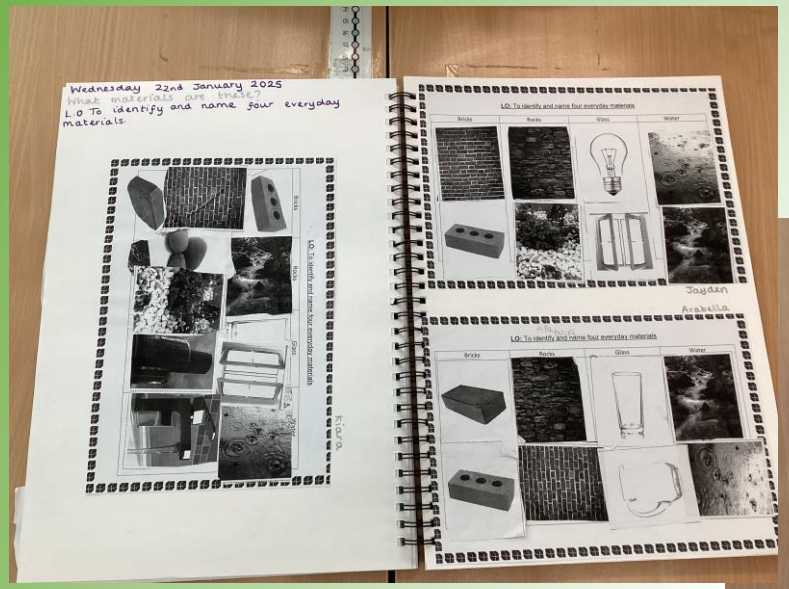
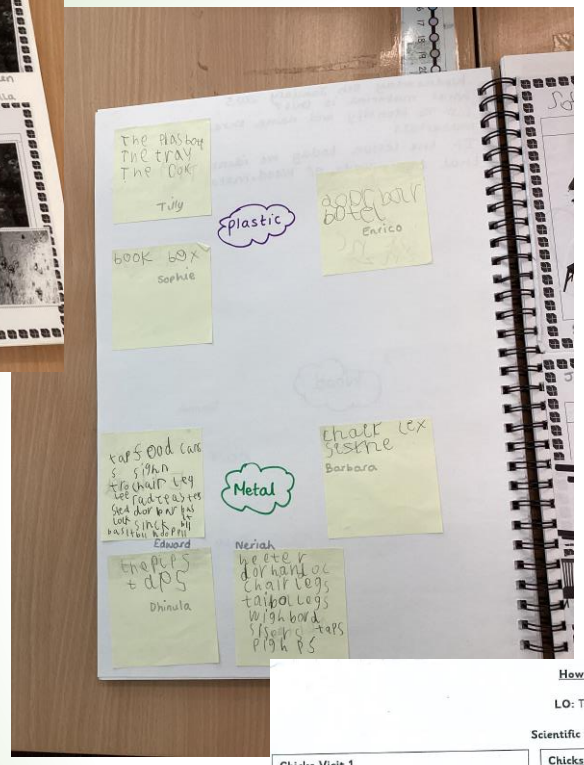
Science at St. Louis Catholic Primary School

Welcome to our second newsletter of the school year. We have had a busy term learning about science, finishing with celebrating British Science Week. Here are some examples of the children's science from each year group as well as some information and photos from British Science Week and some science activities that will hopefully inspire you to do more science at home too!

Reception have been learning about how to care for plants and describing the changes they have seen as they have grown. They have been on a spring walk to look for signs of spring around our school.

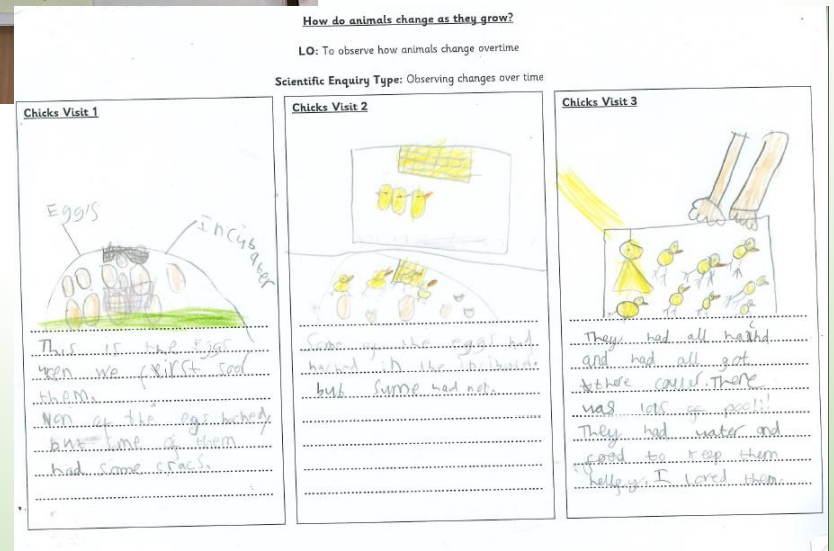
They have learnt about different animals, including matching animals to their young and beginning to learn about camouflage. They have learnt about which animals hatch from eggs and were amazed at watching chicks hatch in an incubator in their classroom.

