Science Week - Reception

Question: What happens to Jelly Babies when you leave them in water?

What we did:

Using a clear cup and water, we put 5 Jelly Babies in the water and left them over a few days to see what happens.

Predictions- “I think they will explode”. “I think they will change colour”. “I think they will grow”.

We also experimented adding water to skittles, adding water and food colouring to celery and touching bread with unwashed and then washed hands.

Photos and examples

What we learnt

They jelly babies grew bigger and bigger - because they absorbed the water.

Science Week - Year 1

Questions - How many different things do you notice about the bubble?
Why do you think the bubbles are round?
What makes them burst?

Equipment: warm water, washing up liquid, glycerine, sugar.
Things for making bubble blowers eg. wire coat hanger, cup
Bucket, shallow tray, scissors, string, tape.

What we did - Made up bubble mixture
Tested making bubbles with different bubble blowers.
We investigated: (Through observation and curiosity)
Trying to make really big bubbles.
Which we thought was the best bubble blower and why?

Photos and examples

What we learnt - The bubble film is thin, made from soap and water with air inside. Even making bubbles with different shape blowers - the bubbles created were sphere or a stretched sphere.shape.
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Science Week - Year 2

Question:
What are the properties of slime?

Equipment:

- **Food colouring**
- **Cornflour**
- **Water**
- **Bowls**
- **Spoons**
- **Syringe**

What we did

1. Get your equipment.
2. Use a spoon to scoop 200g of cornflour carefully into a bowl.
3. Add in 200ml of water.
4. Add in 4 drops of food colouring.
5. Mix altogether using your hands!

Photos and examples

What we learnt

Slime is sometimes a liquid but sometimes a solid. When you apply pressure to the slime, the particles go really close together, making a solid. When you don't apply pressure, the particles spread out making it into a liquid.

Science Week - Year 3

Question (What are you trying to find out?)
How does the size of a shadow change?

Equipment
- Torch
- 2 rulers
- An object
- whiteboard

Prediction (What do we think will happen?)
I think that as the torch gets closer to the object, the shadow will..
Some children think: ‘get smaller.’
Others think: ‘get bigger.’

Plan (What will we do?)

What will change?
The distance between the object and the light source.

What will we have to keep the same?
- The distance between the object and the whiteboard
- The torch
- The object we are using
- The height of the torch

What will we measure?
The height and width of the shadow.

What will we do and in what order?
- Get our equipment.
- Set up the equipment.
- Put the torch 10cm from the object and turn it on.
- Use a ruler to measure the shadow.
- Move the torch back 5cm and measure the shadow again.
- Repeat this 6 times.

Conclusion (What did we find out?)

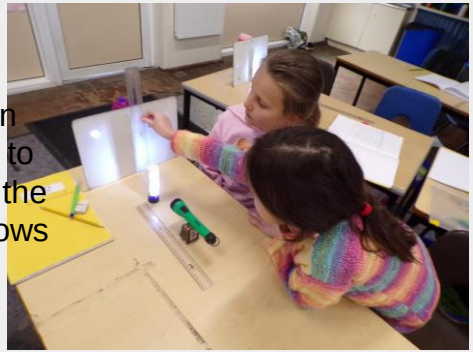
We found out that as the distance between the torch and object increased, the shadow got smaller. Those who predicted that the shadow would get smaller were right.

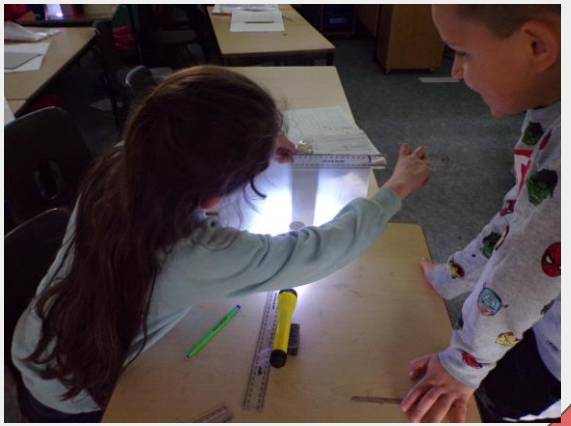
Science Week - Year 3

Photos of our experiment/ examples of our work

We began by investigating shadows to understand how they are made and notice patterns.

