

# Waste and Waterways Lesson Plan

## Plastic in Oceans Poster



years  
9 and 10

### AUSTRALIAN CURRICULUM LINKS:

#### Year 9: Design and Technologies Investigation, Sustainable Design

- Students researched the social and ethical challenges for society associated with modern industrial and commercial manufacture of consumer goods.

#### Year 9: Earth & Space Sciences

- Investigating how human activity affects global systems.

#### Objectives:

##### Students will be able to:

- Recognise the harm that all forms of plastics have on ocean ecosystems and being able to name at least one global hotspot for such pollution
- Research and suggest one method of intervention to minimise / eliminate plastic pollution in this area
- On A3 Paper, present information in a graphic poster format, in a way that is easily comprehensible and engaging for peer viewing

#### POST & PRIOR LEARNING:

Year 8 Visual Arts

Students were engaged in a process of creating an artwork of a landscape with merged perspectives to communicate a viewpoint on sustainability.

#### Resources Required

- Stack of A3 paper (10–15+ recommended)
- Blue Tac / Sticky Tape
- Student laptops
- Projector

### TEACHING AND LEARNING STRATEGIES:

#### 1 Introduction – Class Activity Description / Topic Video Viewing (10 Minutes)

##### Understanding Marine Waste:

Introduce students to the class with a broad overview that details class activities ahead:

- In this class we will learn about pollution in our oceans, focusing on **plastic waste hotspots**
- You will be asked to focus on one specific location where plastic waste in waterways is a major issue, and after research, **suggest one way this local issue could be reduced / illuminated**
- Your findings will then be presented in a **graphic style of your own choosing on A3 paper, to be hung as a poster in a part of the classroom**. There will be time to walk around the room and look at other posters to learn from your peer's work (Gallery Walk)
- Emphasise that the aim of this exercise is not to create a perfect poster, but rather to be a starting point to become familiar with parts of the world's oceans worst affected by plastic pollution, and with ways of addressing this issue.

Play the following YouTube Video, to stimulate thinking about plastic pollution in the world's oceans:

*How We Can Keep Plastics Out of Our Ocean* | National Geographic

<https://www.youtube.com/watch?v=HQTUWK7CM-Y> (1)

## 2 Body – Poster Creation Groupwork (35 Minutes)

1. Divide students into groups of 3–4 providing each group with 1–2 pieces of A3 paper.
2. One could be for draft ideas and another for the final poster.

Instruct students to first pick a location/ aspect of the world's oceans, large or small that has been previously identified as being affected by plastic pollution. This could be a specific location e.g. the coastline of Barcelona,

Or a more general but still specified focus e.g. the deep ocean floor

Useful starting points for research: The following Resources can be displayed on an overhead projector as possible examples to begin researching with:

BBC News – *Mediterranean plastic pollution hotspots highlighted in report*  
<https://www.bbc.com/news/world-48554480> (2)

The Guardian – *Plastic pollution in Atlantic at least 10 times worse than thought*  
<https://www.theguardian.com/environment/2020/aug/18/atlantic-ocean-plastic-more-than-10-times-previous-estimates> (3)

Yale Environment – *Scientists Find Plastic Hotspots in the Deep Ocean*  
<https://e360.yale.edu/digest/scientists-find-plastic-hotspots-in-the-deep-ocean#:~:text=Scientists%20have%20discovered%20microplastic%20hotspots,moving%20tiny%20plastic%20fragments%20around.&text=But%20of%20the%2010%20million,account%20for%20just%201%20percent> (4)

3. Students are to suggest one method of plastic pollution reduction/ elimination, detailing this method into a few key points

**A Basic list to consider for inspiration:**

1. Reduce Your Use of Single-Use Plastics
2. Recycle Properly
3. Participate In (or Organize) a Beach or River Clean-up
4. Support Bans
5. Avoid Products Containing Microbeads
6. Spread the Word
7. Support Organizations Addressing Plastic Pollution (5)

**Each Poster should contain:**

- A title of specific location / aspect of ocean in focus
- A title of chosen plastic reduction / elimination method for implementation in this area of focus

### 3 Conclusion Poster Viewing (15 Minutes)

At the end of 35 minutes of creating time, each student group will be asked to:

1. Pick a space in the room to hang their poster to be viewed by other groups, at whatever point of completion it is in.  
This could be with Blu Tac / sticky tape / alternative adhesives depending on the classroom
2. Members of each group will be asked to coordinate taking turns in standing by their poster to explain / answer any questions about their work, and moving around the room to view other posters
3. The teacher will photograph each poster for sharing via a class portal / email service, to capture outcomes and for students to look at more in depth later if they wish to.

Encourage all students at the end of class, as part of a general practise in sustainability to either

- keep their A3 posters for later review, or
  - Dispose of them in paper recycling
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### REFERENCES

1. National Geographic. *How We Can Keep Plastics Out of Our Ocean* [Internet]. 2016 [cited 2020 October 24]. Available from: <https://www.youtube.com/watch?v=HQTUWK7CM-Y>
2. Mediterranean plastic pollution hotspots highlighted in report [Internet]. BBC News. 2019 [cited 2020 October 24]. Available from: <https://www.bbc.com/news/world-48554480>
3. Harvey F. Plastic pollution in Atlantic at least 10 times worse than thought [Internet]. the Guardian. 2020 [cited 2020 October 24]. Available from: <https://www.theguardian.com/environment/2020/aug/18/atlantic-ocean-plastic-more-than-10-times-previous-estimates>
4. Scientists Find Plastic Hotspots in the Deep Ocean [Internet]. Yale E360. 2020 [cited 2020 October 24]. Available from: <https://e360.yale.edu/digest/scientists-find-plastic-hotspots-in-the-deep-ocean>
5. Hutchinson B. 7 Ways To Reduce Ocean Plastic Pollution Today [Internet]. Oceanic Society. 2020 [cited 2020 October 24]. Available from: <https://www.oceanicsociety.org/blog/1720/7-ways-to-reduce-ocean-plastic-pollution-today>