

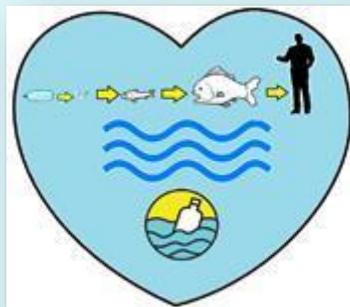
«PASSI NEL FUTURO»

Scuola secondaria di I grado

I.C.S. «Luigi Capuana»

Palermo

2^AB



L'Ambiente in tutte le lingue.

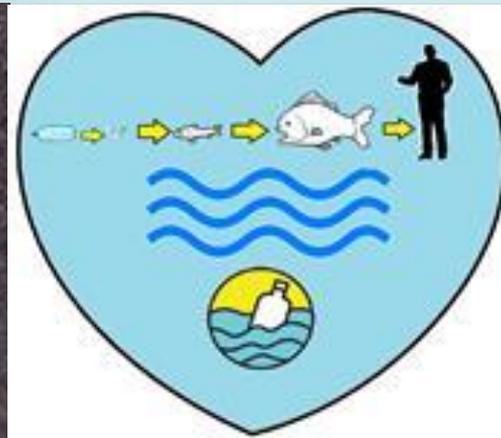
Teachers: Agata Schiera (scienze)

Giuseppina Savalla (inglese)



PLASTICS BREAKDOWN

What's the problem?



PLASTIC OCEAN

How plastics reaches the ocean?

A RAINFALL

B WIND

C DUMPING

D SEWAGE

8 Million
tonnes per year

YOU ARE WHAT YOU EAT!

>3300 pieces
microplastic in a swimming pool

Action now!

BRING your OWN BOTTLE
BRING your OWN BAG
REUSE & RECYCLE
NO FACIAL SCRUBBER
BEACH CLEANUP

Plastic Breakdown

Microplastic

1000 Years
to degrade



We use tons of plastic.

It's in everithings from packaging to toys, to the dashboard in your car.

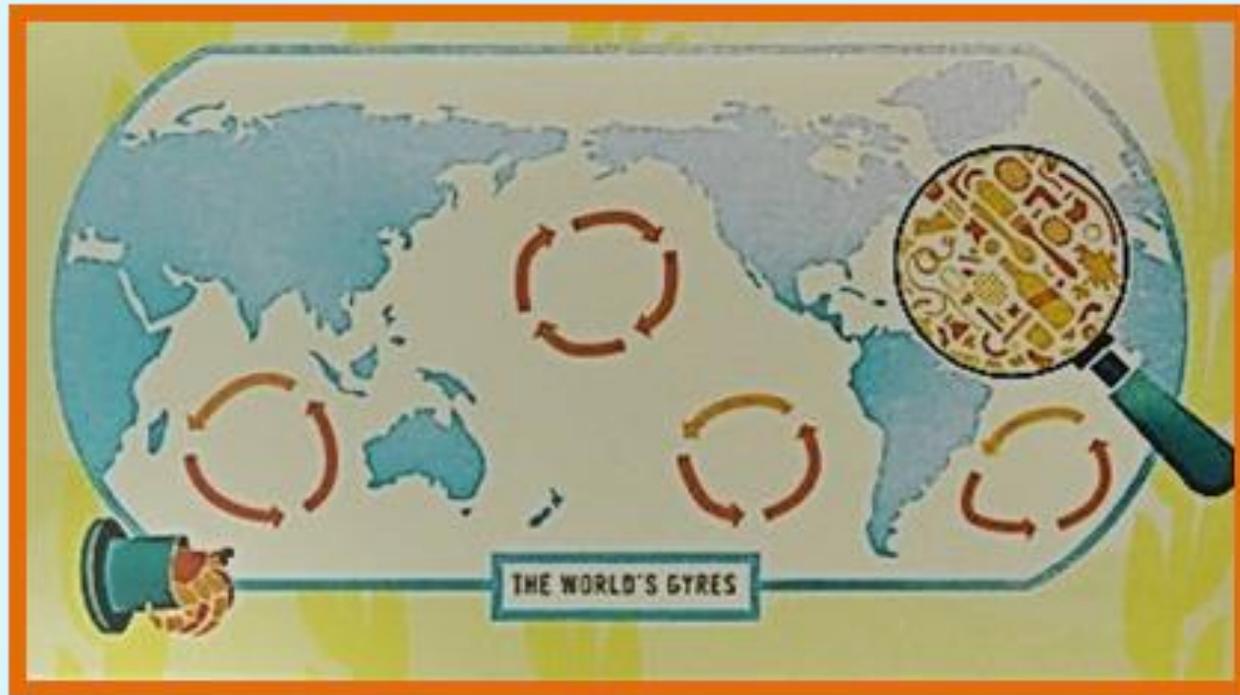
Massive amounts of it end in the ocean.

