Subject: Science, Mathematics

Suggested Stages: 2 & 3

Suggested Duration: 2 hour session



#### HABITAT RESTORATION: COMMUNICATING, DESIGN AND PRODUCTION, MATHEMATICS

Marine Turtles have been on our planet for around 200 million years. They shared time and space with the dinosaurs and have not changed much since. Six of the seven species of Marine Turtle are found in the Australian waters.

All marine turtle species are experiencing serious threats to their survival. The main threats are pollution and changes to important turtle habitats, especially coral reefs, seagrass beds, mangrove forests and nesting beaches. Other threats include accidental drowning in fishing gear, overharvesting of turtles and eggs, and predation of eggs and hatchlings by foxes, feral pigs, dogs and goannas.

The Taronga Wildlife Hospital at Taronga Zoo Sydney treats an average of 40 marine turtles each year that have been washed up on beaches or found floating, in the ocean unable to dive. Rehabilitating and releasing these animals is a priority of our staff. Once admitted to the Taronga Wildlife Hospital, the turtles are given a full veterinary examination, radiographed, have blood tests and in many cases need to spend weeks in intensive care to ensure their survival. When well enough to clear intensive care, they are moved into rehabilitation pools to prepare for release. This involves eating well, gaining weight and swimming and diving proficiently.



Andrew is one of these turtles who was found as a juvenile and had ingested plastic. Watch Andrew's story and find a solution to one their serious threats.

