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BAKING SODA POWERED BOAT

September 25, 2013 By Emma Vanstone 27 Comments

Today I have another great baking soda and vinegar activity for you. We are going to make a baking soda powered boat.

Materials

- Empty water bottle – small
- Baking Soda



- Straw
- Vinegar
- Tape
- Bath or large container
- Water



Method

- Pierce a hole in the non lid end of the water bottle and poke the straw through, I trimmed mine so only used about one third of the length. Tape around the gap to prevent air escaping and keep the straw in place.
- Carefully pour some vinegar into the bottle and replace the lid.
- Pour some baking soda onto a small piece of kitchen roll and roll it up.



- Place in the water and watch it go.

Can you see the bubbles coming out of the end?



The Science bit

Vinegar (an acid) and bicarbonate of soda (an alkali) react together to neutralise each other. This reaction releases carbon dioxide a gas which is the bubbles you see.

The force of the movement of the carbon dioxide backwards causes a reaction force which pushes the boat forwards.

Can you think of any other forces which might affect the movement of the boat?
How about wind? Or movement of the water if it was disturbed as the boat was placed onto it.

For lots more [Baking Soda science ideas](#), check out our round up and Challenge.



Monster Tea Party

Baking Soda powered boat

Baking Soda Volcano

Baking Soda Popper

Fizzing rocks with baking soda

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