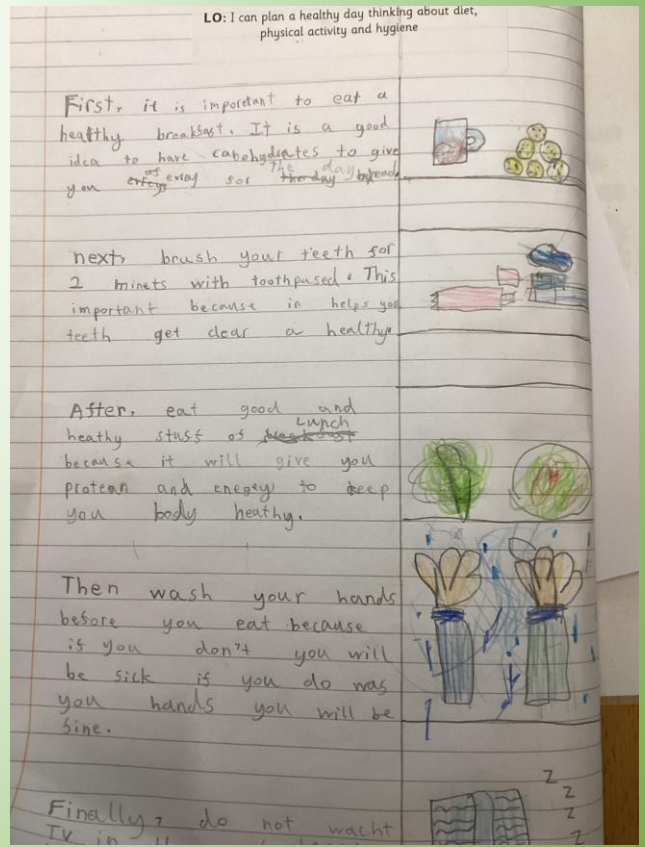


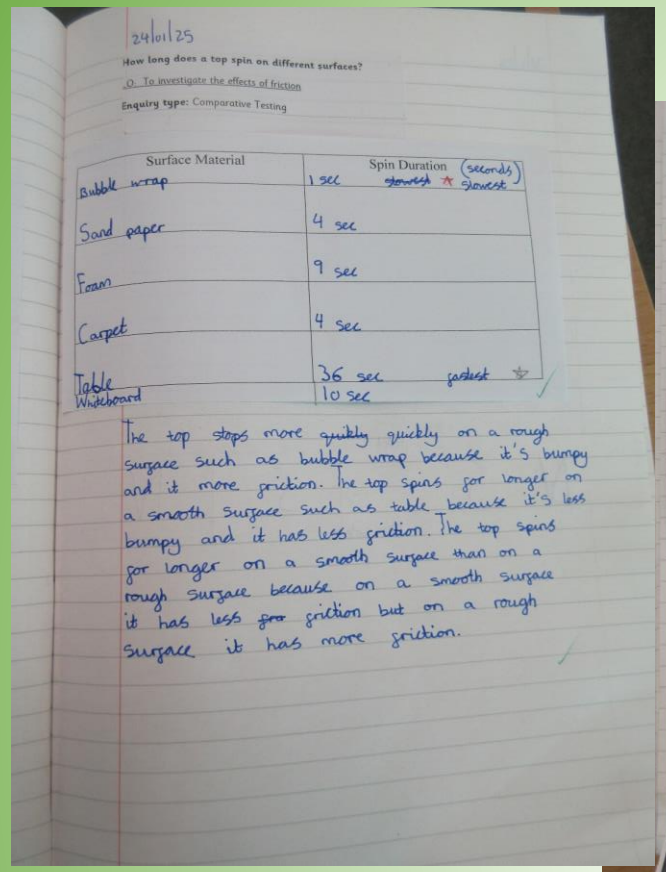


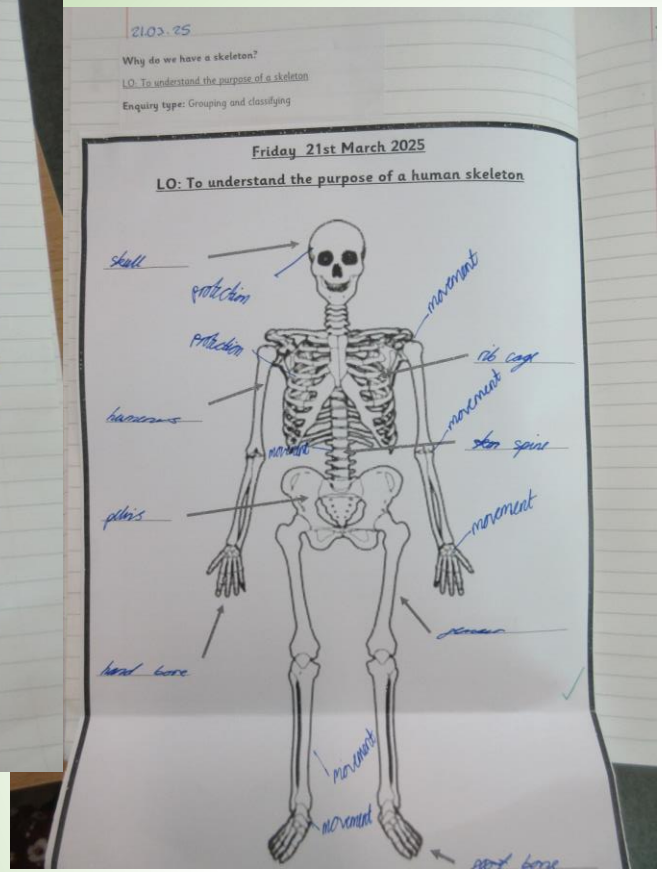
Year 2 have built upon what they learnt in Year 1 and have been 'growing seeds and bulbs.' They have investigated the best way to plant a seed and if the size of a seed affects the height the plant will grow.
They have been learning about 'growing up' considering the basic needs of humans for survival (food, water, air), the need for warmth and shelter, and additional needs for health and wellbeing.

This term Year 1 have been introduced to a range of basic materials and their properties through the topics 'naming and describing materials' and 'properties and uses of materials.' They have completed simple investigations looking at the best type of paper to use and how far does a sick stretch. They have also taken part in the RSPB Big School Birdwatch.

