# Living world - What are the external features of living things?

**Learning sequence description**

Students focus on the observable features of living things and their environment. Students follow and represent sequences of steps and decisions (algorithms) to solve problems.

## Syllabus outcomes and content

**ST1-1WS-S– observes, questions and collects data to communicate and compare ideas**

* explore and answer questions through participation in guided scientific investigations
* collect data form observations
* record observations accurately and honestly using observational drawing, labelling, informal measurements and digital technologies.
* make safe choices when using materials and equipment.

**ST1-4LW-S – describes observable features of living things and their environments**

* describe the external features of a variety of living things
* identify and group plants and animals using their external features

**ST1-3DP-T – describes, follows and represents algorithms to solve problems**

* follow and represent sequences of steps and decisions (algorithms) to solve problems.

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## Lesson 1 – External features of living things

Students are learning to:

* examine the features of living things
* sort and group animals based on their external features and functions.

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| Item | Learning experience | Differentiation strategies and/or adjustments | Resources |
| 1.1 | Ask students what are living things and where can we find them? What words would you use to describe a living thing? What words would you use to describe something that is non-living?  Ask students to be a detective in their house, backyard or at the local park and find 4 examples of living and non-living things in their house.  Students should explain in their workbook why they chose those items. |  | Resource 1 - Student workbook – Activity 1 Living and non-living things |
| 1.2 | What makes one kind of animal different from another kind of animal?  Ask students to have a look at the images of the 4 animals in the ABC education resource. Can they identify each animal? (elephant, peacock, iguana and meerkat)  Elicit responses from students by asking some of the following questions.  What do we notice about each animal?  What special features do they have?  What is the purpose of each external features? For example, dogs have fur for protection and to help regulate their temperature.  Students complete the student workbook – activity 2. |  | Resource 2 - [ABC education resource - skin and scales, feathers and fur](https://education.abc.net.au/home#!/digibook/1273965/skin-and-scales-feathers-and-fur)  Resource 3 - Student workbook - Activity 2 Animal features colour code |
| 1.4 | **Opportunity for monitoring student learning 1.2**  Animal features colour code – teacher observation  Students identify living things by sorting a group of images.  **What to look for:**   * identifies living and non-living things * groups living things based on their external features (for example the pictures of the owl and the emu are coloured green because they have feathers). |  | Resource 3 - Student workbook - Activity 2 Animal features colour code |

## Lesson 2 – Identify and group plants

Students are learning to:

* identify native and introduced plant species
* investigate ‘Bush Tucker’.

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| Item | Learning experience | Differentiation strategies and/or adjustments | Resources |
| 2.1 | Plants can be either **native** (have naturally occurred and existed in parts of Australia for many years) or they are **introduced** (brought here from another country by humans, either on purpose or accidently).  Students research the names and descriptions of 2 native plants that are common in their local area and print some pictures. |  | Resource 4 - Student workbook - Activity 3 Local native plant investigation |
| 2.2 | Native plants can be very poisonous for humans to eat. Aboriginal people know what plants are safe to eat and have passed this knowledge down for thousands of years.  Watch the Bush Tucker video to see how native plants can be used for food and medicine by Aboriginal people who know the difference between poisonous and safe bush foods.  Students complete the ‘Bush Tucker’ cloze activity. |  | Resource 5 - [Bush Tucker](https://www.abc.net.au/btn/classroom/bush-food/10530342)  (Video – ABC Education)  Resource 6 - Student workbook - Activity 4 Bush tucker cloze activity |
| 2.5 | **Opportunity for monitoring student learning 2.1**  Local native plant investigation– inquiry based research  **What to look for:**   * names and draws 2 local native plants in their area * writes a brief description of the plant (for example, The wattle is yellow. It is a tree.). |  |  |

## Lesson 3 – Identify and group animals

Students are learning to:

* identify and group animals based on their external features
* design a series of steps (an algorithm) to solve a problem.

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| Item | Learning experience | Differentiation strategies and/or adjustments | Resources |
| 3.1 | Students investigate how animals and plants are grouped according to their external features and how animals move by using this interactive sorting game called ‘Grouping Animals’.  Student sort the animals in the activity into four groups. Flying, swimming, walking and slithering. |  | Resource 7 - [Interactive sorting game grouping animals](http://www.crickweb.co.uk/ks1science.html#YoungAnimals)  (Online game based learning - Crickweb)  Resource 8 – Student activity 5 – Animal movement sort |
| 3.3 | **Opportunity for monitoring student learning**  Imaginary animal fact sheet – collection of student work  Create your own imaginary animal using the information you have collected in this learning sequence. Give your animal a name and describe how it moves, how long it lives, what it eats, what it looks like and where it lives.  **What to look for:**   * plans and writes details about imaginary animal * name of animal * describes how it moves * life span * diet * a description of what it looks like * habitat. |  | Resource 9 - Student activity 6 – Imaginary animal fact sheet |
| 3.4 | **Opportunity for monitoring student learning**  **Imaginary animal model and design algorithm – collection of student work**  Make a model of an imaginary animal using household items. Design a series of steps (algorithm) to describe how you made it and the materials you used (take pictures, if possible). Evaluate your design and think about you could improve your model.  **What to look for:**   * **sequenced steps that follow a logical order (for example, first I built the body of my animal out of cardboard)** * **drawings support the sequence** * identifies strategies to improve model. |  | Resource 10 - Student activity 7 – Imaginary animal algorithm |

**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?