LEARN MORE ABOUT ANDREW'S STORY BY
CHECKING OUT THE LITTER FREE OCEANS PAGE







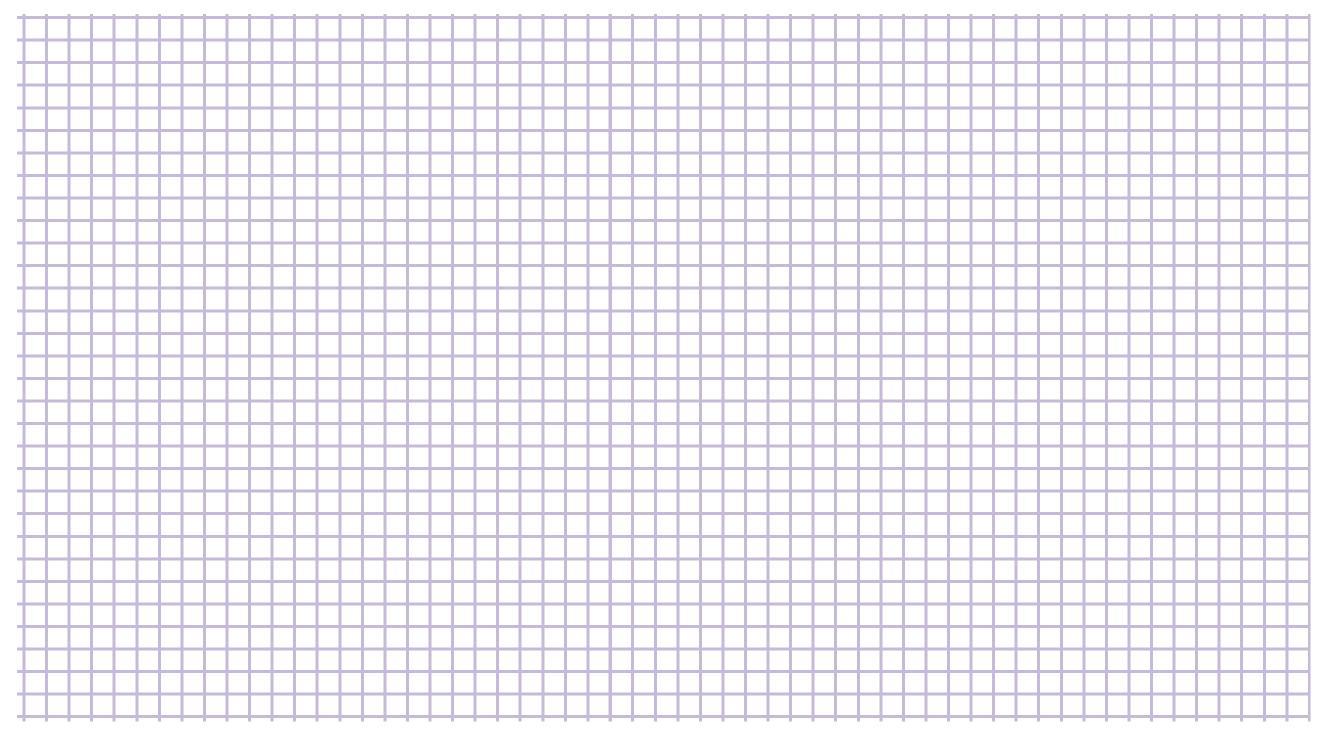
## MATHEMATICAL SKILLS



Survey the schoolyard or your local park and survey the pieces of rubbish that you find. Categorise them into plastic, paper/carboard, aluminium, organic material and other.

#### **COMPLETE THE FOLLOWING:**

Create a graph to represent the data you collected. If you choose a column graph then don't forget to label the X and Y axis!



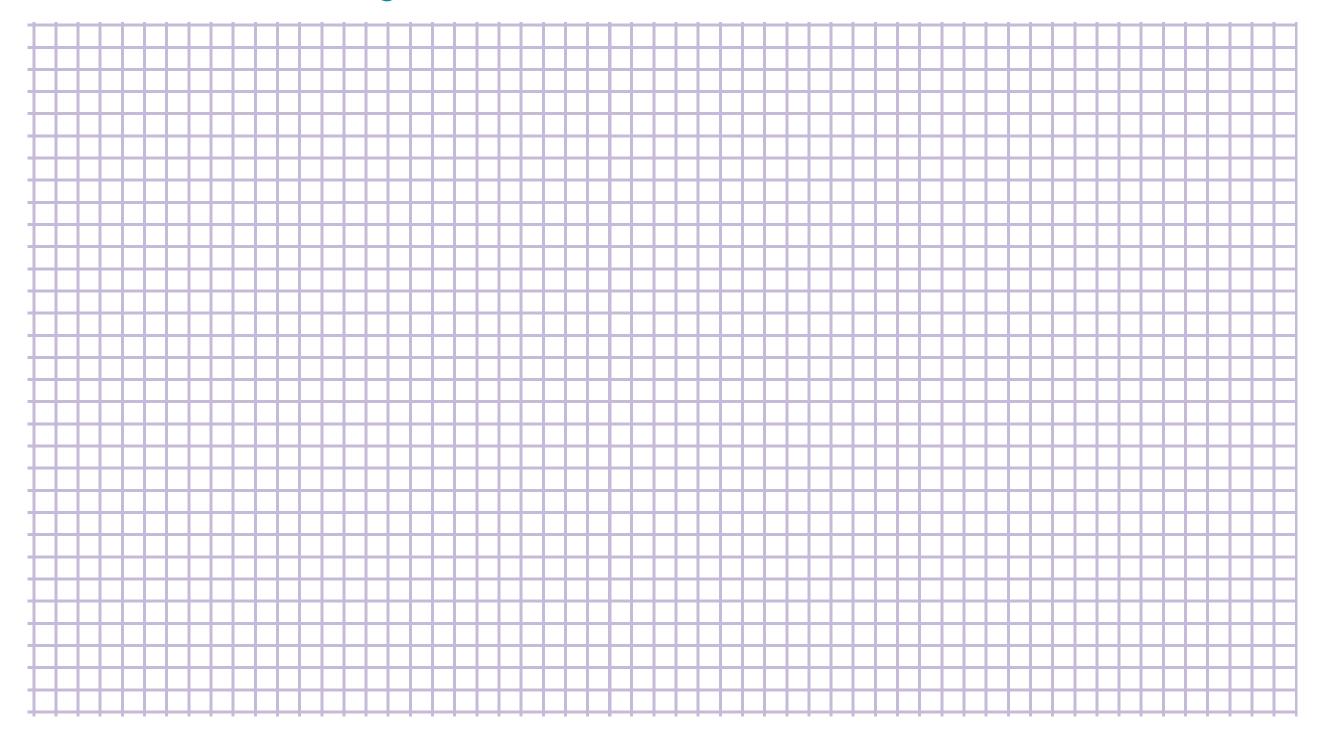
What was the most common type of rubbish you found

What percentage of the trash is plastic?



