



Hello



Everyone



Welcome

to



our



Science



Pages



Each



week



I



will



be posting



new



experiments

for



you

to



try,

so



make



sure



you



remember

to



tell



us



how



you



get on



with



them.



Please



email



us



your



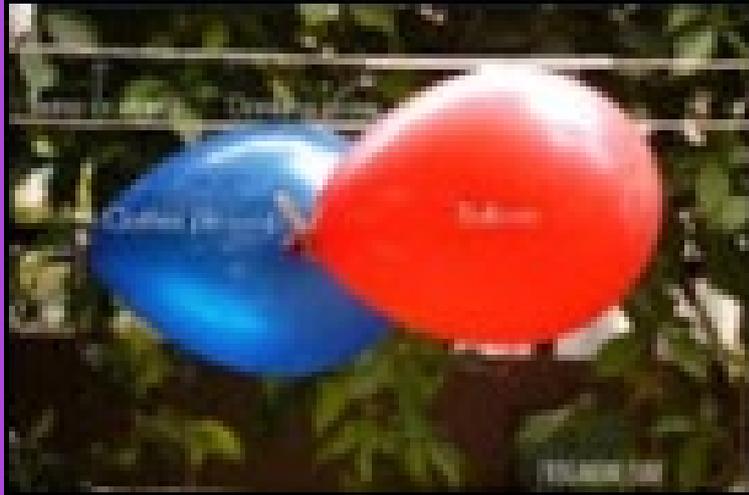
thoughts

to : remote.learning@pieldheathschool.org.uk



Thank You

Balloon Rockets



THE SCIENCE

The rocket moves by something called thrust. As the air rushes out of the balloon, it creates a forward motion called thrust. Thrust is a pushing force created by energy. The thrust comes from the energy of the balloon forcing the air out. Different sizes and shapes of balloon will create more or less thrust. In a real rocket, thrust is created by the force of burning rocket fuel as it blasts from the rocket's engine – as the engine's blast down, the rocket goes up.

You will need:

- Balloon (round one's work but the longer one's are best)
- String
- Straw
- Tape
- Clothes peg

1. Tie one end of a piece of string to a chair, door handle etc, or have someone hold the end.
2. Put the other end of the string through a straw and pull the string tight.
3. Inflate the balloon, twist the end and secure it with a clothes peg.
4. Use tape to attach the balloon under the straw.
5. Release the peg to launch your rocket!

Mark on the string with pen where your balloon ends and try to beat it.

Why not set up two and have a race?

DIY Lava Lamps

You will need:

- Vegetable/Sunflower oil
- Vinegar
- Food colouring
- Bicarbonate of soda
- Tall glass or bottle
- Spoon
- Small cup



THE SCIENCE

Oil and vinegar do not have the same density (how heavy something is for its size) Vinegar is denser than this type of oil- that's why it sinks to the bottom of the container.

Once the vinegar touches the bottom of the container, it reacts with the bicarb.

This chemical reaction creates bubbling carbon dioxide which rises – these are the bubbles you see within the container

1. Add three spoons of bicarbonate of soda into the tall glass or bottle.
2. Fill two thirds of the container with oil-but don't mix!
3. In the small cup, add some vinegar and several drops of food colouring.
4. Slowly add drops of your coloured vinegar into your oil / bicarb mixture and watch your lava lamp come to life!

Why not try adding different colours to your lava lamp?

Nature Bracelets

?



How to make a nature bracelet .



1



1. Cut tape loosely around the wrist

2



2. Attach so the sticky part of the tape is facing out .

3



+



3. Decorate and enjoy .

?



Extension: Why not create a rainbow bracelet hunting for something that includes every colour.

