with the class.  **What to look for**   * follows and describes a sequence of steps (algorithms) to set up the investigation (for example, first I got all my materials. Then I put a little water on the paper towel to make it wet). * records observations over 5 days in student workbook (for example, I saw a little leaf coming out of the bean) * shares observations with the class. |  |  |
| 2.4 | Discuss how Aboriginal and Torres Strait Islander Peoples have shown respect and care for living things in Australian environments over many millennia in their role as custodians of the land. For example, over millennia Aboriginal people only hunt what is needed to provide for their daily needs (resource 8, Content elaborations and teacher background information for Foundation to Year 6, pp. 25-29). Resource 8 contains links to further resources and information.  Students watch ‘Learn some of the Noongar language’ video (resource 9). Ask the following questions.  Do you recognise any of the plants?  Which plant did you find interesting and why?  What is the Noongar name for the kangaroo paw (yonga – male kangaroo, marr – hand/paw)?  What is kangaroo paw used for? (for food and medicine)  What tree do the women use to make their digging stick? – (the peppermint tree).  Ask students to complete activity 2 – bush tucker in their student workbook (resource 2). Warn students not to eat any plants or fruits they may see when they go for walks. They should check with their parent or carer first. |  | [Resource 8 – Australian Curriculum Science Aboriginal and Torres Strait Islander Histories and Cultures](https://www.australiancurriculum.edu.au/f-10-curriculum/cross-curriculum-priorities/aboriginal-and-torres-strait-islander-histories-and-cultures/)  (website – links to PDF of elaborations and teacher background information booklet)  Resource 9 – [Learn some of the Noongar language](https://education.abc.net.au/home#!/media/2307474/learn-some-of-the-noongar-language) (website – ABC education)  Resource 2 – student workbook – activity 2 – bush tucker |
| 2.5 | Revisit the KWL chart with the students. Are there any further questions in the ‘what we wonder’ column that hasn’t been answered?  Ask students to share new information they have learnt from the learning sequence.  Record students responses in the ‘what I have learnt’ column. |  | Resource 1 – KWL chart |

Reflection and evaluation

These simple questions may help you reflect on your students’ learning and plan for next steps.

What worked well and why?

What didn’t work and why?

What might I do differently next time?

What are the next steps for student learning based on the evidence gathered?