



**CAWTHRON**  
The power of science®

## **Seaweed 2019**

### #5 Plastics

### Level 3/4 Teacher Information

### Key Message - reduce reuse recycle

**By the end of this lesson the students will be able to-**

1. Discuss the huge problem of plastics in the sea
2. Understand that we can do something about it
3. Know what recycling really is, make plastic fantastic
4. Realise we have options, recycle, burn it etc., there is energy in plastic

#### NZ Curriculum-

#### **Science- Material World** – Chemistry and society

Relate the observed, characteristic chemical and physical properties of a range of different materials to technological uses and natural processes.

#### **Nature of Science-** Participating and contributing –

Explore various aspects of an issue and make decisions about possible actions

Large particles fragment into smaller pieces known as microplastics – technically 5mm in diameter or less. These are now recognised as one of the most prevalent human-made pollutants in marine environments across the world.

In sum, the evidence about the dangers of plastics and microplastics in the marine environment is far from conclusive. There are important gaps in scientists' knowledge that need to be filled, particularly where plastic particles are likely to accumulate in large amounts over long periods and how this potentially affects ecosystems.

We must avoid undue speculation and overstating risks, and instead engage with the actual evidence. Otherwise it will detract from our ability to manage plastic pollution in the most effective way and have a clear sense of the right priorities

<https://www.independent.co.uk/environment/plastic-oceans-pollution-microplastics-evidence-harm-recycling-dumping-waste-a8275416.html>

So humans have to do something to stop plastic pollution. Just a century ago, there was no plastic and no pollution problem. Now it's everywhere — in the ocean, on every coastline, on the sea floor and blowing in the wind to eventually wind up on city streets, parks, trees, fences and farmland.

<http://tiki.oneworld.org/plastic/plastic.html>

Activity

Make bio plastic

<https://agsci.oregonstate.edu/sites/agsci.oregonstate.edu/files/bioenergy/biodegradable-plastic-activity.pdf>