

PLASTIC

Changemakers

PLASTIC - THE STORY SO FAR
MODULE 1



LESSON 1: THE HISTORY OF PLASTIC

Why it was created and its benefits



What do you already know about plastic?

necessary | convenient | unnecessary | single-use | synthetic | overuse | overproduction | disposal

Where would you place yourself on this scale?

Plastic is destroying our planet!

Plastic can be useful because...

Plastic is fantastic!



Use the posters in your room to place yourself in a position that shows how you feel about plastic.
Be prepared to justify or explain your reasons!



It's time to go on a plastic hunt!



It's time to go on a plastic hunt!



Find an object in the classroom that's made out of plastic.

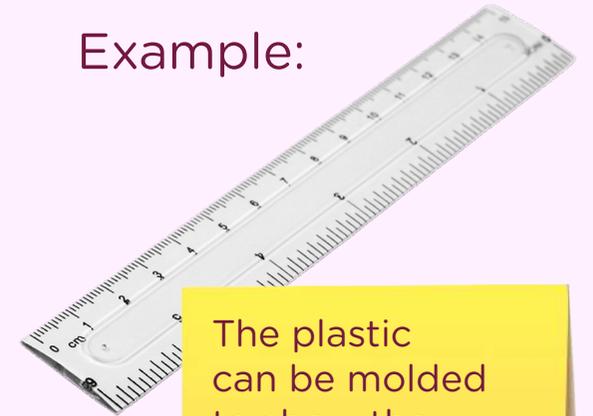


Think about **why** you think it's made of plastic and **write** this on the post it note.



Attach the post it note to the item.

Example:



The plastic can be molded to show the measurement marks

Could it be made from any other material?

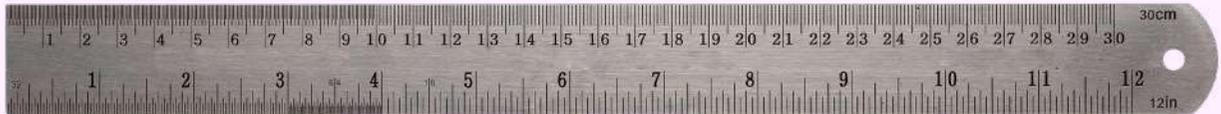


The plastic
can be molded
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Could it be made from any other material?



The plastic can be molded to show the measurement marks

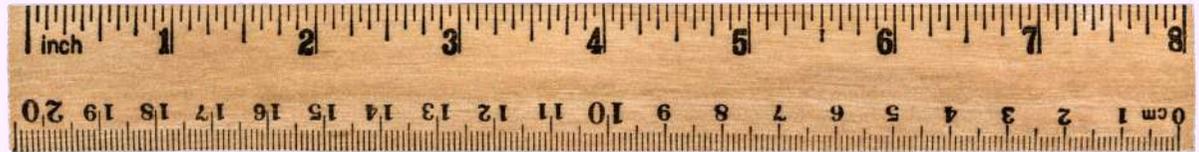


Why is it made from this material?

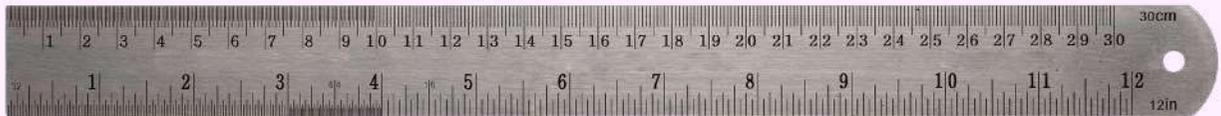
Can see through to marks on paper underneath.



The plastic can be molded to show the measurement marks



Longer lasting



Can be used for cutting (a blade won't damage a metal ruler).



Choose a question to discuss with your partner



What do you think humans did before they had plastic?



Why was plastic invented?



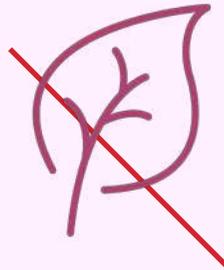
When was plastic invented?



How has plastic helped us?



Plastic is a word that originally meant 'pliable and easily shaped.'



The first fully synthetic plastic was made in 1907 and had nothing natural in it at all.



