



## Science at St. Louis Catholic Primary School

Welcome to our first newsletter of the school year. Here we will share science news from throughout the school; some examples of the children's science; publish dates of science-based events and share some science activities that will hopefully inspire you to do more science at home too!

We really enjoy learning about science at St. Louis Catholic Primary School and we have had great fun experimenting and investigating during our science topics.



Reception have been exploring the world around them. They have observed the changes during autumn and winter. They have been learning to name the main parts of their bodies and to describe their function. They used mirrors to draw a picture of their face ensuring they had the correct colours for skin, eyes and hair. They have been looking at what is in the night sky, and enjoyed creating paintings of the moon.





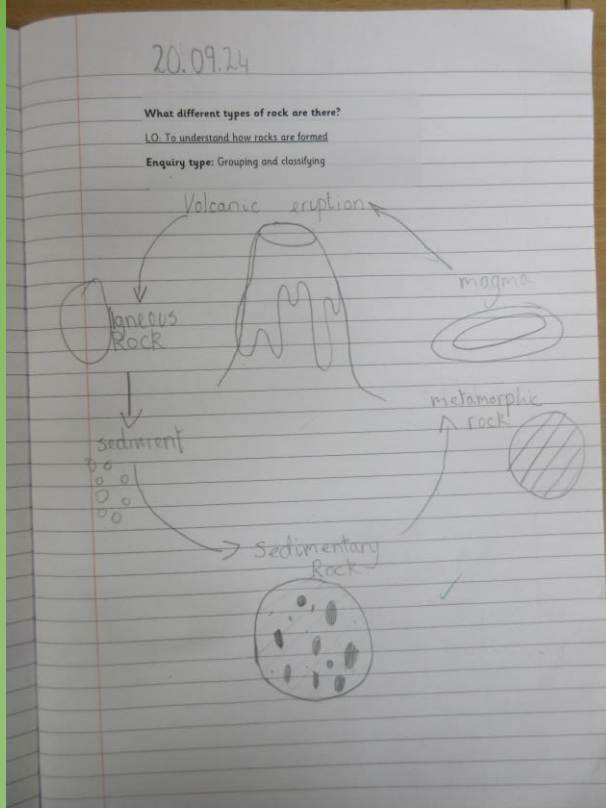


Year 2 children have been learning about 'local habitats.' They visited College Lake to explore which animals and plants they could find. They also using the idea of a simple food chain begin to describe how animals obtain their food from plants and other animals. Through the topic 'choosing materials,' they have also identified and compared the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.



This term Year 1 have learnt about 'using their senses' to help them to find out about the world around them and link those senses to particular parts of their body. They have also looked at 'seasonal change,' where they have begun to observe changes across the four seasons, describing the weather and looking at how the day length varies over the year.





**Be seen** Lenna

**fun fact!**  
 you should stay safe in the dark or you will not see and you will not see something and you will bump your head.

**Explanation to see:**  
 So when you drive on a bike when a van might not see you and you will get really hurt someone sees and you are safe.

**Why it is important:**  
 It is important because if you won't see you will hurt someone and you are safe.

**Light coat** (with drawing of a vest)

**Light** (with drawing of a lightbulb)

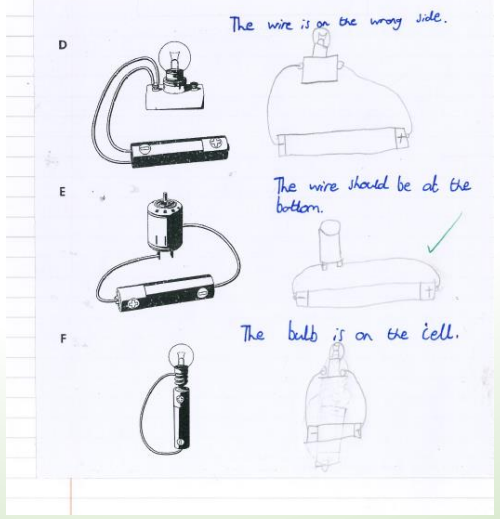
Year 4 have been learning about 'changes of state.' They have compared and grouped materials together, according to whether they are solids, liquids or gases. They have observed that some materials change state when they are heated or cooled, linking this to the water cycle.

They have also explored 'electricity: circuits,' constructing simple series electrical circuit, identifying and naming its basic parts.