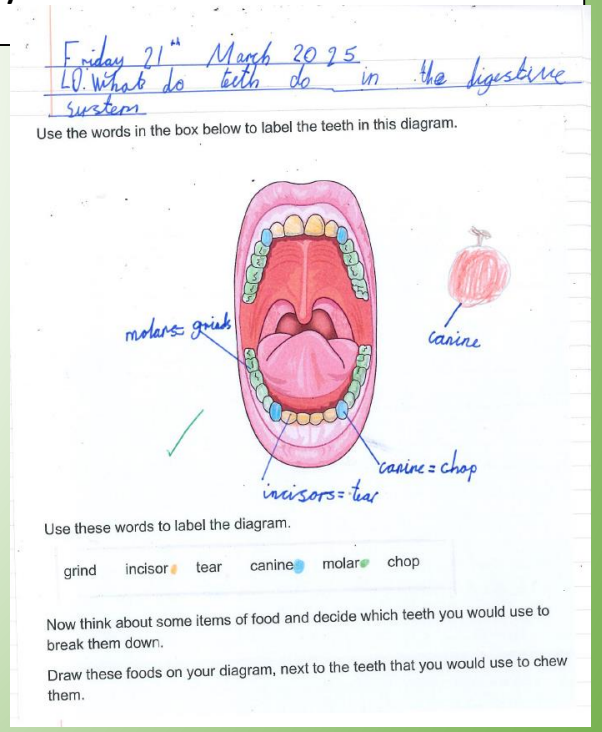






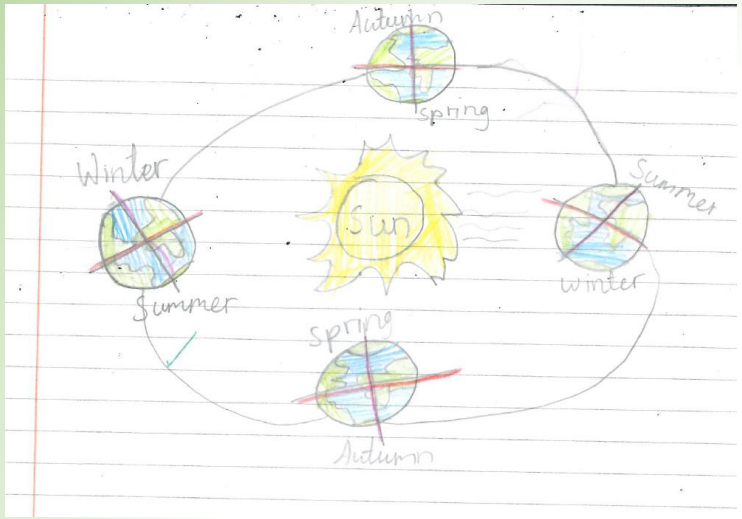


Year 4 have learnt about some of the positive and negative ways that humans change the environment, locally and globally, with a particular focus on how this affects other living things in the topic 'human impact'. They have also been learning about 'digestion and food chains.' They have been looking at the simple functions of the basic parts of the digestive system in humans, identifying the different types of teeth in humans and their simple functions. They have also constructed and interpreted a variety of food chains, identifying producers, predators and prey.



Year 3 children have explored 'forces: friction and magnets' and have completed investigations exploring forces and using magnets. They have built on their knowledge of the human body developed in Key Stage 1 in 'movement and nutrition in the human body' looking at nutrition, skeletons and muscles.

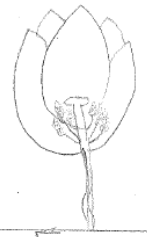
Year 5 children have developed their knowledge of the Earth's (and other planets') place in the solar system, and their relationships with other bodies in space, in particular with the Sun. They have also been looking at the 'circle of life.' They compared different life cycles, identifying common features as well as explaining key differences. They also learnt about reproduction in plants and animals.

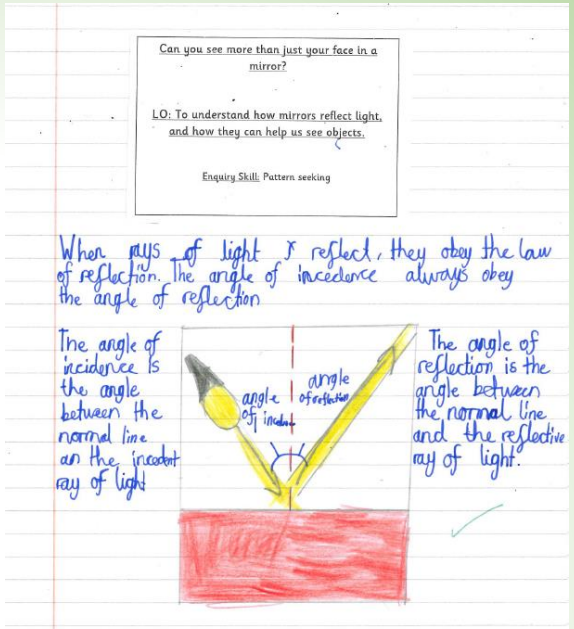


SNAP SCIENCE 2ND EDITION, YEAR 5, MODULE 4: PLANT AND ANIMAL LIFE CYCLES, LESSON 2, RESOURCE SHEET 2

FLOWER COMPARISON

Look carefully at each flower. Compare them with each other. Use a magnifier to help you to look closely.

	FLOWER ONE Rose	FLOWER TWO Tulip
Draw the flower.		
How many petals?	It has 23 petals.	It has 5 petals.
How many stamens?	It has much more than 5.	It has 6 stamens.
Draw the shape of the stigma.		


Can you see more than just your face in a mirror?

LO: To understand how mirrors reflect light, and how they can help us see objects.

Enquiry Skill: Pattern seeking

When rays of light reflect, they obey the law of reflection. The angle of incedence always obey the angle of reflection

The angle of incidence is the angle between the normal line an the incedent ray of light

The angle of reflection is the angle between the normal line and the reflective ray of light.