The first synthetic polymer (plastic) was invented in 1869 by John Wesley Hyatt. It was made to be a replacement for ivory.

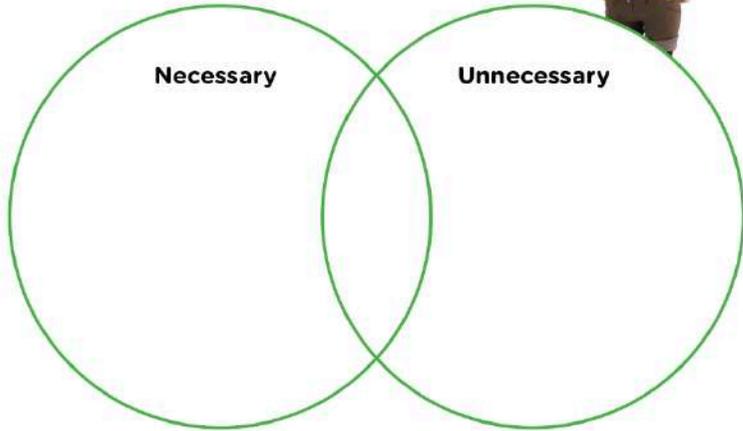
Module 1: Lesson 1

Name: _____

Date: _____

UNDERSTANDING PLASTIC

Sort the items into the appropriate place on the sheet.
Explain to your partner **why** you put them there.



Necessary	
Something that is absolutely needed and hard to live without.	
<i>EG: This sandwich is necessary, I need food to keep myself alive.</i>	

Unnecessary	
Something that is not needed and you can live without.	
<i>EG: I don't need a plastic bag, it's unnecessary, I brought a fabric bag with me.</i>	

INDEPENDENT TASK: CATEGORISE PLASTIC PRODUCTS

Cut out the item



Cut out the pictures of plastic items



Think about where you would sort them in the Venn Diagram



Stick them into place

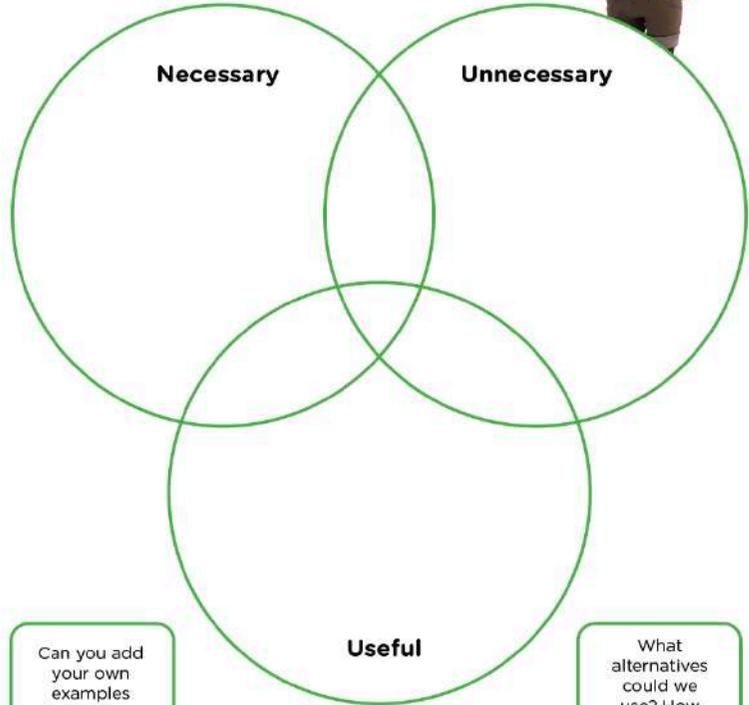
Module 1: Lesson 1

Name: _____

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UNDERSTANDING PLASTIC

Sort the items into the appropriate place on the sheet.
Explain to your partner why you put them there.



Can you add your own examples to the Venn diagram?

What alternatives could we use? How might they work?

INDEPENDENT TASK: CATEGORISE PLASTIC PRODUCTS

Cut out the item



Cut out the pictures of plastic items



Think about where you would sort them in the Venn Diagram



Stick them into place



Add your own ideas

Let's revisit the scale. Are you in the same place?

Plastic is destroying our planet!

Plastic can be useful because...