Year 3 children have explored 'light and shadow.' They learnt that shadows are formed when the light is blocked and found patterns in how the size of shadows change. In 'rocks, soils and fossils' the children compared and grouped different rocks, recognised that soils are made from rocks and organic matter and described how fossils are formed when things that have lived are trapped within rock.

**Why doesn't it work?**

LO: To identify and correct problems with circuits  
 Enquiry type: Exploration



**How does a circuit work?**

LO: To explain, using a model, how an electrical circuit works

Electricity is the movement of electrons. The cell pushes the electrons around the circuit. The cell has a positive and negative terminal. The electrons are everywhere in the wires and move from the cell to the bulb creating a complete circuit. The bulb will light up as soon as an electron is passed for it. If the wire is disconnected the bulb will go out instantly.

**Word bank:**  
 bulb, cell, electrons, electricity, flow, instant, circuit, disconnected, negative, positive, terminal, break, wire

**Q. What is making the bulb light up?**  
**Q. What does the cell do?**  
**Q. Which direction does the electricity flow through the circuit?**



Thursday 19th September 2024

How does the shape of an object affect its movement in water?

LO: To measure the effects of water resistance

Enquiry Skill: carrying out simple comparative and fair tests

\* because it has a good ~~see~~ shape and it has a pointed side.

I predict that the ~~sub~~ shape will have the most water resistance. I predict that the ~~the~~ round shape will have the least water resistance because of the shape it needs a little pointed bit. The variable we will change is the shape of the bottle and a little amount of the blue tack. To keep this a fair test we will put it in the same amount of water and weigh of that blue tack.

Shape	Time in seconds
Control shape	1.918
Round bow	4.840
Pointed bow	2.403
Sharp bow	1.045
Teeth bow	4.640

Conclusion  
The best shape for the bow is the sharp shape because it has the quickest time because the sharp end made it streamline.

Thursday 5th December 2024

Can the same material keep cold things cold and hot things hot?

LO: To explore the properties of thermal insulators.

Enquiry Skill: Comparative testing

I think that the ice cube in the cool bag will get colder because of the materials the bag is made of. I think the boiling water in the cool bag will stay the same because the bag will adapt to the temperature. I think the boiling water in the class room will get colder because it will adjust to the low temperature. I think that the cold water in the class room will get warmer because it will adjust to the room temperature.

I discovered that the cool box was able to keep the cold water at exactly 14°C. When the cold water in the classroom started at 14°C but then went up to 16°C.

I discovered that the cool box kept the

29.11.24

L4 - What can fossils tell us?

LO: To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago

Enquiry skill: research using secondary sources

Fossils  
The evolution from Eohippus to the modern horse

What changes have happened for Eohippus to evolve into horses?

First, the Eohippus evolved over time to a Mesohippus. It got taller and longer. It still had stripes. Its longer legs will have helped it to run fast and escape predators. Second, the Mesohippus evolved over time into a Merychippus. It developed hooves and the stripes moved to the hind legs. Then, the Pliohippus grew a thicker tail and grew in height. Lastly, the Modern horse developed a long mane and tail. It also grew longer and taller.

- 1 Fossils are the petrified remains of plants and animals.
- 2 Paleontologists are scientists who study fossils.
- 3 Fossils are identified and dated by measuring different layers of sedimentary world.

## MICRO-ORGANISMS

WHAT ARE MICRO-ORGANISMS?

Micro-organisms are living things that are too small to see with a naked eye. To see them you would need a very powerful microscope.

WHAT DO MICRO-ORGANISMS LOOK LIKE?

HOW ARE MICRO-ORGANISMS GROUPED?

Bacteria - micro-organisms that are usually found in water.

Fungi - micro-organisms that get nutrients from their surroundings.

Monera - They're the largest micro-organisms kingdom by far.

HOW CAN MICRO-ORGANISMS BE HELPFUL?

Some micro-organisms can help our body, like some help you digest our favourite foods. Some even bring flavour our food, like the mould on a block of blue cheese is safe to eat.

HOW CAN MICRO-ORGANISMS BE HARMFUL?

There are many different micro-organisms in our body and they all do many different things. Sometimes bad micro-organisms get into our body and can make us sick. Sometimes they are stony mild illnesses but some carry diseases.