Then we planned and carried out an investigation to find out how the size of shadows changes.





Science Week - Year 4

Question (What are you trying to find out?)

What happens when you cover a glass of water with card and tip it upside down?

Equipment

- A glass
- Thick card
- A plastic tray
- Water

Prediction (What do we think will happen?)

I predict that when we change the thickness of the card we use, the water will fall out at different times.
We think this will happen because…the thicker card is stronger and so will hold the water for longer.

Plan (What will we do?)

We will fill the cups with water and put the card on top. We will turn them over and see how long the water stays in the cup for.

Conclusion (What did we find out?)

Using our scientific observation skills, we have noticed… the thinner the card, the less time it keeps the water in for.

We now know this happens because…gravity pulls the water down, but atmospheric pressure pushed the card up to keep the water in until the card gets soggy.

Science Week - Year 4

Photos of our experiment/ examples of our work

Science Week - Year 4

Question (What are you trying to find out?)

What effect do different liquids have on the enamel on our teeth?

Equipment

- 6 cups
- 6 eggs
- 6 different liquids: milk, water, vinegar, coke, squash, orange juice.

Prediction (What do we think will happen?)

I predict that the most damaged egg will be the one in the vinegar because it is an acid and the least damaged one will be in the milk because milk is good for bones.

Plan (What will we do?)

We chose 6 different liquids and put eggs into them for 7 days to see the effect on the shells.

Variables:

- We are going to change the liquids the eggs are resting in.
- We are going to keep the amount of liquid the same.
- We are going to keep the same type of egg.
- We are going to keep the eggs in the liquid for the same amount of time.

Conclusion (What did we find out?)

The egg shells were damaged most by vinegar and least by the water.I think this was because the vinegar is an acid and the water is not. I will drink more water and less vinegar and orange juice because of my findings.

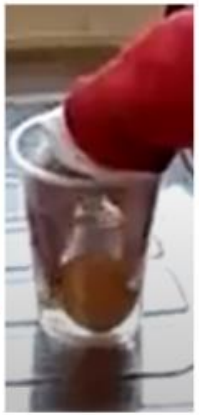
Science Week - Year 4

Photos of our experiment/ examples of our work

The Tooth Enamel EGG-speriment

In science and PSHE we have been looking at ways to keep our teeth healthy from brushing them correctly to being aware of the impact of different liquids on the enamel using eggs to represent the teeth.

The results of our experiment show that the vinegar and orange juice damaged our teeth if they were left on the enamel. Water did no damage to the egg shell.



Science Week - Year 4

Photos of our experiment/ examples of our work

Science Week - Year 5

Question (What are you trying to find out?)

Can you make a raw egg bounce?
What is the effect of a chemical reaction?

Prediction (What do we think will happen?)

The vinegar will make the shell harder so it can bounce.

Equipment

A raw egg
Transparent container
Gloves
Vinegar

Fair test

Variables we will keep the same:
The amount of vinegar
The eggs
Time in the vinegar

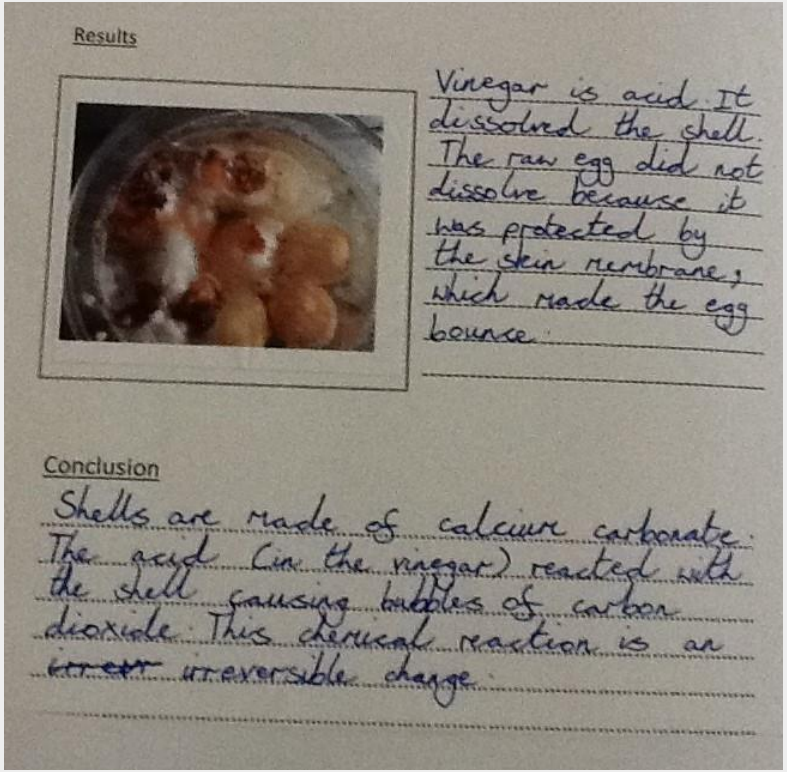
Method (What will we do?)