Separate the plastic into hard and soft plastic and complete the following:

Create a graph to represent the data you collected. If you choose a column graph then don't forget to label the X and Y axis!



What percentage of the plastic is:

- 1) Hard?
- 2) Soft?

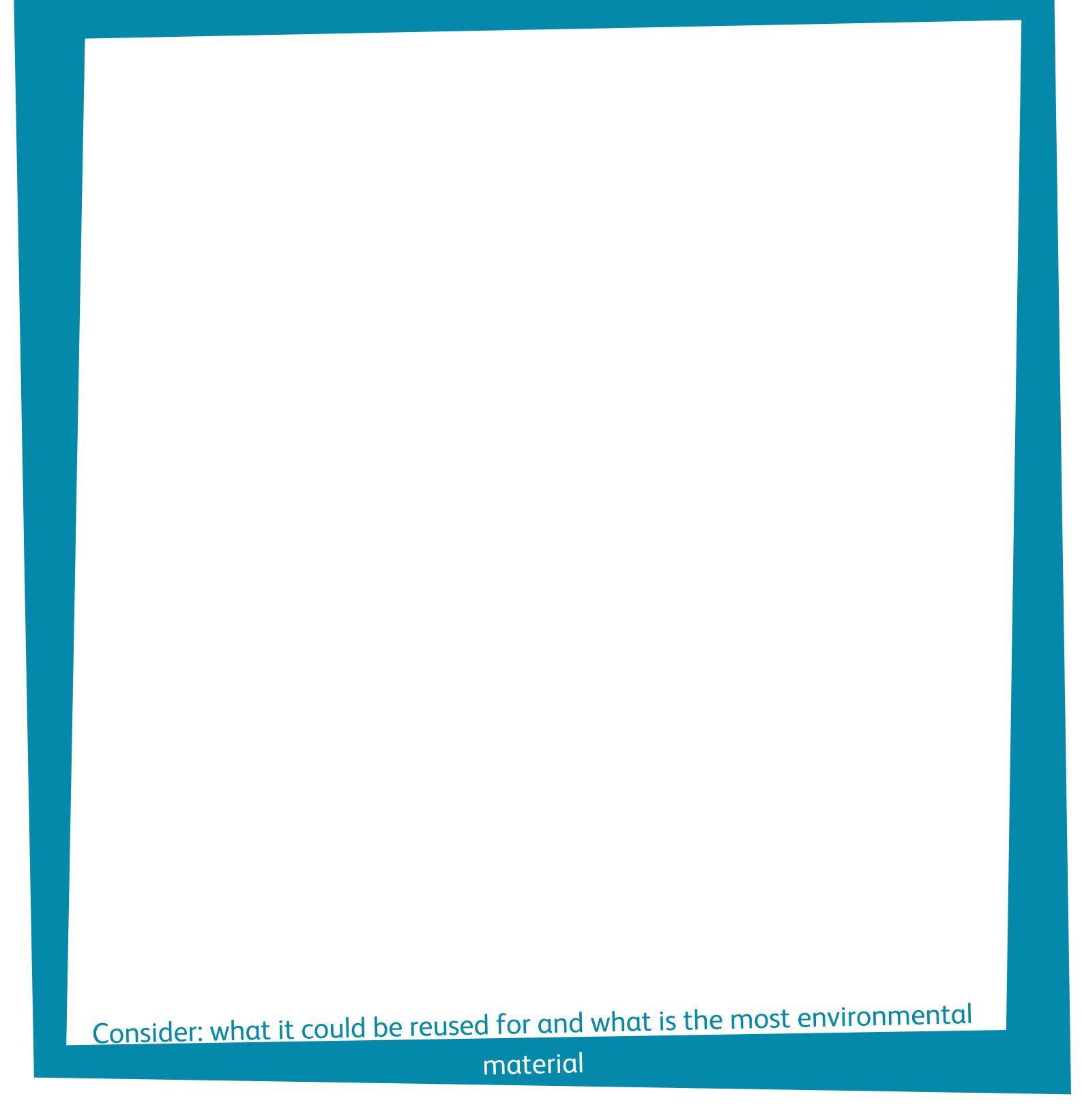
What was the most common form of plastic found?

