Name

Group

Sheet 3

PURE NATURE?

How nature processes plastics

Everybody has seen it: the picture of marine animals that mistake plastic rubbish with food and thus suffer a tragic death. On beaches and streets one finds plastic bags, food packaging, and cigarette butts that will take decades to decompose. That is, unless they are properly disposed of and converted into reusable plastics by means of recycling processes. Plastic in our oceans and on land is also dangerous for humans: due to friction, the effects on ultraviolet radiation and evaporating plasticizers makes plastic rubbish disintegrate into smaller and smaller parts. The tiny plastic micro-particles are then eaten by animals and by the end of the food chain they land right on our dinner table.

TASK 1: Try to develop a compost system together with your biology teacher. Conduct an experiment in a 1.5 litre bottle and see how quickly paper towels, banana peels, chewing gum, plastic, and other substances decompose with organic waste. To learn more about how to conduct the experiment visit our resources section at www.yre.org.nz and download worksheet #6 'Make Your Own Compost Maker'.

TASK 2: Due to the fact that people want to use plastic shopping bags "once in a while" to bring their groceries home, the material is here to stay. It takes many decades for plastic to biologically decompose.

Think about other alternatives for items made from plastic. What tools and materials do you need to avoid using plastic altogether?

United Nations SDG #14
Life below water

This SDGs aim is to sustainably manage and protect marine and coastal ecosystems from pollution, as well as address the impacts of ocean acidification.

Did you know?

At the 2009 premiere of a movie regarding the topic of plastic, audience volunteers gave blood samples. And traces of plastic were actually found in their blood!