

Lesson 3 - Effects of Plastics on Humans

Essential Question: What are the harmful effects of plastics on other living organisms?

100 μm

Poll



How often does the average human consume plastic?

- every meal
- every day
- few times per week
- once per week
- once per month

THE FACTS



10 MILLION

TONS OF PLASTIC ARE DUMPED IN OUR OCEANS ANNUALLY. THAT'S EQUAL TO MORE THAN A GARBAGE TRUCK LOAD EVERY MINUTE!

50%

OF ALL PLASTIC PRODUCED (380 MILLION TONS PER YEAR) IS FOR SINGLE-USE PURPOSES - USED FOR JUST MINUTES AND THEN THROWN AWAY



100%

OF MUSSELS TESTED HAVE CONTAINED MICROPLASTICS



1 MILLION

MARINE ANIMALS ARE KILLED BY PLASTIC POLLUTION EVERY YEAR



LESS THAN

9%

OF ALL PLASTIC GETS RECYCLED

HUMANS EAT OVER

40 POUNDS

OF PLASTIC IN THEIR LIFETIME

"THERE WILL BE MORE PLASTIC IN OUR OCEANS THAN FISH BY 2050."

The Ellen MacArthur Foundation



<https://plasticoceans.org/donate>

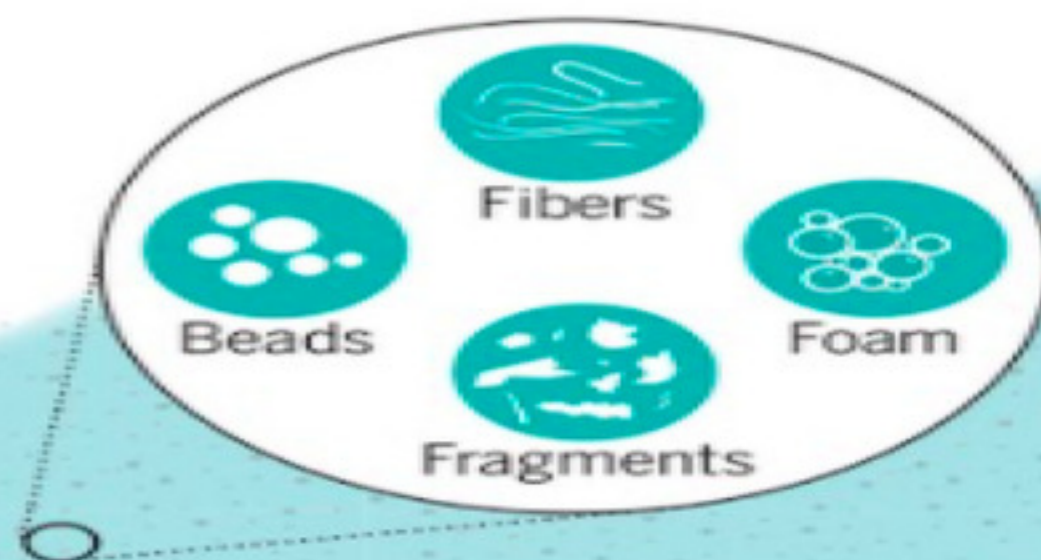
What are the effects of microplastics in humans?

Microplastics (plastic particles <5 mm) can come from the breakdown of plastic objects, car tires, and clothing, but also from their use in cosmetics and other applications. They have diverse shapes and encompass a suite of chemical and biological constituents. Microplastics can enter the human body through ingestion and inhalation where they may be taken up in various organs and might affect health, for example, by damaging cells or inducing inflammatory and immune reactions.

Where do microplastics come from?



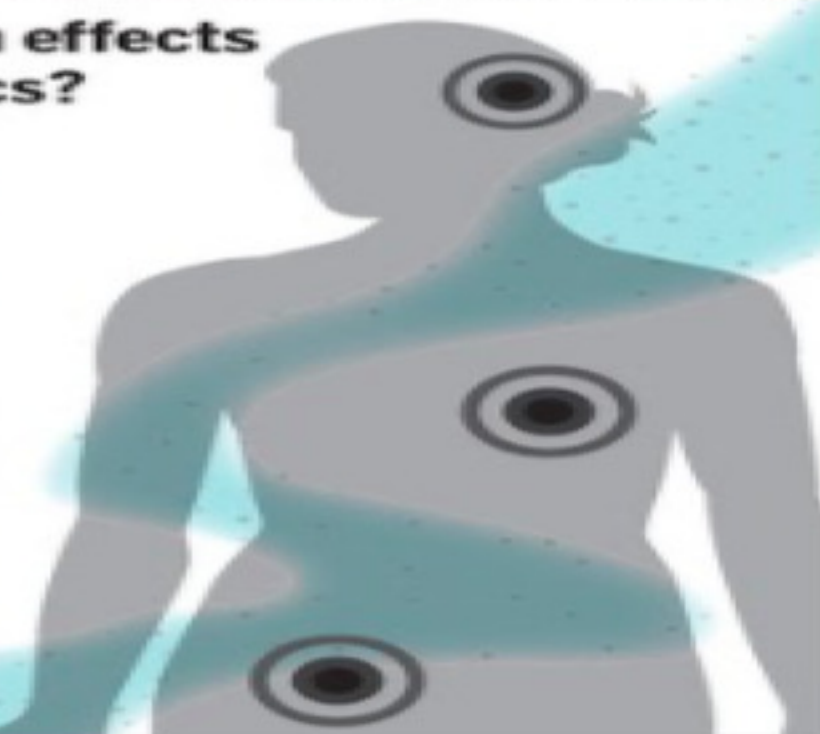
Microplastics are diverse in shape and composition.