Plastic is fantastic!



Did anything change your mind?

Lesson 2: The Journey of Plastic

From human use to waterways and landfill







Weather Play

Using the resources you have been given, try to replicate the effect of different types of weather on plastic that has fallen into the street.

Can you be the wind? Or the rain?

What happens to the different plastic items?





Why do the objects go in some directions and not others?

What happens if the wind or rain is stronger or lighter?





Time for some role play...



JOURNEY 1

		
She runs past a bin. It's overflowing. She puts the empty bottle with the rubbish.	The bottle gathers alongside lots of other rubbish in the river.	Amy goes into a shop. She buys a bottle of water.
		
She goes for a run and drinks the whole bottle.	It's blown even further, to the edge of a nearby river.	The wind blows the bottle away from the other rubbish to the side of the road.



Task 1: Cut out the journey cards and place the journey in the correct order.

JOURNEY 2

		
He puts it in the bin at home.	The crisp packet ends up in a landfill site, alongside millions of tonnes of rubbish.	He puts the empty packet in his bag and takes it home.
		
He eats the crisps but can't see a bin in the hospital corridor.	The rubbish truck collects the rubbish on Monday morning and takes it away.	Adil visits his aunt in the hospital. He buys some crisps from a vending machine.



Task 2: In your pair/group, act out the journey of the plastic.

The correct order...

JOURNEY 1

		
Amy goes into a shop. She buys a bottle of water.	She goes for a run and drinks the whole bottle.	She runs past a bin. It's overflowing. She puts the empty bottle with the rubbish.
		
The wind blows the bottle away from the other rubbish to the other side of the road.	It's blown even further, to the edge of a nearby river.	The bottle gathers alongside lots of other rubbish in the river.

JOURNEY 2

		
Adil visits his aunt in the hospital. He buys some crisps from a vending machine.	He eats the crisps but can't see a bin in the hospital corridor.	He puts the empty packet in his bag and takes it home.
		
He puts it in the bin at home.	The rubbish truck collects the rubbish on Monday morning and takes it away.	The crisp packet ends up in a landfill site, alongside millions of tonnes of rubbish.

What were the similarities between the two journeys? What were the differences?

Module 1: Lesson 2

Name: _____

Date: _____

THE JOURNEY OF PLASTIC



Draw and describe your own journey of a piece of plastic, from use to waste. It could be based on one of the ones you've learned today, or it could be your own idea.



What is the best route for plastic? Where should it end up and why?



Complete your own journey of plastic

Draw pictures and describe what is happening

Journey		Waterways	
<p>Inspiring or motivating others to achieve a goal with you.</p> <p><i>EG: Through leadership, Marinette will help and show her classmates how to do the right thing with plastic.</i></p>		<p>A moving body of water</p> <p><i>EG: Canals, rivers and streams are waterways and can transport people and other things, like rubbish, along their paths.</i></p>	
Landfill		Environment	
<p>A place where rubbish is put and buried between layers of earth.</p> <p><i>EG: There are 8 million disposable nappies thrown into landfill every day.</i></p>		<p>The surroundings in which we live.</p> <p><i>EG: Animals survive best in a clean, natural environment.</i></p>	

Can you use any of the key vocabulary from this lesson?

Lesson 3: The Impact of Plastic Animals, humans and the environment



The story of the mysterious stomach ache...



Fish



Seabird



Turtle



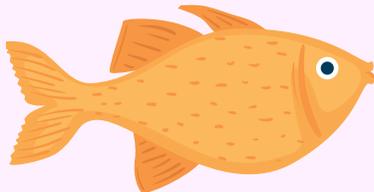
Whale Doctor

In your groups, choose someone to play each character and act out the short story together.

DID YOU  KNOW?

Ingest	
To eat and swallow food. <i>EG: I ate cereal for breakfast and ingested all the nutrients!</i>	

All tested fish have been found to have plastic in their stomachs



Birds which eat fish have been found to have plastic in their stomachs.





Time for some experiments...



There are three **experiments** to try.

Make sure you **discuss** the questions with your group.

Write your **observations** on your experiment card after each one.

Module 1: Lesson 3

Name: _____

Date: _____



Experiment 1: The _____ Experiment	
What I observed:	What I think:
	
Questions I have:	

Experiment 2: The _____ Experiment	
What I observed:	What I think:
	
Questions I have:	

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The Jellyfish Experiment

Choose a question to discuss with your partner.



