

### 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?

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

Create your answers on a poster or flip chart

### 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 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. Discuss as a class

With students explore the Hydro Tasmania website: Helping Fish Migrate

<https://www.hydro.com.au/environment/environmental-water-management/fish-migration>

Have students complete the cloze activity *Helping fish migrate in Tasmania* (found in unit).

Materials	Quantity
Internet connection	1
Smart board (or projector)	1
The Elver Story (display and/or print)	1 ea
Activity – Cloze – Helping fish migration in Tasmania	1 ea
Ruler	1 ea
1 litre milk carton	1 ea / per group

## Options for assessment and extension

	Activity
<p><b>Science –</b> <b>Science Understanding</b> <b>Individual Activity</b></p>	<p>Have students write a short piece describing:</p> <ul style="list-style-type: none"> <li>• Why is the elver ladder so important?               <ul style="list-style-type: none"> <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> </ul> </li> </ul>
<p><b>Science –</b> <b>Science Understanding / Science as a Human Endeavour</b> <b>Class / Group Activity</b></p>	<p>Students explore/research their local community.</p> <ul style="list-style-type: none"> <li>• They identify a local species and consider what human activities may have impacted or influenced its habitat.</li> </ul> <p><b>Consider:</b></p> <ul style="list-style-type: none"> <li>– Housing developments</li> <li>– Infrastructure developments (e.g. roads, bridges, footpaths)</li> <li>– Felling of trees</li> </ul> <p><b>Ask students exploratory questions such as:</b></p> <ul style="list-style-type: none"> <li>• What should occur before developing housing/infrastructure/other disruptions?</li> <li>• How can science be used to monitor impacts?</li> </ul> <p><b>Invite students to research</b></p> <ul style="list-style-type: none"> <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?