It entanagles and kills sea life.

It certainly doesn't biodegrade



HOW MUCH PLASTIC ENDS UP IN THE OCEAN?



**Some 8 million tons of plastic trash !!!!
.....in this way the plastic islands are created!**



Currents carry the plastic everywhere!

It is said that..

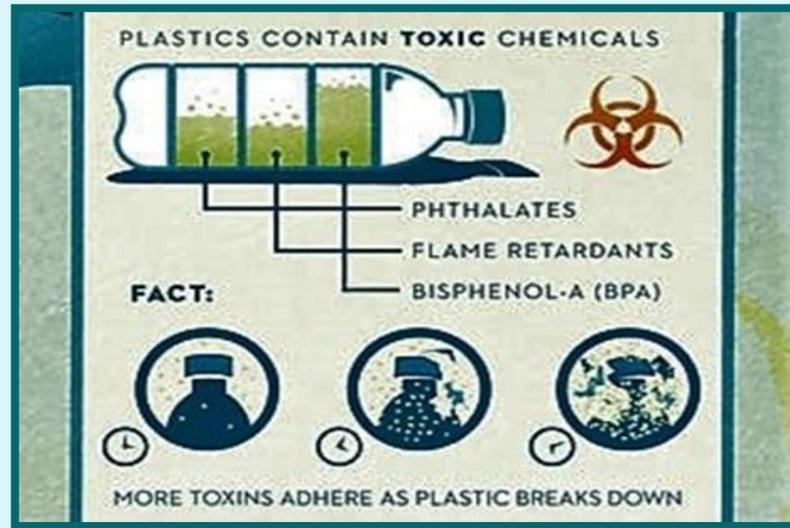
Rubber ducks lost a from a shipping container in the North Pacific were found near Scotland!



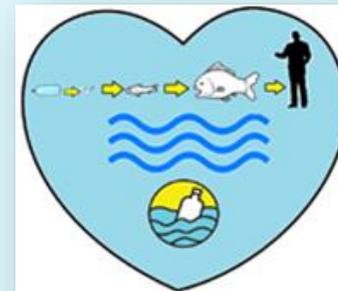
In the North Atlantic Tsunami debris from Japan arrived in North America, after crossing the largest ocean on earth in just 10 months.



PLASTIC IS MADE OF TOXINES!



FLOATING TOXIC MICROPLASTICS are often ingested by marine life, which in turn is **CONSUMED BY US!**



...PHTHALATES INTO...



WHAT CAN WE DO TO HELP?

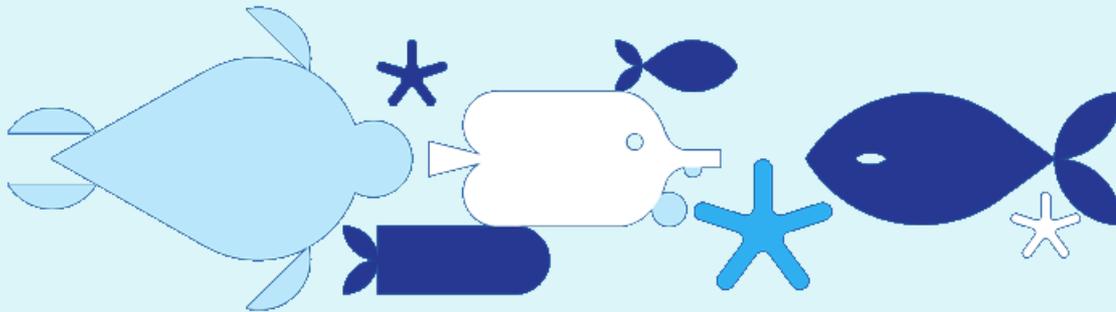
Use less plastic!

