

### Introductory activities (engage)

(10 minutes each)

As a class group brainstorm and record:

- What types of animals live in creeks, rivers and lakes?
  - Crabs, eels, fish, frogs, tadpoles, yabbies

Collate your answers on a flip chart or poster

Using the list add any features/behaviours that help these animals live in the water?

- Gills, fins, shells, swimming ability

Have students analyse the information they have collated and decide on how they could be grouped. E.g. animals with shells.

### Lesson 1 (explore)

(20 minutes)

Display or print copies of the Activity – Explore adaptations if the Tasmanian eel.

As a class group read/discuss:

- The features of the short-finned eel (page 1)
- The definitions of behavioural, physiological and structural adaptations (page 2)
- How the features on page 1 are categorised under behavioural, physiological and structural adaptations (page 2).

Materials	Quantity
Smart board or projector	1
Internet connection	1
Activity – Explore adaptations of the Tasmanian eel.	1 or 1 each
Activity – Explore adaptations of natives flora and fauna	1 each

#### Questions to explore:

1. Did the eel have eyes? (*yes*)
2. Is this a behavioural, physiological or structural adaptation? (*structural*)
3. To complete its lifecycle, adult short-finned eels migrate to the Coral Sea to lay their eggs. Ask students if they think this is a behavioural, physiological or structural adaptation? (*behavioural*)

#### Further exploration:

1. Ask your students to volunteer a behavioural, physiological and structural adaptation for their pet or other familiar animal.

Animal	Behavioural	Physiological	Structural
<b>Dog</b>	Use their kennel when the weather is cold/wet	Some dogs grow a thicker coat in winter to protect them from the cold	Eyes Ears Fur
<b>Cat</b>	Learn to use an indoor litter tray	Retractable claws	Eyes Ears Fur

## Options for assessment and extension

	Option/s
<b>Science –</b> <b>Science understanding / Science Inquiry Skills</b> <b>Individual Activity</b>	<p>Students work through the activity, Explore adaptations of native flora and fauna. They explore and analyse the adaptations of the Shannon paragalaxias and wetland plants.</p> <p>Students will:</p> <ul style="list-style-type: none"> <li>• Review and analyse the text provided</li> <li>• Create a table of the behavioural, physiological and structural adaptations listed in the document</li> </ul>
<b>Science –</b> <b>Science understanding / Science Inquiry Skills</b> <b>Individual Activity</b>	<p>Students choose an animal or plant to consider and research.</p> <p><b>Step 1</b></p> <p>They consider and make a list of all the features that animal or plant has that allows it to survive</p> <p>They create a table (or other representation) identifying and displaying how the characteristics can be grouped into behavioural, physiological and structural adaptations.</p> <p><b>Step 2</b></p> <p>They research their chosen animal or plant, cross-check (corroborate) their ideas and further add to their table.</p> <p><b>Extension</b></p> <p>Students consider what would happen if they moved the animal into a different environment.</p> <ul style="list-style-type: none"> <li>• Would any of the adaptations: <ul style="list-style-type: none"> <li>– help them adjust to their new environment?</li> <li>– make them unsuitable for the new environment?</li> </ul> </li> <li>• How could they overcome their difficulties to survive in the new environment?</li> </ul>
<b>Science –</b> <b>Science understanding / Science Inquiry Skills</b> <b>Individual Activity</b>	<p>Students create their own animal.</p> <p>They think about the environment that the animal is going to live in and create behavioural, physiological and structural adaptations to ensure that the animal is successful in that environment.</p> <p>Students present their ideas in a written report.</p> <p><b>Extension</b></p> <p>Students deliver a class presentation of their animal and its adaptations.</p>

## Elaborate and review

As a class group review:

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1. **What if the environment changes? What might an animal do to survive?**

*i.e. development, deforestation, dewatering, introduction of new species*

- a. It may change the way it behaves i.e. move to another location (to get away from the changes that threaten it or its survival).
  - i. e.g. marine animals shifting further south to cooler waters as a result of climate change (warming waters).

Redmap shows all the marine species around Australia that have been recorded in strange locations. It was developed in order to investigate range shifts due to climate change. <http://www.redmap.org.au/region/tas/>

- ii. Birds migrate to follow the warmer or cooler weather and food sources

2. **What if the animal does not adapt? What might happen?**

- a. It may die (e.g. dinosaurs)
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