



This session will provide information to the students on the theory behind plastic recycling. We discuss the difference between biodegradable and compostable plastic, the circular economy and mechanical and chemical recycling.

SOLUTIONS FOR PLASTIC WASTE



This video can be played to provide another style of learning for the students. Audio will be required, however there are audio cues available. The video goes for 1 minute.

https://www.youtube.com/watch?v=aTcMPy6L88E&ab_channel=EllenMacArthurFoundation



The best way we can stop plastic pollution is by stopping using plastic.

We start here by providing some common alternatives that students may easily be able to swap into their lives.

Students could be asked if they are already using any of these alternatives? What kind of alternatives do they have? Were they easy to buy?

COMPOSTABLE ALTERNATIVES

BIODEGRADABLE

BREAKS DOWN
NATURALLY

MONTHS - YEARS

COMPOSTABLE

BREAKS DOWN INTO
NON-TOXIC &
NUTRIENT RICH

90-180 DAYS

Compostable vs. Biodegradable Plastic

Biodegradable Plastic: Breaks down naturally by microorganisms like bacteria and fungi into water, carbon dioxide, and biomass. Time to decompose varies from months to years.

Compostable Plastic: A type of biodegradable plastic that breaks down into non-toxic, nutrient-rich compost in a composting environment, typically within 90-180 days.

Key Difference:

All compostable plastics are biodegradable, but not all biodegradable plastics are compostable. Compostable plastics require specific conditions to break down and leave no harmful residues.

CIRCULAR ECONOMY



This video can be played to provide another style of learning for the students. Audio will be required, however there are audio cues available. The video goes for 1 minute and 30 seconds.

https://www.youtube.com/watch?v=aqeulFxqT1Y&ab_channel=EllenMacArthurFoundation

CIRCULAR ECONOMY



In a circular economy, products and materials remain in use for as long as possible through processes such as maintenance, reuse, refurbishment, remanufacturing, recycling, and composting. When applied to plastics, the circular economy focuses on:

- Creating durable and recyclable products in the first place.
- Collecting used plastics to make new products, reducing waste.
- Closing the loop by keeping any plastic that is ever produced by recycling it.
- Reducing the amount of plastic waste and pollution.
- Overall, it's about keeping plastics in the system and reducing environmental impact.



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IMPORTANCE OF WASTE DISPOSAL



HELPS TO KEEP THE
ENVIRONMENT
CLEAN

HELPS THE
COMMUNITY STAY
HEALTHY



There are lots of easy things to do that will help keep the environment clean too. One of these is waste disposal.

By putting our waste in the correct bins, we can keep the environment clean, and help keep the community healthy.

INNOVATIVE SOLUTIONS

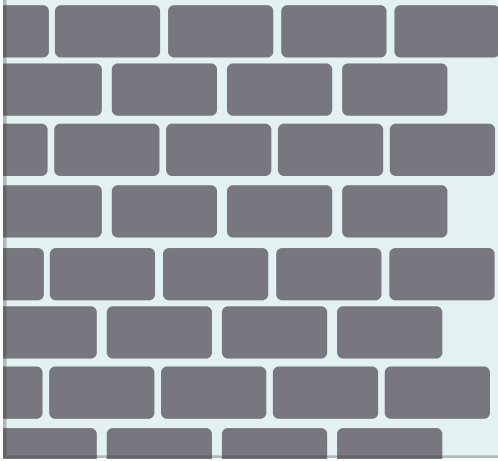


There are many innovative solutions that scientists and engineers are coming up with to help recycle.

All the items in this slide are able to be created with recycled plastics.

INNOVATIVE SOLUTIONS

BUILDING SUPPLIES: E.G.
BRICKS AND PAVERS



MAKING
FURNITURE



BUILDING ROADS

On a larger scale, plastic has been used in the furniture and building industry.

The exciting part is, that recycling technology is quickly advancing, so soon we will hopefully be able to provide recycled products for most things that we need plastic for!

DISCUSSION POINT

**WHAT ARE SOME ITEMS THAT YOU
COMMONLY RECYCLE?**

Students can discuss items that can commonly be recycled

What items are recycled around the school?

PRACTICAL

**COMPLETE THE WORKSHEET ABOUT
RECYCLING AND ALTERNATIVES**

Students can fill in the worksheet provided in the lesson pack