Gently place the eggs in the container.
Cover with vinegar.
Leave for 48 hours.
Rinse the eggs, wearing gloves.
Drop from a height of 5 cm.

Conclusion (What did we find out?)
The shells (calcium carbonate) dissolved in the vinegar as this acid caused an irreversible chemical reaction. The skin membrane did not dissolve and allowed the raw egg to bounce.

Science Week - Year 5

Photos of our experiment/ examples of our work



Results

Vinegar is acid. It dissolved the shell. The raw egg did not dissolve because it was protected by the skin membrane, which made the egg bounce.

Conclusion

Shells are made of calcium carbonate. The acid (in the vinegar) reacted with the shell causing bubbles of carbon dioxide. This chemical reaction is an ~~error~~ irreversible change.

Science Week - Year 6 MGKC

Question (What are you trying to find out?)
What happens when you mix oil with water?
What happens if you add food colouring to the mixture?
What happens if you then add salt to the mixture?
What happens if you then add an Alka Seltzer to the mixture?

Prediction (What do we think will happen?)
"At first, the oil will bubble up and then sink to the bottom of the cup because it is denser (heavier) than water. If you add salt it will also sink to the bottom of the cup."

Equipment

- Clear plastic cups
- Vegetable oil
- Water
- Food colouring
- Salt
- Alka Seltzer

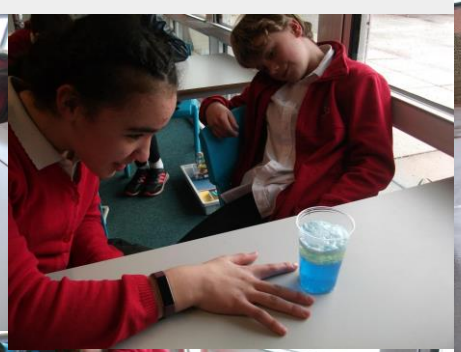
Method (What will we do?)

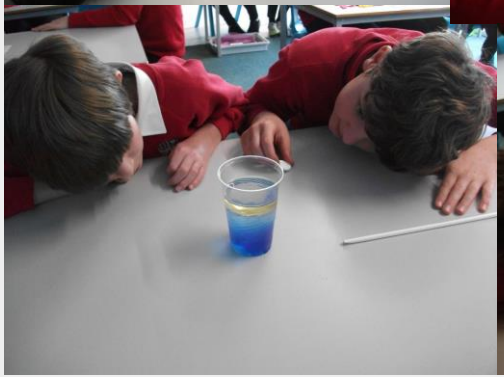
1. Half fill a cup with water
2. Add vegetable oil to the cup of water and watch what happens
3. Add five drops of food colouring to the cup and watch what happens
4. Sprinkle some salt into the cup and watch what happens
5. Add an Alka Seltzer to the mixture and watch what happens

Conclusion (what we found out)
The oil floated on top of the water because it is less dense (lighter) than water. When salt was added to the mixture, it pulled oil down to the bottom of the cup and then the salt started to dissolve. When it dissolved, it released the oil, which floated back up to the surface of the mixture. As the Alka Seltzer dissolved, it made a gas (carbon dioxide). The gas, being lighter than water, floated to the top. The air bubbles brought some coloured water with them to the surface. It looked like a lava lamp!

Science Week - Year 6

Photos of our experiment/ examples of our work




We also had fun discovering how vinegar and bicarbonate of soda can react when mixed together, by making our own bombs and exploding cola bottles of Coke!

Science Week - Year 6HD

Question (What are you trying to find out?)
What is the best structural design for an earthquake-proof building?