What is the main source of the plastic?

## SCIENCE SKILLS

Select one of the single use pieces of plastic that you found, think about what is was used for and design a prototype for a reusable option. Draw and label the prototype below.

For example, if you found a jelly cup, you could consider creating a prototype for a silicon version.



## COMMUNICATION SKILLS



#### BEHAVIOUR CHANGE CAMPAIGNS

Behaviour change campaigns aim to inspire people to think about what they can do to help wildlife and their habitats. It is about encouraging people to change a simple behaviour that would really impact wildlife. For example, reducing single use plastic to help solve the problem of pollution in our waterways.

It is important to think about, who your audience will be, how you are going to communicate to them what you want them to do and why is it important to them.

Taronga uses the Connect, Understand and Act model:

visitors/students and the general community with the priority species through emotionally engaging experiences

Promote
Understanding
through innovative
and educational
displays and
experiences.

Act to alleviate the threatening processes that are affecting these species and their habitats

Click here to watch a video and learn more about the Behaviour Change Model

Profound experience

Strong connection

Hunger to understand and learn Facilitated action and/or behaviour change

https://vimeo.com/573321463/f33aa1f51f

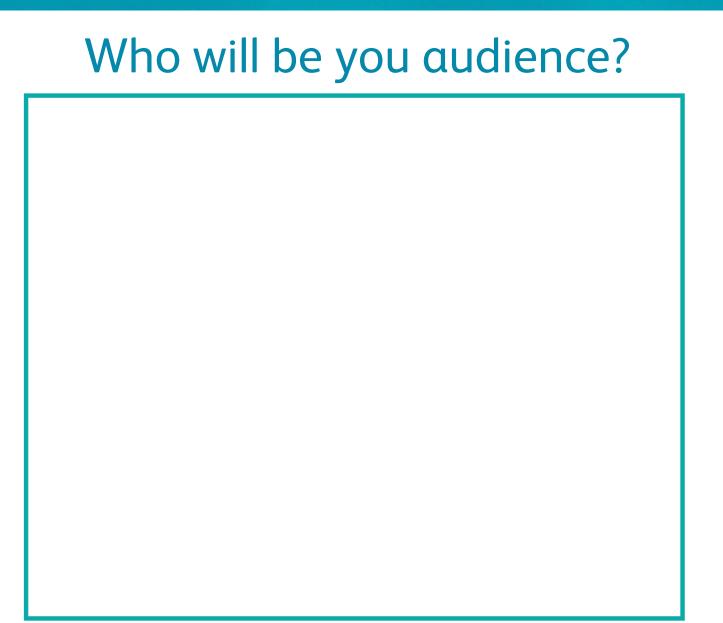
How will you get your audience to <u>connect</u> with the animal you are going to save?

How will you get your audience to understand the ISSUE that they are facing?

What is the behaviour you are asking them to do?

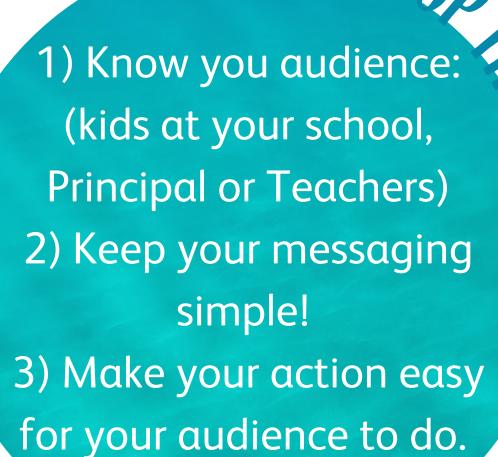


COMMUNICATION SKILLS- BEHAVIOUR CHANGE CAMPAIGN PLANNING



How might you connect with

them?



How will you get them to understand the issue?



What is the action you are asking them to do?

COMMUNICATION SKILLS- BEHAVIOUR CHANGE CAMPAIGN POSTER



Create a poster or a logo and a tag line to represent your behaviour change campaign. Remember to use the top tips to help you and have a look at some of Taronga Zoo's Behaviour Change Campaign logos below! Present your campaign to your class.









