

Pirate Density Investigation

You Will Need

- An empty bottle or jar
- Water
- Oil
- Pirate objects to test



Method

- 1 Half fill your container with water, then add some oil.
- 2 Carefully drop your objects into the jar, what happens?



Can you mimic the motion of the waves? What happens if you mix the oil and water?



The Science Bit

Investigation! Can you put your hand in to the jar?

What do you notice about the oil and water?

Can you find something to float on each layer?

Which Materials Make the Best Pirate Ship?

You Will Need

- Elastic bands
- Skewers
- Glue
- Paper
- Wooden lolly sticks
- Plasticine
- Black cardboard
- Corks
- Sponges
- Optional - pirate decorations
- Anything else you would like



Method

- 1 Construct your boats using different materials.
- 2 Test your boats on the water.



Can you use a straw to create waves across the water?

The Science Bit

Investigation! Can you blow on the boats with a straw?

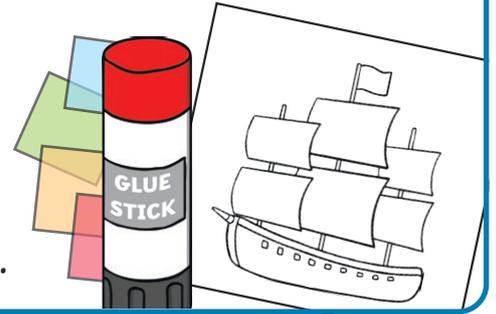
Which are the most stable?

What happens when you blow gently and then with more force?

Waterproof Pirate Ship

You Will Need

- Paper (to draw a pirate ship on)
- Glue
- Water
- Spray water bottle
- Materials such as kitchen roll, plastic, bubble wrap, tissue paper cut into squares.



Method

- 1 Draw your pirate ship.
- 2 Place the squares of materials over the picture using glue.
- 3 Spray water over the picture and observe the changes to the paper.



Can you think of any natural waterproof materials?



The Science Bit

Investigation! Does it make a difference if you use more than one layer of the materials that were less good at repelling water?
Can you cut some shapes out of the plastic, stick them on paper and paint over the top to make a picture?

Fizzy Pirate Coins

You Will Need

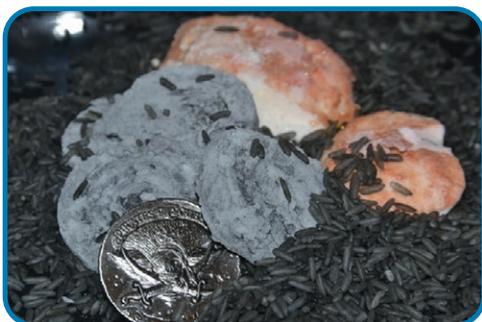
- Baking soda
- Food colouring
- Water
- Flour (optional)
- Coins
- Vinegar



Method

- 1** Clean some pennies to be shiny pirate coins, to do this place them in cola or vinegar.
- 2** For the rocks, pour your baking soda into a bowl and add water slowly until it makes a paste. (If you want to pad out the baking soda, add some flour when you mix. As long as it's not more than half and half you should still get a good reaction).
- 3** Add a couple of drops of food colouring and mix well.
- 4** Either mould with your hands or use cake moulds to create shapes, press a coin into each.
- 5** Leave in the fridge overnight.
- 6** Use a dropper to drop vinegar onto your pirate rocks. Observe what happens.

The Science Bit



Why does this happen? Vinegar (an acid) and Bicarbonate of soda (an alkali), react together to neutralise each other. This reaction releases carbon dioxide gas, which causes the bubbles you see.

Which worked best at cleaning the coins? The cola or vinegar?



Pirate Magnet Maze

You Will Need

- Thick cardboard
- A magnet
- Metal paper clip
- Pirate maze



Method

- 1 Draw a pirate ship on a small piece of cardboard and attach a metal paper clip.
- 2 Place the magnet on the underside of the maze and use it to guide the ship around the maze.



Remember - not all metals are attracted to magnets, but iron and steel are.

The Science Bit

Did you know?

Magnets attract some metals and can be different strengths. Magnets have two poles, we call them the north pole and south pole. opposite poles attract each other and the same poles repel.

Pirate Themed Maze

Can you help the pirate find his treasure chest?

