

# GENERATION Year 3: Science

# Lesson Plan: Human impacts on life cycle of Tasmanian eels

## **Introductory activities (engage)**

#### (5 minutes)

Ask your students:

- How far do eels migrate as juveniles (young)?
- How far do eels migrate as adults?
- What could impact the elver's journey from the Coral Sea to Tasmania?

Create your answers on a poster or flip chart

How far to eels migrate?	What could impact this?
From the Coral Sea	Dams
(as juveniles)	Drainage
-	Fishing
To the Coral Sea (as adults)	Hydro development
	Irrigation schemes
	River diversion
	Water pollution

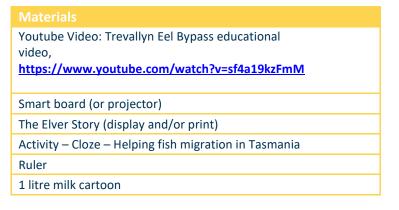
### **Lesson (explore)**

#### (20 minutes)

- 1. Display page one of *The Elver Story* to your class (found in unit).
- 2. As a class read through the problem and describe it

Discuss and explore:

- Look at your ruler, how big is 100mm in centimetres?
  - What things in your classroom might measure 10 centimetres?
- How long is 29 metres
  - Take your students outside and measure out 29 metres
- How big is a milk carton
  - Choose a classroom item (that you have multiple of, the same size i.e. pens) and investigate how many you can you fit in a milk carton
- What do you think the solution might be?
  - How can we come up with a reasonable estimate? What methods could we use?
  - Collate the methods on a poster or flip chart
- 3. Provide each student (or suitable for pairs or small groups) with a copy of *The Elver Story* to read through. As they read have students consider:
  - What human actions impacted the natural system?
    - Building the dam, changing the natural water course
  - How did we use science to understand these actions?
    - Study of natural behaviour (instinctively swim upstream, elvers are good climbers)
    - Talking to other scientists and incorporating the bio-textile material
- 4. Now watch the Trevallyn Eel bypass educational video to learn how adult eels migrate back to their spawning waters. How do they get back over the dam wall to the ocean? Video: <a href="https://www.youtube.com/watch?v=sf4a19kzFmM">https://www.youtube.com/watch?v=sf4a19kzFmM</a>
- 5. Discuss the solutions in the video as a class.





# **Options for assessment and extension**

	Activity
Science – Science Understanding Individual Activity	<ul> <li>Have students write a short piece describing:</li> <li>Why is the elver ladder and the eel bypass so important?</li> <li>protecting a vulnerable species</li> <li>assisting eels complete their life cycle</li> <li>minimising human impact on the environment</li> <li>supporting biodiversity</li> <li>How many different people in different roles had to work together to make the eel bypass a success?</li> </ul>
Science – Science Understanding /	Students explore/research their local community.     They identify a local species and consider what human activities may have impacted or influenced its habitat.
Science as a Human Endeavour  Class / Group Activity  Consider:  - Housing developments  - Infrastructure developments (  - Felling of trees	Consider:  - Housing developments - Infrastructure developments (e.g. roads, bridges, footpaths)
	Ask students exploratory questions such as:
	<ul> <li>What should occur before developing housing/infrastructure/other disruptions?</li> <li>How can science be used to monitor impacts?</li> </ul>
	Invite students to research
	<ul> <li>Local council policies or approvals procedures</li> <li>Interested community groups</li> </ul>

## **Elaborate and review**

As a class group review:

## What have you learnt?

- How did human activity impact on the eel's life cycle?
- How did we use science to find a solution to these impacts?