What can we do to help keep plastic bags out of the ocean?



Why do you think fish and other ocean animals might try to eat a plastic bag floating in the ocean?



The Milk Bottle Experiment

Choose a question to discuss with your partner.



How do you think this experiment represents microplastics?



Why do you think microplastics could be more harmful than larger plastic items?



The Fiber Experiment

Choose a question to discuss with your partner.



Where do you think the microplastics end up? At the top or bottom of the ocean?



What happens to animals when they ingest plastic?



The following slides show images of animals who have been harmed by plastic.

IMPORTANT: You might find it upsetting to see these images - this is because it is upsetting that this happens! It's normal to feel sad or angry.

In the next few lessons, we will find out how we can take action to stop this from happening further.

YOU can make a difference.



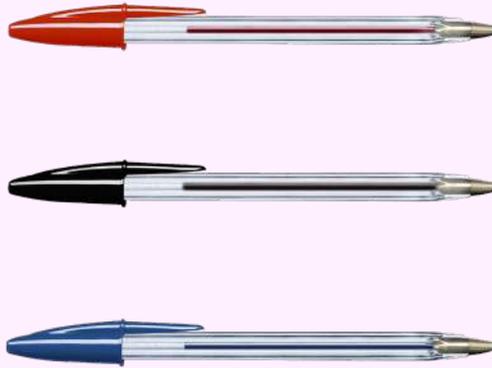




How much plastic are humans ingesting?



5 grams a week



21 grams a month

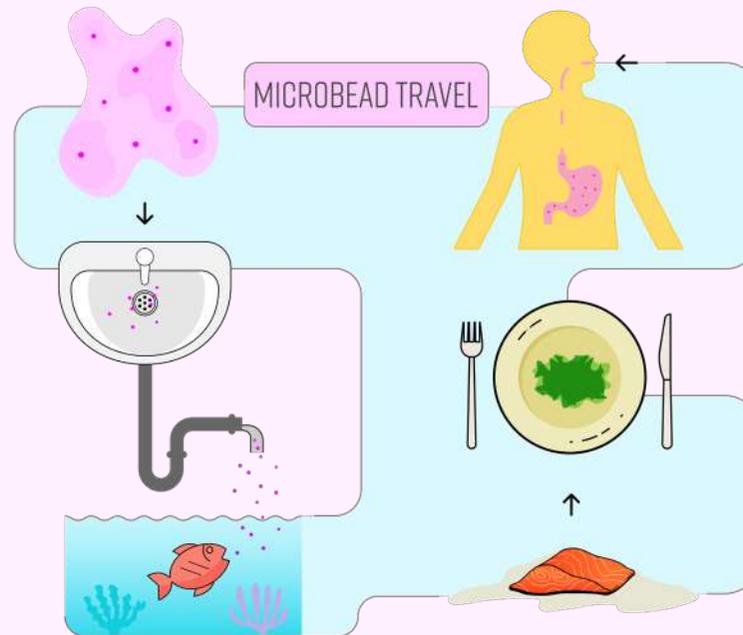


250 grams a year!!

DID YOU KNOW?

DID YOU
KNOW?

MICROBEAD
TRAVEL



It's not just animals who are ingesting plastic, humans are too!

Module 1: Lesson 3

Name: _____

Date: _____

REFLECTIONS SHEET



How I feel about the plastics problem: Some ideas of how we can help:





REDUCE REUSE RECYCLE

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Now that you've learnt a lot about the history, journey and impact of plastic, how does it make you feel?

Do you have any initial ideas of what could be done to help?

Record your thoughts on the Reflections Sheet.



Module 1: Lesson 3

Name: _____

Date: _____



REFLECTIONS SHEET

How I feel about the plastics problem:

Some ideas of how we can help:



I cannot believe that...
It upsets me that...
I didn't know that...



I think we could... because...
If only...
Let's try... so that...

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Now that you've learnt a lot about the history, journey and impact of plastic, how does it make you feel?

Do you have any initial ideas of what could be done to help?

Record your thoughts on the Reflections Sheet.



Part of

PLASTIC

Changemakers

A partnership between:



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