

Week commencing Monday 15th June 2020

LO: To build a boat powered by a chemical reaction

QUESTION: How does chemical reaction power a boat?

What is a chemical reaction?

A chemical reaction is a process where a set of substances undergoes a chemical change to form a different substance.

You may think that chemical reactions only happen in science labs, but they are actually happening all the time in the everyday world. Every time you eat, your body uses chemical reactions to break down your food into energy. Other examples include metal rusting, wood burning, batteries producing electricity, and photosynthesis in plants.

Follow these links to learn a little more about chemical reaction:

Chemical reaction in cooking food <https://www.bbc.co.uk/bitesize/clips/z9wkjxs>

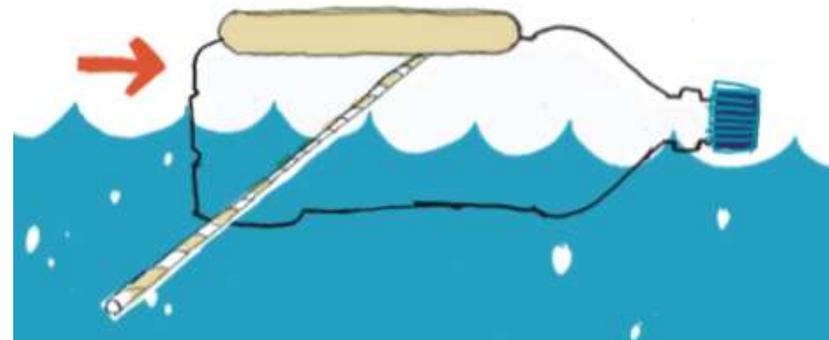
Task: You are going to build a boat that is powered by a chemical reaction. Observe what happens during the chemical reaction, as you will need to create a step by step guide for other school children. You can do this by taking photos or notes.

Instructions:

1. Tape the cork and ice-lolly sticks together to form a triangle.
2. Tape the triangle to the middle of one side of the bottle.
3. Make a hole in the end of the bottle, at the opposite side to the triangle, so it will sit below the water.
4. Push the drinking straw through the hole so the end inside the bottle touches the inside wall.
5. Pour in vinegar and add bicarbonate of soda. Screw the bottle top back on tightly.
6. With a thumb covering the end of the drinking straw, shake the bottle.
7. Once the reaction starts, drop the boat in the water and watch it propel forward.

You will need:

- Small plastic bottle
- Sticky tape
- A cork
- Two ice lolly sticks
- Scissors
- Drinking straw
- Vinegar
- Bicarbonate of soda
- Somewhere to sail it- bath tub or sink



What did you learn from this practical task?

In your own words, answer the question in the heading.

Write a step by step guide of what happened during the practical task when you tested your boat. Draw an image followed by an explanation.

Did a chemical reaction occur?

1)	2)	3)	4)
5)	6)	7)	8)