

Turtle Trouble

Interactions between living things and their environment

Key inquiry question

How are freshwater turtles and their environment interdependent?

Science and Technology K-6

Outcomes

ST2 1WS S questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations

ST2 2DP T selects and uses materials, tools and equipment to develop solutions for a need or opportunity

Students

- describe how living things depend on each other and the environment to survive

Skills Focus

This series of lessons requires students to work through the design process to create a design to help turtle populations.

Planning and Conducting Investigations

- conduct scientific investigations to find answers to questions
- use appropriate materials and equipment safely (AC SIS054, AC SIS065)
- collect and record accurate, honest observations using labelled observational drawings, basic formal measurements and digital technologies as appropriate (AC SIS055)

Design and Production Skills Continuum

- define a need or opportunity according to functional and aesthetic criteria
- consider potential resources in defining design needs and opportunities
- investigate and research materials, components, tools and techniques to produce design solutions (ACTDEP014)

Communicating

- represent and communicate observations, ideas and findings, using formal and informal representations (AC SIS060, AC SIS071)
- Processing and analysing Data
- suggest possible reasons for findings (AC SIS215, AC SIS216)

Researching and Planning

- develop, record and communicate design ideas and decisions using appropriate technical terms

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Lesson / activity outline

This series of lessons enables students understand the needs and threats of Eastern Long Necked Turtles. Students design a product or system to support the survival of the species.

Required resources, equipment and technology

- A device to watch the YouTube video and access other weblinks
- This worksheet (online or printed)

Weblinks utilised

Australian Reptile Park – Eastern Long Necked Turtle

<https://reptilepark.com.au/animals/reptiles/turtles-tortoises/eastern-long-necked-turtle/>

Brewongle EEC YouTube Channel <https://www.youtube.com/user/Brewongle/videos>

TurtleSAT <https://turtlesat.org.au/turtlesat/map.aspx>

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Turtle Trouble

KUTUKULUNG is the Darug word for TURTLE, it is pronounced KU-TUK-U-LUNG. The Eastern Long Neck Turtle is the family totem of the Boorooberongal Clan (the people who lived on the land at Brewongle) and because of this they needed to look after and protect their family totem. (Darug Custodian Aboriginal Corporation)

Unfortunately, these freshwater turtles are in crisis - their numbers are declining and your help is needed!

You need to find out why turtle populations are declining and design a solution to help ensure that these beautiful animals do not disappear altogether.

Activity 1 – What is an Eastern Long Necked Turtle?

Click on the link below. Read about the Kutukulung, and write down 3 facts about its habitat, diet and appearance.

<https://reptilepark.com.au/animals/reptiles/turtles-tortoises/eastern-long-necked-turtle/>

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Activity 2 – Threats**Predators**

Click on the link below to go to the Brewongle EEC YouTube Channel. Find and watch the clips of Brewongle Wildlife Cameras 2, 3 and 4 from 31/2/20 – 19/3/20.

<https://www.youtube.com/user/Brewongle/videos>

Can you find evidence of turtle predators in the bush at Brewongle EEC? What animals did you see that might harm Eastern Long Necked Turtles?

Activity 3 – Threats**Human Impact**

Have a look at the TurtleSAT map of reported Fresh Water Turtle sightings between Richmond and Sackville.

<https://turtlesat.org.au/turtlesat/map.aspx>

Zoom into the map. The Eastern Long Neck Turtle is also known as the Eastern Snake Necked Turtle. It is the bright green dot. If it has a cross through it, it means it is dead.

What do you notice about a lot of the Turtle sightings? Why do you think that this is happening?

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Activity 4 – Design

What can you do to prevent more turtle deaths? (brainstorm)

Using the information that you have gathered, you now need to create a design that will help turtle populations.

How can you help protect turtle populations from human impacts and predators?

How could they cross the road safely? Can you design something to protect them from feral animals?

You can research your design ideas online.

Draw your design ideas and post them on your classroom learning platform (Google Classroom), for your friends and teacher to see.



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