

Rethink Plastics!

A Reflection of our Lives



My name is Kashvi Verma!

- My friends call me Lemon.
- Currently 16.
- Year 12.
- Scuba Diving / Cycling / Reading Comics.

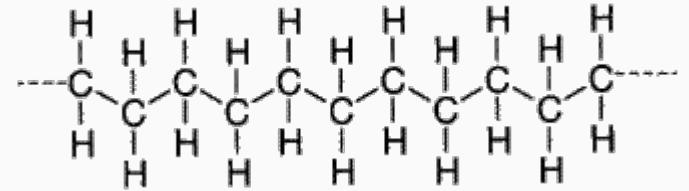
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What are Plastics?

Plastics are long chains of Hydrogen and Carbon atoms.

- One section = monomer.
- Multiple sections = polymer.
- Polymer for plastic is mostly made of Hydrogen and Carbon.
- Can include Oxygen, Nitrogen, and sulfur.
- Plastics manufactured through fractional distillation and polymerization.
- Plastics are everywhere.



**IF PLASTIC IS MADE FROM OIL
AND OIL IS MADE FROM DINOSAURS**



**THEN PLASTIC DINOSAURS
ARE MADE OUT OF REAL ONES**

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Plastic is manufactured from crude oil, hence the use of fractional distillation.

Types of Recyclable plastics

Polystyrene (PS) – Used to make a wide variety of consumer products such as plastic cutlery and containers.

Polypropylene (PP) – Used to make lunch boxes and ice-cream containers.

Low-density Polyethylene (LDPE) –
Used to make garbage bags.

Polyvinyl chloride (PVC) – Used to make squeeze bottles.

High-density polyethylene (HDPE) – Used to make Shampoo containers or milk bottles.

Polyethylene terephthalate (PET) – Used to make fruit juice and soft drink bottles.

Fun Fact

The currency of plastics are called Pellets.

What is the issue with plastics?

Plastic can harm the economy, the environment and the people in many ways.

Environmental	Social	Economic
Plastic tends to end up in the oceans and leads to the loss of marine life.	This could result in mass unemployment in the fishing sector and could cause adverse effects on the public such as malnutrition.	Loss of marine life means loss of fishermen livelihood. The loss of livelihood results in lower economic development and unemployment.
Plastic pollution has caused changes in the carbon and nutrient cycles.	Loss of fertile land and crops, leading to loss of livelihood of farmers and greater food insecurity.	The potential food insecurity will lead to an increase in prices of foods and lead to market failure.

Plastic is not Biodegradable

This is the biggest, most concerning, problem with plastics.



**HOW TO PREVENT
PLASTIC POLLUTION?**

Plastic Recycling as a solution.

Plastic recycling is

The process of converting used or waste plastic into useful materials.

The goal is to reduce the high rates of plastic pollution and the amount of new or unused plastic manufacturing material.



The 4 types of plastic recycling

- **Primary recycling**

Used plastics are recycled back into their original shape and form.

Water Bottle → Water Bottle

- **Secondary recycling**

Used plastics are turned into other goods.

Water Bottle → Fibres (used in clothes)

- **Tertiary recycling**

Waste plastics are used to make chemicals and fuels to produce other materials or plastics

PET → Chemicals → PET
Raw materials

- **Quaternary recycling**

Energy is recovered from the used plastic through incineration (burning).

Plastic → Energy

Activity!



Quaternary Recycling



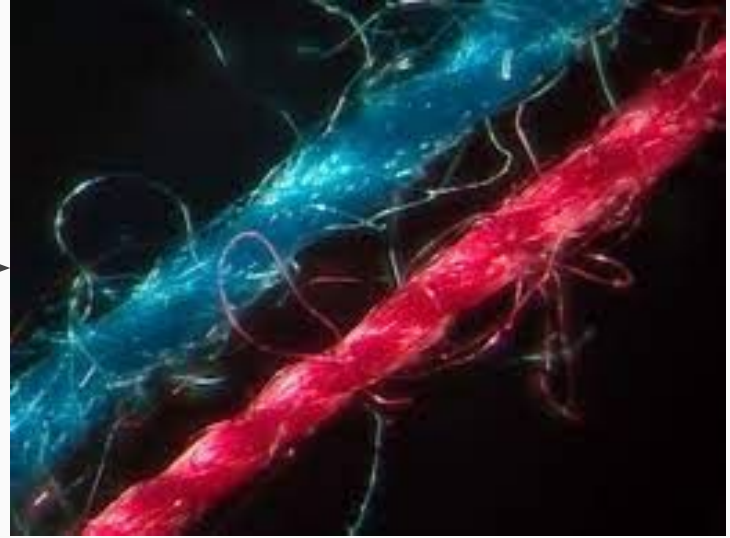
Primary Recycling



Raw Materials



Tertiary Recycling



Secondary Recycling

Why our current system does not work.

The efforts of the
world are just not
in sync.



Plastic Bag

disposables



ceramic plate



crate



Plastic Bag



crate



Plastic Bag



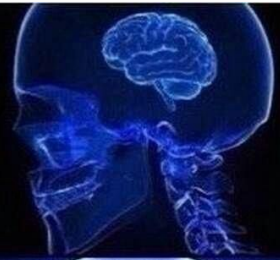
crate

How do we improve it?

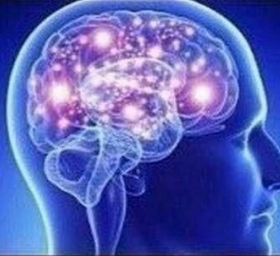
We sync our efforts.

- Create a Plastic Recycling System that will work.
- Re-education.

Single use plastic water bottles



Using single use plastic water bottles more than once



Using a Nalgene plastic water bottle for life



Using a metal water bottle for life



Final point

The only thing that is permanent
is change, so why not use it?

**Every single piece of plastic
ever made still exists.**



Thanks!

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