Shadow Puppet Theatre

You will need:

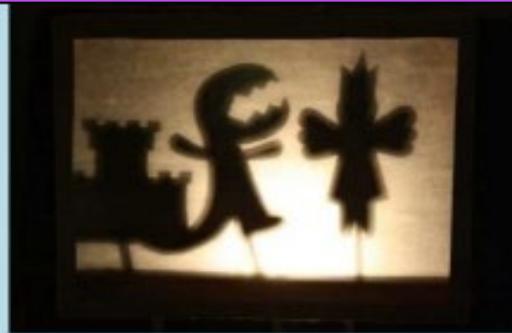
- Cardboard box (e.g. cereal box)
- Tissue paper or a couple of tissues
- Tape
- Straws or skewers
- Lamp



THE SCIENCE

Light travels in a straight line. A shadow is formed when the path of the light is blocked by an object that isn't see-through.

1. Tape the box closed then cut a large rectangle from the front and back – leave about an inch border around each edge. Save the cardboard you have cut away!
2. Tape the tissue paper or tissues (1 ply) over the hole on one side only. The side with the tissue faces your audience. The other side is where you, the puppet master, will work your magic.
3. Draw and cut out your puppets using the leftover cardboard and add a straw or skewer. To make them more life-like, you could add hinged body parts with split pins. Just make sure each part has a straw attached.
4. Set up your room with the audience on one side of the theatre and the lamp on the other. You need to be between the lamp and the theatre but not blocking the light. Now it's show time!



Ready for a challenge?
Look up how to make
shadow creatures using
your hands!



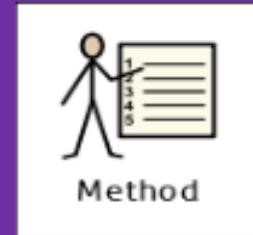
RAINBOW JAR



Clear clean bottle
Dropper
Golden syrup
Honey
Olive oil
Food colouring
Water (coloured blue)
Surgical spirit (red)
Washing up liquid
(green)

The Science

This is all about ingredients having different weights or density . The heavy ingredients are on the bottom and the lighter ingredients stay on top .



Pour in the

1. Honey (DO NOT TOUCH THE SIDES OF THE CONTAINER)
2. Golden Syrup (coloured purple)
3. Washing up liquid (green)
4. Water (blue)
5. Olive oil
6. Surgical Spirit (red) (using dropper)

MAGIC MILK



Ingredients:

1. Milk
2. Cotton bud
3. Washing up liquid
4. Food colouring



Method

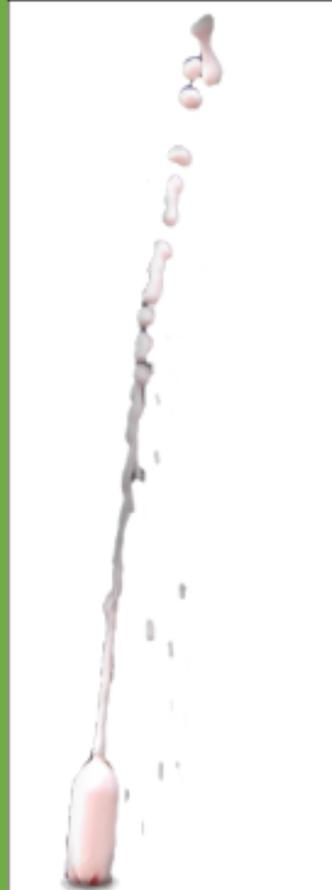
1. Pour some milk onto a plate .
2. Add drops of different food colouring .
3. Dip the cotton bud into the washing up liquid .
4. Dip the cotton bud with the liquid into the colouring and watch what happens !

How to make a Volcano



Ingredients:

10ml washing up liquid
100ml cold water
400ml white vinegar
Food colouring
Baking Soda (BS)
Slurry (fill half a cup with BS and the rest of the cup with water)
Mix the BS and the water together until a liquid .



Method

1. Put the vinegar, water, washing up liquid and food colouring into an empty soda bottle.
2. Pour the Baking Powder Slurry into the bottle and stand back !



Science

A chemical reaction between the vinegar and Baking soda creates a gas called Carbon Dioxide . There is not enough room in the bottle for the gas to spread out so it leaves through the opening very quickly, causing an eruption!

Warning : Do this experiment outside .