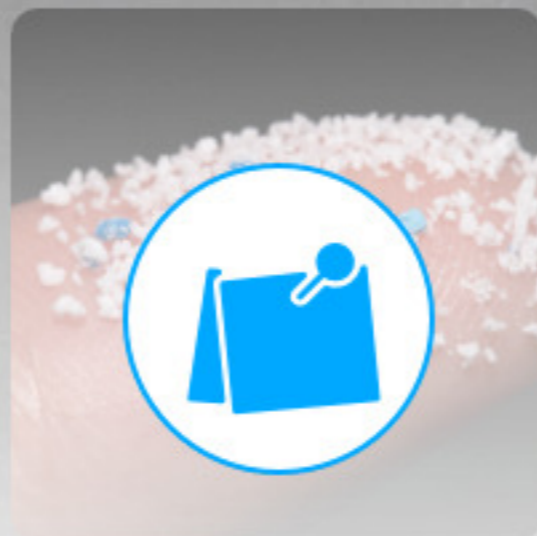


Microplastics can enter the body.



Possible health effects of microplastics?





Collaborate Board

What stood out to you the most about the images you just saw?

Effects of Plastic On Humans
What stood out to you most about the images you just saw?

PLASTIC POLLUTION



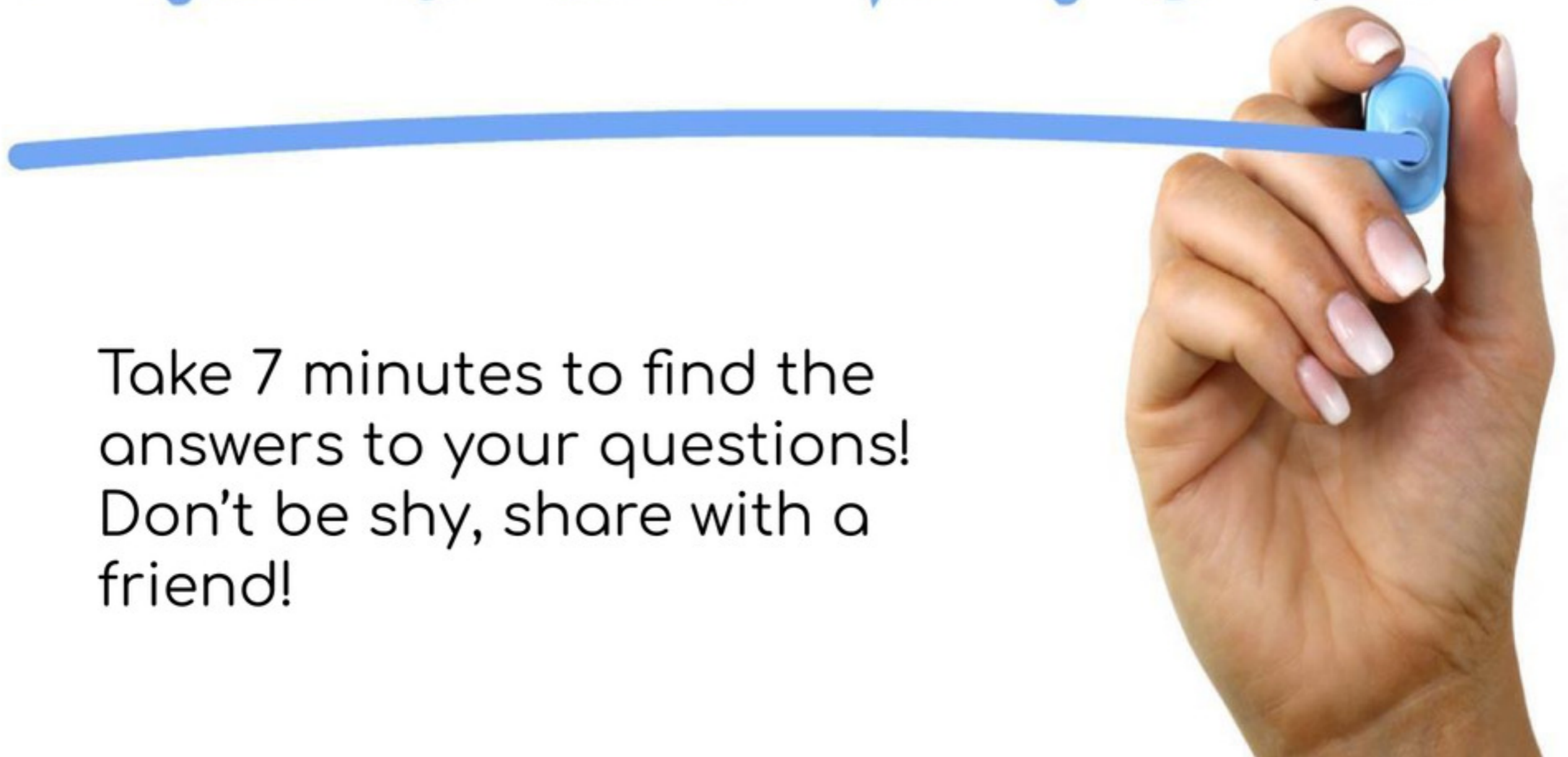
Video

Plastic Pollution: How Humans are Turning the World into Plastic

Open Ended Question

After watching the video, what are three questions that you have?