28/02/25

L1 - To identify the contents of blood and describe their function

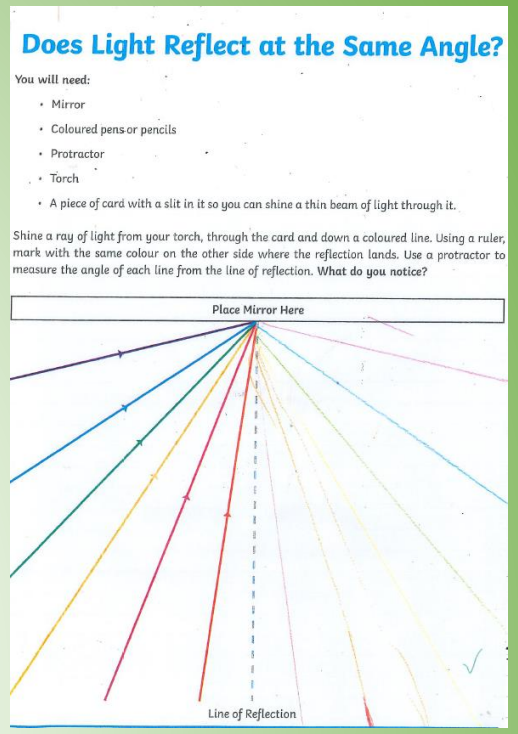
LO: What is blood and what is in blood?

Name: Red blood cells
Job: To carry oxygen around the body
Extra information: Contains a chemical haemoglobin that makes the blood red
Diagram:

Name: White blood cells
Job: Fight viruses and bacteria
Extra information: They can travel wherever they are needed in the body
Diagram:

Name: Plasma
Job: Contains the components of blood
Extra information: It is mostly made of water
Diagram:

Name: Platelets
Job: Causes the blood to clot
Extra information: They're broken cells
Diagram:



Year 6 have built upon their knowledge how light travels and investigating shadows in 'what light does.' In 'human circulation' they have learnt about the human circulatory system and how it enables their bodies to function.

This term EYFS and Key Stage 1 were very lucky to have the experience of watching eggs hatch into chicks. Year 2 have used this to learn about animal life cycles by observing how the chicks changed over time. A very big thank you to the PTA for funding this amazing interactive learning opportunity.

Upcoming Science related events

Earth Day- 22nd April https://kids.nationalgeographic.com/celebrations/article/earth-day

World Oceans Day – 8th June – See science fun at home activities

Clean Air Day - 20th June – See science fun at home activities

The Great Exhibition Road Festival – 7th - 8th June - A weekend of free events in South Kensington (booking is required for some activities) celebrating how science and the arts help people, communities and nature flourish

Home - The Great Exhibition Road Festival

SCIENCE FUN AT HOME

Have some fun at home with these science activities from Science Sparks and the Primary Science Teaching Trust

BEFORE YOU START! Please read through this with an adult:

- Make sure you have read the 'IMPORTANT NOTICE' on the back of this page.
- If you have a space outside that you can use safely, then you can do the 'Try this outdoors' activity outside. Don't worry if not as you could still do it indoors.
- Talk to your adult about sharing the science you have done and if they want to share on social media, please tag **@ScienceSparks** and **@pstt_whyhow** and use **#ScienceFromHome**

SCIENCE FUN FOR WORLD OCEANS DAY

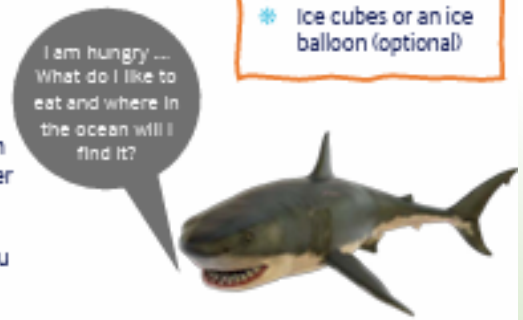
1 TRY THIS INDOORS ... Deeper and deeper

If you took a dive into the ocean, what animals would you find as you got deeper and deeper? Find or draw some pictures of ocean animals. Which zone in the ocean do they live in? How deep is each zone? Find out more here and try this interactive 'Deep Sea' activity. Cut out your animals and stick them on the 'Deeper and deeper into the ocean' sheet (see end page) to show where they live.

WHAT DO YOU NOTICE?

Things to talk about ...