Through the topic 'forces and mechanisms' Year 5 children have learnt about the force of gravity. They have investigated the effects of air resistance, water resistance and friction and learnt how levers and pulleys allow a smaller force to have a greater effect. They have also built upon previous knowledge in 'properties and uses of materials' by giving reasons, based on evidence from comparative and fair tests, for the uses of everyday materials.

Year 6 have learnt about 'evolution and inheritance.' They recognised that living things have changed over time and that fossils provide information about this. They also identified how animals and plants are adapted to suit their environment in different ways. In 'the classification of living things' the children have developed their knowledge of living things to deepen their understanding of why and how organisms are classified.

**Activity title**

**Snow blizzard in a jar**

**Stay safe**

Whether you are a scientist researching a new medicine or an engineer solving climate change, safety always comes first. An adult must always be around and supervising when doing this activity. You are responsible for:

- ensuring that any equipment used for this activity is in good working condition
- behaving sensibly and following any safety instructions so as not to hurt or injure yourself or others

Please note that in the absence of any negligence or other breach of duty by us, this activity is carried out at your own risk. It is important to take extra care at the stages marked with this symbol: ⚠

**Time required**

5 minutes for experiment (30 minutes with set up and discussion & 45 minutes for variations)

**Activity summary**

Create your very own snow blizzard in a jar using things you should be able to find around the house.

**By the end of this activity, you will be able to:**

See how two liquids with different levels of viscosity, will not mix together and instead the oil will sit on top of the water.

Watch as a chemical reaction takes place between an effervescent tablet and the water, releasing Carbon Dioxide as a gas.

It captures white paint inside its bubble and lifts it up through the layer of oil and then drops it down again when the bubble bursts as it reaches the air at the surface of the oil.

**What equipment will you need?**

- 1 x glass jar
- baby oil (enough for half your jar)
- cold water (enough for half your jar)
- white paint (a good splodge)
- biodegradable glitter (sprinkle)
- effervescent tablets.

Why not try these science activities at home! We would love to see any photos from any science related activities you complete at home. You may even appear in the next newsletter! Please email these to the school office FAO Science leader.

**Activity title: Snowstorm in a jar**

**How to do it**

- Pour enough baby oil to fill almost halfway up your jar
- Mix the white paint into your water
- Pour the white paint water mixture into your jar

**Notice: What happens to the white paint mixture and the oil?**

- Sprinkle in the glitter
- Pop an effervescent tablet into the jar

**Notice: Can you see what happens to the tablet in the water? What happens to the glitter in the oil?**

**Now try this**

1. Adding more tablets
2. Adding half a tablet
3. Adding different amounts of oil and water
4. Adding more or less glitter



# SNOW VOLCANO



## You'll need

- 2 spoonfuls of baking soda (bicarbonate of soda)
- 1 spoonful washing up liquid (dish soap)
- A few drops of red food colouring
- 30 ml vinegar
- Spoon
- Snow
- Small container



## Instructions

Add everything except the vinegar to the container and stir well.

Carefully shape a volcano shape around the container using snow.

Add the vinegar and watch as the volcano erupts! If it doesn't work very well, add a bit more washing up liquid and vinegar and stir again.

## Why does it work?

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 bubbles of gas make the washing up liquid bubble up to give a lovely thick lava!



## RSPB Big Garden Birdwatch

Join the world's largest garden wildlife survey from the 24-26th January 2024. Count and record the number of different birds that visit your garden and send the results to RSPB [Big Garden Birdwatch](http://Big Garden Birdwatch) ([rspb.org.uk](http://rspb.org.uk))

We will also take part in the RSPB Big schools birdwatch.

# FROST ON A CAN



## You'll need

- A clean empty can
- Crushed ice
- Water
- Salt
- Spoon



## Instructions

Fill the tin can about half full with ice and add a little water and a couple of tablespoons of salt.

Wait and watch the frost form. If it doesn't work, try adding more salt.

## Why does it work?

Initially the temperature of the icy water will be around the freezing point of water (zero degrees Celsius). However, for frost to form it needs to be even colder, which is why salt is needed. Salt lowers the freezing point of ice, making the ice melt. To do this it draws heat from the surroundings (in this case the tin can) making them even colder. The salt reduces the temperature on the surface of the can to below freezing point which makes the water vapour in the air condense and freeze on the surface!!