

Comprehension Activity

# The History of Plastic



# Before Watching

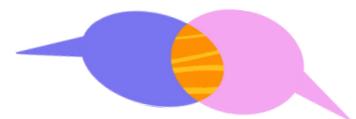
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## Essential Question:

Who invented plastic and when was it first made?

## Zone In



Share the following facts with your students before watching the video:

*Did you know ...?*

- *Plastic comes from the Greek word 'plastikos' that means 'to form'. It was named this because it can be shaped in many ways by heating and cooling it.*
- *Plastics can take up to 400 years to break down in a landfill.*

*But who invented plastic and when was it first made?*

Tell students that in the next set of activities they are going to find out about who invented plastic and when it was first made.

# Before Watching



## Brain Dump

Also known as 'free recall', this quick retrieval strategy will help you understand how much your students already know about **plastic** and **recycling**.

Before watching the video, ask students to write down everything they know about **plastic** and **recycling**. You could ask students to record this information in their workbooks on a divided page, or on post-it notes that can be then placed on a whiteboard or shared space in the room. Invite students to look at the responses of other students.

You may also wish to give them stimuli, such as stills from the video to activate thinking.



## Watch the video



Watch the video *The History of Plastic*.

Complete the interactive video questions while watching individually or as a class. This will prepare you for the classroom activities that follow.

# After Watching



## Think It! Talk It!

### Think-Pair-Share

Some countries have considered banning the use of plastic carrier bags unless they are biodegradable (will rot down in a landfill site).

In pairs, ask students to discuss:

- What do you think about shops handing out carrier bags to their customers?
- Do you think it is a good thing or a bad thing? Why?
- What problems can carrier bags cause?
- What are the alternatives to plastic bags?

## Read It!

There are three worksheets for each Text Card. The worksheets are labeled A, B, and C and vary in difficulty. Distribute the appropriate worksheet to each student. Instruct students to use the video and the Text Card to complete the worksheet activities.

### Worksheet A

Question 1.

- a) true
- b) false
- c) true
- d) true
- e) false
- f) false
- g) false
- h) false
- i) true
- j) true

Question 2.

- a) can be bent easily without breaking.
- b) easily set on fire.
- c) not expensive.
- d) lasts a long time.

Question 3.

- a) polystyrene
- b) neoprene
- c) nylon

# After Watching



## Read It!

### Worksheet B

Question 1.

- a) true
- b) true
- c) false - Bakelite was very versatile; it could be used for many different things
- d) true
- e) false - the molecules linked together were called superpolymers
- f) true
- g) false - plastic is made from oil and gas which are non-renewable resources
- h) false - some types of plastic can be recycled

Question 2.

- a) imprinted
- b) denture
- c) because it could be used for a huge variety of different purposes
- d) it was popular because it looked like wood
- e) discovered that plastics were made from chains of thousands of molecules linked together
- f) durable
- g) Waste plastic doesn't break down very easily and stays in our environment for a long time.

Question 3.

- a) light, see-through so you can see what's inside and how much has been used, won't break down, can be recycled, can be squashed after us and reused.
- b) light, smooth, can be washed easily, strong - won't break easily, can be made of lots of bright colors, can be shaped
- c) waterproof, light, can be made in lots of colors, hard-wearing

# After Watching



## Read It!

### Worksheet C

Question 1.

- a) false - glass, clay, and rubber can be molded
- b) false - Parkesine was made from cellulose
- c) true and false - ping-pong balls are still made from it
- e) true
- f) true
- g) true
- h) true

Question 2.

- a) versatile
- b) toxic
- c) Celluloid is flammable and therefore dangerous to use.
- d) Bakelite was a good insulator so it was safe to use with electrical goods and goods that became hot.
- e) 13 years

Question 3.

- a) Advantages: light, will fold up into a very small space, can be reused, cheap to make, strong;  
Disadvantages: cannot be easily recycled, takes years to decompose, can harm animals and the environment if not disposed of correctly.
- b) Advantages: light so it can be stacked easily, can be made in lots of colors, cheap to buy, can be easily cleaned; Disadvantages: not as strong as wood or metal, can blow away easily, color fades in sunlight.

## Write It!

Distribute the *Writing Prompts* to students to complete in pairs or individually.