



Ocean of Plastic

- This resource teaches the importance of keeping water clean, (including rivers, lakes and ocean habitats) and the how the 5 'Rs' (refuse, reduce, reuse, recycle and rot) can help keep waste out of these habitats.



Ocean of Plastic





Ocean of Plastic

How does plastic get in the ocean?

- Wastewater, wind, rain and floods all carry plastic left on the ground into our oceans and lakes.
- Single-use plastic (bags, straws, wrappers) are all very lightweight and can be easily carried in the wind to the coast or to a river before reaching the ocean or sea



Ocean of Plastic

COMMONLY FOUND PLASTICS

- Cigarette Butts
- Bottle Caps
- Straws
- Cups & Plates
- Single Use Bags
- Food Wrappers
- Beverage Bottles

PLASTICS IN THE OCEAN

- ENTANGLEMENT
- MICROPLASTICS
- BOATS/NETS
- INGESTION

RAIN & WINDS

LITTERING

STREAMS & STORM DRAINS

<https://marinedebris.noaa.gov/>



Ocean of Plastic

The problem with plastic?

- Plastic comes in many forms: your toothbrush, lunch container, the food packaging at the grocery store.
- Plastic doesn't decompose back into nature (like a piece of paper or an apple core) and stays in the ocean forever
- Discarded fishing nets and other plastic can harm animals as they may think it's food.



Ocean of Plastic





Ocean of Plastic

A Water Attitude Activity Centre

- Some creatures like sea turtles mistake floating plastic bags as jellyfish, so they eat the plastic bags and then starve, because they have no nutrition but their stomachs are full of plastic.
- Other animals can simply be caught in plastic netting or plastic rings, which can impact their growth or even cause them to drown.



Ocean of Plastic

A Water Attitude Activity Centre

Has anyone heard about the Great Pacific Garbage Patch in the ocean?

- It is a collection of marine debris (ocean garbage) that collects together because of ocean currents. There are a few different garbage patches, but the Great Pacific garbage patch is the largest (there are five offshore plastic accumulation zones) and it occurs in the North Eastern Pacific Ocean. It is a collection of plastic and floating trash that is halfway between Hawaii and California.



Ocean of Plastic

A Water Attitude Activity Centre

- Because of ocean currents (and wind) plastic get concentrated in areas where the water swirls around called “gyres” (*say J-I-ers*). Once plastic entre the gyre, they are trapped and are unlikely to leave until they degrade (break down) into smaller pieces under the effects of the sun, waves, or because they are eaten by marine life.



Ocean of Plastic

A Water Attitude Activity Centre

- As more plastics are discarded and get into the ocean, the concentration (amount in this area) will only continue to increase. The size of the Great Pacific Garbage Patch is the size of all of Ontario, Saskatchewan, Nova Scotia, New Brunswick and PEI combined!