What is it like at the bottom of the ocean? What do animals in the ocean need to survive? What makes it harder to survive at the very bottom? What makes it easier? If you lived in the ocean, what kind of animal would you rather be? Why? How would you rate your chances of survival?!



You will need

- Pictures of different ocean animals
- Scissors and glue
- Washing-up bowl or large container, filled with water
- A selection of objects that float, e.g. apple, orange, candle, piece of wood, plastic toy
- Plastic bottle
- Ice cubes or an ice balloon (optional)

2 TRY THIS OUTDOORS ... Floating in the ocean

Fill your washing-up bowl with water. Put things you think will float into the water and observe carefully to see how much of the object is under the water and how much is above the water. Try an empty plastic bottle (with the lid on) and see how much of it is above the water and how much is below? Now try filling or half-filling the bottle with water – what difference does this make? You could try an ice cube, or an 'iceberg' (made of lots of icecubes, or water frozen in a balloon). How much of this is under the water and how much is above? Why do you think people in ships need to be careful near icebergs?

WHAT DO YOU NOTICE?

Things to talk about ...

What can you find that floats but most of it is under the water? What can you find that floats where hardly any of it is under the water? What makes the difference? What materials are your floating things made from?

3 WHAT IS THE SCIENCE?

Whether something floats or sinks depends on its density: how much mass it has for a given volume. If something has a lower density than water, it will float, and if it has a higher density than water it will sink. An object like a beach ball full of air has a much lower density than water, so it will float with most of it above the water. But if an object has a density only slightly lower than that of water, it will float with most of the object submerged. When water freezes, it expands a tiny bit. This means ice has a density that is close to, but slightly less than, water, so it just floats. This is why icebergs are dangerous to ships: most of the iceberg is actually below the waterline, so a ship could crash into it long before it reaches the part that can be seen.

4 MORE ACTIVITIES YOU COULD TRY

MAKE AN ICEBERG! www.science-sparks.com/titanic-science-make-an-iceberg

EXPLORE A CORAL REEF www.encounteredu.com/live-lessons

HOW MUCH DO YOU KNOW ABOUT SHARKS? www.wowscience.co.uk/resource/shark-quiz-2/

DEEPER AND DEEPER INTO THE OCEAN

THE SUNLIGHT ZONE

THE TWILIGHT ZONE

THE MIDNIGHT ZONE

THE ABYSS

SCIENCE FUN AT HOME

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SCIENCE FOR CLEAN AIR DAY

You will need

- Spray perfume, deodorant or air freshener (choose something with a strong scent)
- Measuring tape/ruler or timer
- Magnifying glass for examining lichen (optional)

1 TRY THIS INDOORS .... What a stink!

You need two people for this activity, one at each end of a room or corridor, with Person 1 holding some spray air freshener, deodorant or perfume. Person 1 sprays a small puff (**SAFETY NOTE**: always avoid spraying near anyone's face and especially eyes). Person 2 then walks slowly towards Person 1 until they sense the smell at which point, either mark the spot or measure the distance to Person 1. Or, Person 2 could stay still and use a timer to see how long it takes for the smell to reach them. Next try swapping Persons 1 and 2 over, or try using a different scent spray.

WHAT DO YOU NOTICE?
Things to talk about ...

Can you smell some perfumes, air fresheners or deodorants from further away than others? Can some people smell things from further away than others? What types of smell seem to travel fastest or furthest?

You can also find some activities from the Imperial College London which you can do at home. https://www.imperial.ac.uk/be-inspired/schools-outreach/primary-schools/stem-enrichment/science-resources/home-science-experiments/

Why not try these special 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.

2 TRY THIS OUTDOORS .... Looking for Lichens

Look closely at the trees around you – can you see anything growing on the trunks or branches? If so, you might have spotted some lichen. There are many different types of lichen, but by identifying which species you have found, you can learn about the quality of the air nearby. Some types of lichen struggle to grow in polluted air, while others grow well.


Usnea

WHAT DO YOU NOTICE?
Things to talk about ...

Which types of lichen did you find growing near roads? Which types of lichen did you find **not** near a road, or in green spaces like a park?


Hypogymnia


Cushion Xanthoria

3 WHAT IS THE SCIENCE?

We can smell a scent from a distance because the particles of gases in the air and the scent spray are moving randomly. So the scent spray particles gradually spread out, moving away from where they are most concentrated to where it is least concentrated. This process is called **diffusion**.