Fair test
Variables we will keep the same:
Jelly plate
Building materials

Variable we will change:
Structure

Prediction (What do we think will happen?)
We predict that a triangular structure will be strongest as this can be seen in traditional and modern buildings in earthquake-prone areas.

Method (What will we do?)

We will design and make a simple building structure using modelling materials.
These will then be placed on a jelly surface and those which remain horizontal after three shakes will be deemed successful.

Equipment

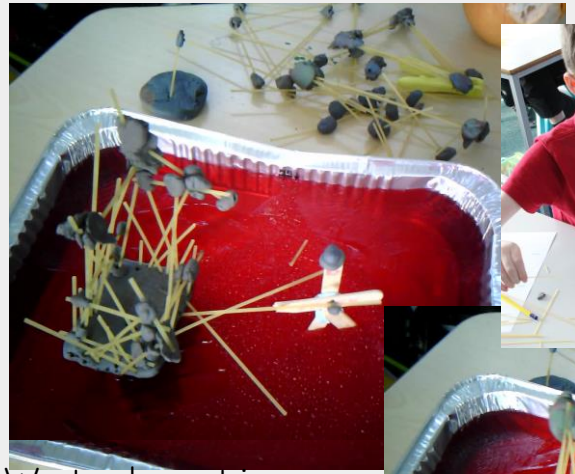
Spaghetti
Modelling clay
Jelly tectonic plate

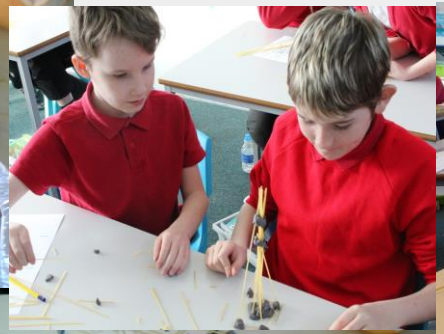
Conclusion (What did we find out?)
Square and triangular-based pyramids proved to be the most successful. Buildings needed to be heavier at the bottom and lighter at the top.

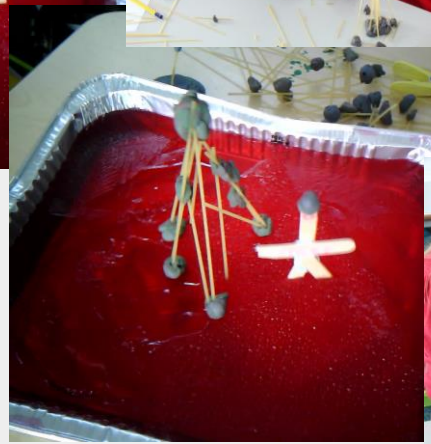
Science Week - Year 6HD

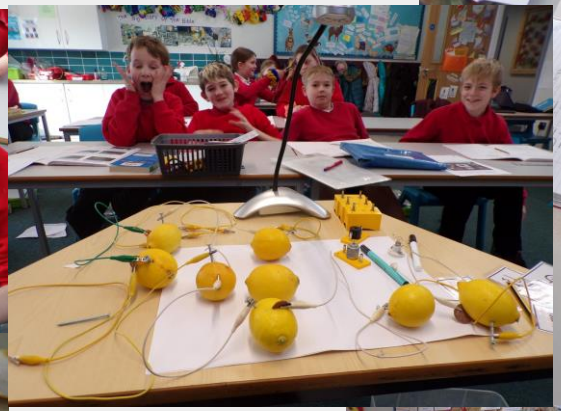
We carried out some electrical experiments. We were a bit worried the lemons would come to life like Frankenstein's Monster!

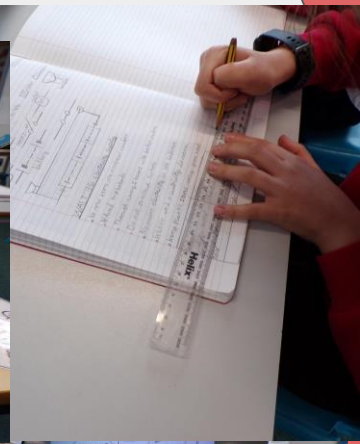
Photos of our experiment/ examples of our work











We took part in an engineering experiment - designing earthquake-proof buildings and testing them on a jelly tectonic plate.