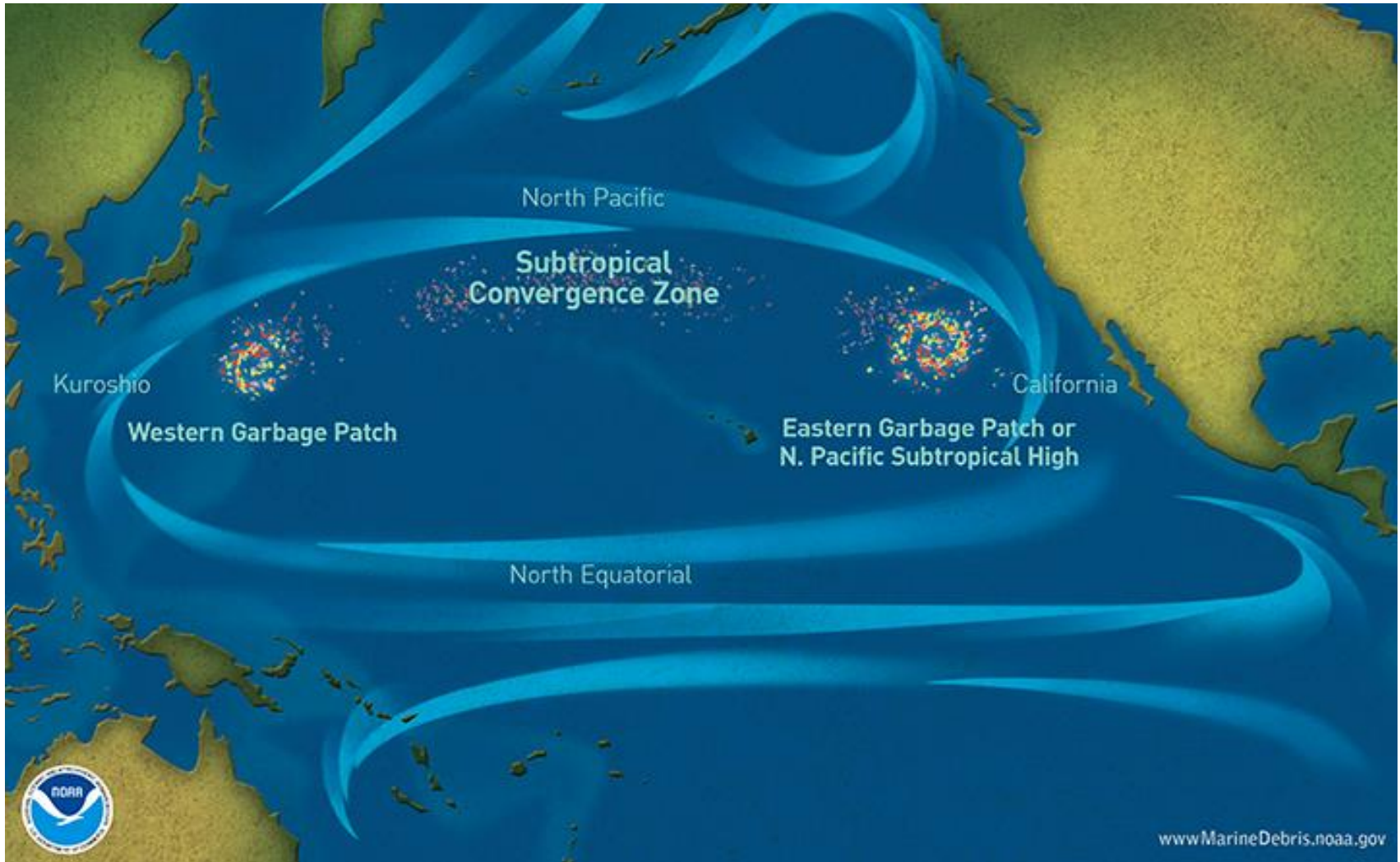
What kind of garbage is in an ocean Garbage Patch?

- A lot of plastic, which floats really well and doesn't break down easily. Some of the plastic garbage is very large abandoned fishing nets. Others are tiny little plastic pellets (micro-pellets) used in cosmetics or cleaners. Since plastics started to be used in the 1950s (around the time your grand-parents were born), one-quarter (25%) has been recycled or burned while three-quarters (75%) remains in the oceans or on land.



Ocean of Plastic

A Water Attitude Activity Centre





Ocean of Plastic

**What are some things
we can do protect the
oceans from plastic?**



Ocean of Plastic

A Water Attitude Activity Centre

Implementing the 5 Rs is a great way to protect our waterways.

Refuse

- Reduce
- Reuse (and Repair and Repurpose)
- Recycle
- Rot (compost)





Ocean of Plastic

A Water Attitude Activity Centre

What are some examples of the 5Rs?

- **Refuse** (to use a straw at a restaurant, take a plastic bag at a store, accept a free gift that you don't want); **Reduce** (choose items with less packaging), **Reuse** (mend clothing/repair broken items/ repurpose and item, like using old calendars or artwork for wrapping paper); **Recycle** (check for the recycling symbol and make sure that it goes in the blue bin); **Rot** (putting organic matter into a compost or green bin).

Everything else that doesn't fit within the 5Rs is garbage and goes to a landfill (hopefully if it is disposed of properly).

There are always spring clean-ups because we DON'T dispose of things properly.



Ocean of Plastic

A Water Attitude Activity Centre

What can you do at home and school for the 5 Rs?

- Say no to disposable (single-use) items – like plastic straws, plastic bags, bottles (bring your own water bottle) or plastic cutlery!
- Take in your own bags to carry purchases as opposed to taking a plastic bag.
- Say no to free things and bargains that you don't really want (e.g., a McDonalds toy).
- Buy products with less packaging.
- Donate or sell things that you are not using. You can maybe make some pocket money, or free up space in your room. Plus, whoever receives this item from you will be reusing it instead of buying new products.



Ocean of Plastic

A Water Attitude Activity Centre

- Pack your lunches in reusable food containers. It's estimated that a student makes 30kg (66 lbs) of waste each year if they pack a disposable lunch each day. That's the weight of a third grader!
- If things break, get them repaired.
- Try upcycling – this is creative reusing – make something unwanted into a new material or item.
- Participate in your school spring clean-up! This keeps garbage away from animals and water environments.
- If you need to recycle or throw something away, make sure that it won't entangle an animal – e.g. cut plastic six pack rings or netting.