RESEARCH



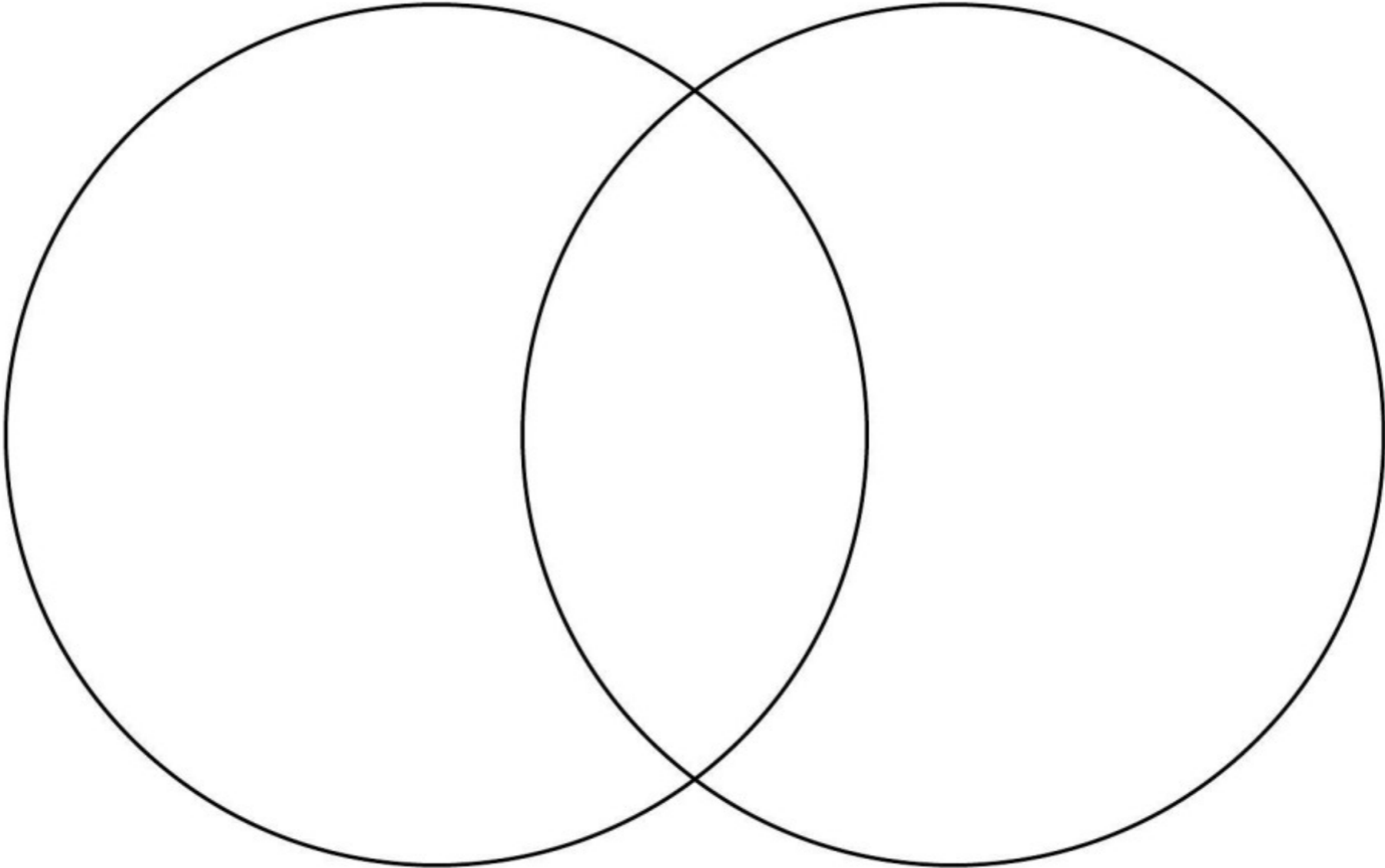
Take 7 minutes to find the answers to your questions! Don't be shy, share with a friend!

Open Ended Question

Share one question that you researched and its answer with the group.
We want to know!

Draw It

Use the venn diagram to illustrate the differences and commonalities that are shared between marine life and humans when it comes to plastic pollution



Time to calculate your
impact on the plastic
problem!