- Plastic bags > reusable bags
- Utensils > use no plastic
- Straws > no need
- To go cups > reusable mugs & cups
- Bottled water > reusable water bottle
- Packaging > buy items with minimal packaging
- Clothing > buy natural materials
- Electronics > repair or recycle



THE OUR EXPERIMENTS

1. Let's recreate the "Plastic Island"
2. Let's make the BioPlastic





LET'S MAKE THE BIOPLASTIC!

BIOPLASTICS

originate from a
renewable resource

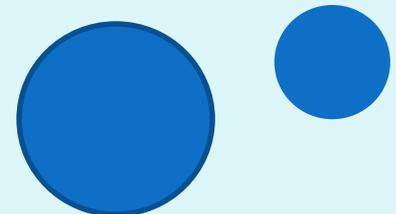
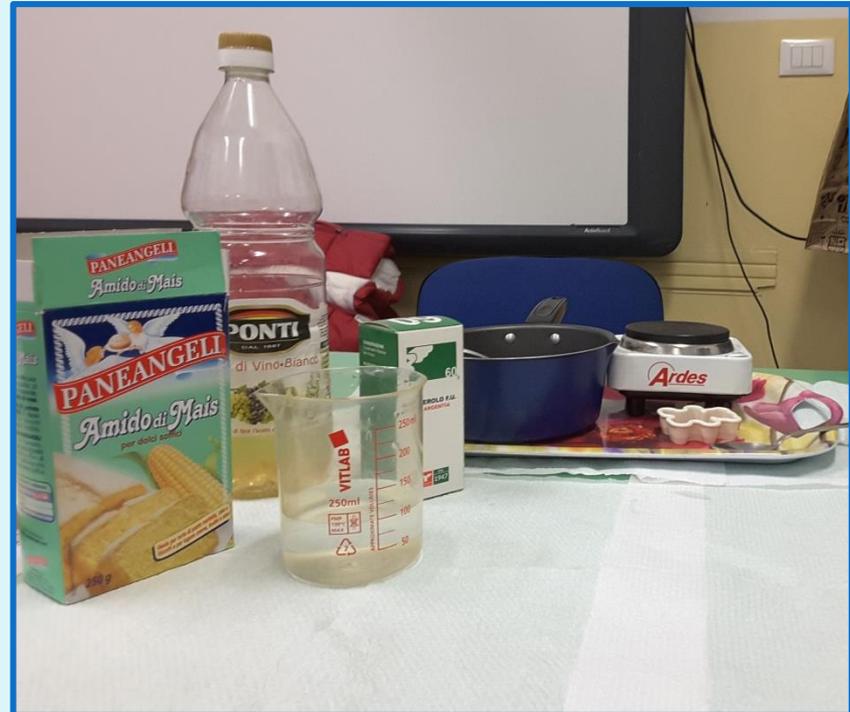
are
biodegradable

are renewable and
biodegradable

SPI: The Plastics Industry Trade Association

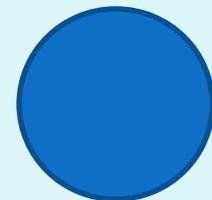
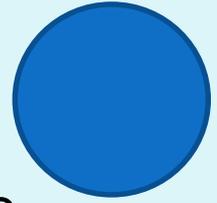
MATERIALS

- A little pot
- A cooker
- A spoon
- A spatula
- A flat plate
- Corn starch powder
- Water
- Vinegar
- Glycerine



EXECUTION

- Pour 100 ml of water in a little pot and heat up on the cooker
- When the water is warm, remove the pot from the cooker and add a spoon of corn starch powder, a spoon of vinegar and two little spoon of glycerine
- Put the pot on the cooker again, set to the minimum and mix the blend steadily
- At a certain point, you'll see the blend that turns into jelly
- Continue to mix faster for a few seconds until the jelly becomes elastic
- Using the spatula, spread the product on a flat plate, in order to obtain a foil
- Put it to dry
- Observe the final result after 48 hours



GOOD VISION!



AFTER TWO DAYS



The foil of bioplastic

