



## Lesson 1

### Topic: Exploring living things

## Stages of development of living things

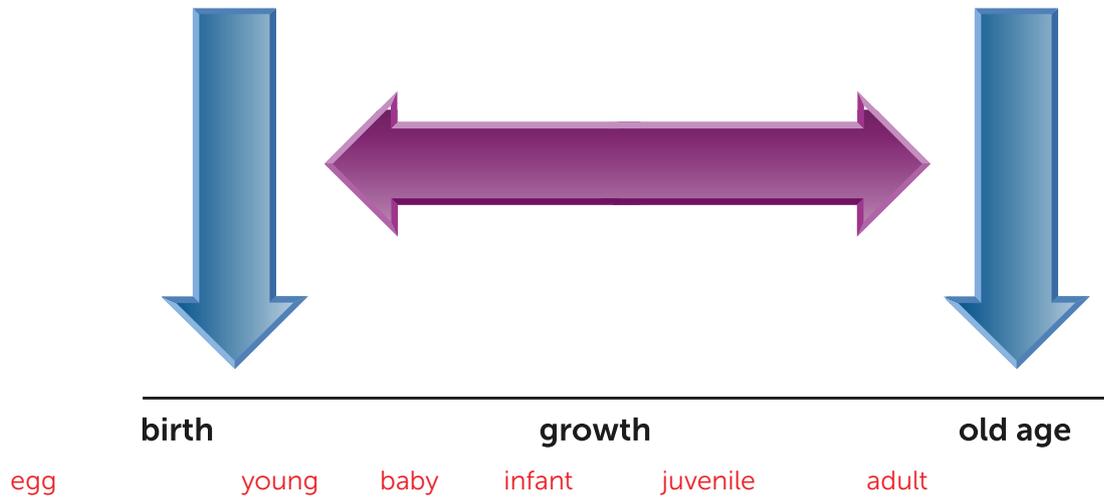
### Safety

- Monitor students and explain to them that no plants or plant parts are to be ingested.
- Ask students to wash hands after handling plants.
- Explain the safety aspects of observing and not handling animals encountered.
- Be sun safe when outside. Students should wear a hat, sunscreen and long-sleeved shirt.

### Lesson answers

1. Check your seed head from previous lessons and record your observations.
2. For example: Living things grow, move, have young and respond to stimuli. Non-living things don't grow, they can't move on their own, they don't have young or respond to stimuli.
3. Students draw a table in their Science journal.
4. No answer required.
5. For example: lizard, ant, bee, grass, feather, spider web
6. a) For example: some of the living things were ants and they moved quickly through the grass. The grass is a living thing but it did not move quickly like the ants.  
b) For example: I found a seed pod and a bird egg. I am not sure if they are living or non-living.  
c) For example: A puppy is a young dog and a calf is a young cow.  
d) For example: A life cycle shows the stages of development of an organism from birth to death.  
e) For example: Yes, because all living things become alive and continue to grow and develop until they die.  
f) There are many different life cycles for living things though similar organisms may have similar life cycles to each other.

7.



The term 'egg' and where it sits on the line could be a topic for discussion. The terms 'hatching' and 'birth' might be points the students can investigate further.

8. Students click on the [Slideshow 1 – Stages of development of living things](#) and view the different stages of development of living things. **No answer required.**

9.



## Lesson 2

### Topic: Investigating endangered species

## Exploring endangered species in the Asia and Pacific regions

### Lesson answers

1. No answer required.
2. No answer required.
3.
  - a) Endangered means that a species faces a high risk of becoming extinct in the near future.
  - b) No, all living things including plants and fungi can be endangered.
  - c) For example: Richmond Birdwing butterfly vine, northern hairy-nosed wombat, swamp orchid.
  - d) Organisations such as International Union for the Conservation of Nature (IUCN) have lists of species that are endangered. World Wildlife Fund and the National Geographic sites also have lists of species and classifications of the scale of endangerment.
  - e) For example: Local endangered species may receive more coverage in the local media; 'cute and cuddly' animals (for example, the panda) tend to receive much more attention than small or less 'attractive' animals (for example, insects) or plants.
4. Students can draw lines from word to definition or rewrite the definitions in their Science journal.

Term	Definition
<b>extinct</b>	This species is no longer in existence.
<b>endangered</b>	This species faces a very high risk of becoming extinct in the near future.
<b>vulnerable species</b>	This species faces a high risk of extinction in the medium-term.
<b>threatened species</b>	This species may be considered threatened in the near future.
<b>least concern</b>	There is no immediate threat to the survival of the species.

5. It is important we protect and conserve the living things on our planet so all species can survive.

6. No answer required.

7. No answer required.

8. For example:

The **snow leopard** is an endangered species found in the **mountain ranges of Central Asia** stretching from north-western China to Tibet and the Himalayas. The **snow leopard is endangered** because they were once hunted for their pelts which sold for a very high price in the fur market. Their bones and other body parts were also used in traditional Asian medicine. The snow leopards' habitat has also been restricted with overgrazing and there is competition with humans. All of these factors have caused the species to become endangered.

It is an important species because it keeps things in balance in its habitat by preying on native herbivores (plant-eating animals). If these herbivores become too dominant they will eat away the alpine meadows leaving no food for other animals.

Human actions have harmed the species because people hunted them for their fur and other body parts, destroyed their habitat, and introduced new species.

Humans are helping this species by creating agencies and organisations working to protect the snow leopard. There is research being conducted to learn about the animal. Zoos are creating habitats for snow leopards and trying to increase the population. Some laws have been created to protect the snow leopards. Local villages are also setting up programs to help them live with the snow leopard.

If the species is to survive it will need its habitat to be protected and humans to stop hunting it.

9. For example:

The consequences of a loss of species means a species is no longer alive for all to see. It affects the different relationships in the environment. Animals that are eaten by, or that eat, the species will be affected with numbers becoming too low or too high. Some animals spread seeds so if they disappear, some plants may also become endangered or even extinct. If some plants disappear there will no longer be that plant for animals that rely on it for food or shelter.

10. For example:

Students could learn what the endangered species needs to survive. They could bring awareness to people about that species and what it needs to survive. They could raise money to support conservation efforts.

### Topic: Investigating endangered species

## Researching Australian endangered animals

### Lesson answers

1. No answer required.
2. A mother dugong and her calf.
3. For example: the dugong is an endangered sea mammal that lives in the ocean.
4. No answer required.
5. Dugongs and marine turtles are important to Indigenous Australian peoples because they are a source of meat.
6. No answer required
7. Habitat: Coastal areas around Northern Australia, Torres Strait Islands, around the world. Wide, shallow, protected areas such as bays, mangrove channels and large inshore islands.

Diet: Seagrasses

Threats: Pollution, coastal development, boat traffic, entanglement in fishing nets and hunting.

What Indigenous Australian peoples and non-Indigenous Australians are doing to help the animal: reduce the speed of boats, keep ocean free from pollution, conserve natural habitat, and restrict development and hunting.

8. For example: Students may design a poster which includes Australian Indigenous peoples and non-Indigenous Australian people working together to save the dugong from extinction. There may be illustrations of boats going slow on the water, only Australian Indigenous peoples hunting the dugong and signs with no pollution.