Lichens consist of two types of organisms - a fungus and either an alga or a type of bacteria - that live together and depend on each other. The fungus makes the body that protects the alga/bacteria, and the alga/bacteria provides the food for the fungus. Common types to look out for: **Hypogymnia** has large, green-grey lobes, but it won't grow where there is air pollution; **Usnea** looks like a green beard and is usually found hanging from tree branches. It indicates a clean-air environment as it doesn't like the nitrogen found in polluted air; **Cushion Xanthoria** is bright-yellow or orange lichen. It loves nitrogen so it is an indicator of polluted air.

4 MORE ACTIVITIES YOU COULD TRY

MAKE A FAKE LUNG www.science-sparks.com/breathing-making-a-fake-lung/

FIND OUT MORE ABOUT LICHEN www.imperial.ac.uk/opal/surveys/airsurvey/

WATCH 'GASES IN THE AIR' – A SCIENCE SHOW WITH SOME EXCITING SUPRISES!
www.pstt.org.uk/resources/curriculum-materials/citizen-science-air-pollution (to find the video, click on the tab **'Classroom Resources'** and scroll to the bottom of this page)

British Science Week
Class activities

This year we decided to have a whole school child led activity with all children completing a ‘rocket mouse’ investigation.

Nursery and Reception made rocket mice using straws, seeing how far they could send the mice. They had to roll a piece of paper around a pencil to make the rocket and had fun shooting them across their playgrounds.

Nursery

Reception

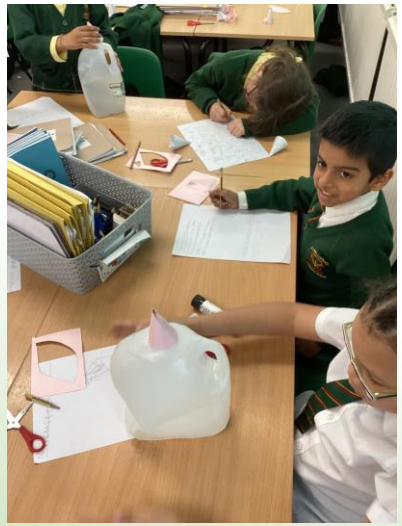
British Science Week
Class activities

Children from Key Stage 1 and 2 chose their own investigation, ranging from does a big milk bottle make the mouse go further to does the material of the mouse change how far it travels? They then created a poster to show their results.

Year 1

Year 3

Year 2

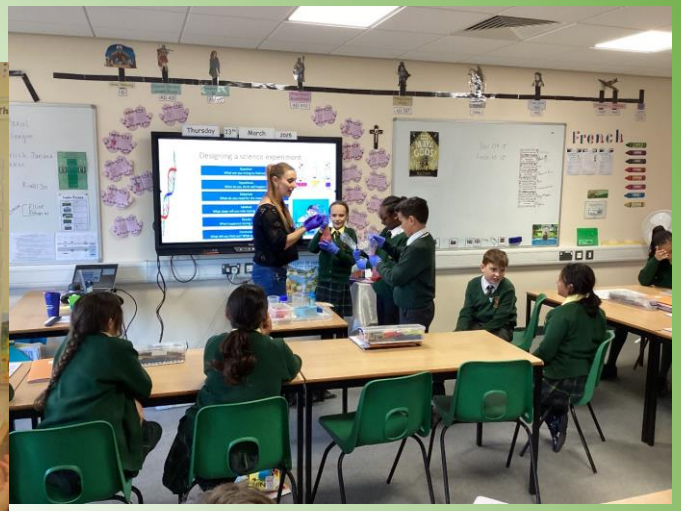


British Science Week
Class activities

Year 4

Year 5

Year 6



British Science Week
Visits from real life scientists!

Many classes were also lucky to have a visit from a parent volunteer who is a 'real scientist' with a science related job. Children found out how identical our DNA is to chimpanzees, made gene bracelets and even extracted DNA from a strawberry. They found out some interesting facts: our DNA is 50% identical to that of a banana's! We have 100 billion miles of DNA from all our cells if laid out end to end, that would stretch from the Earth to the Sun 30 times! Thank you again to Nathalie for coming into school.

British Science Week Poster Competition

Well done to those children who entered the poster competition. We were very impressed with the quality of the posters. The winners were Dev (Reception), Olivia (Year 2), Ella (Year 4), Valerie (Year 4) and Oliwia (Year 5).