



APPS Science News



Newsletter 1: December 2023

Welcome to our first whole school science newsletter. We have had an exciting autumn term with lots of different learning taking place across the school. Read on to find out more. Also, at the end of this newsletter, you will find a couple of ideas for science experiments to do at home as a family. I would love to see photographs or hear about what you do. Feel free to email them to me via the school office or chat to me when you see me around school.

Back to this term. We were lucky enough to borrow some microscopes from the Royal Microscopical Society to support our learning in some lessons. We also used them during our year group Science Days and in the playground at break time.



"It's amazing! Everything looks so big." Mia Deer



"WOW!"

"It was amazing!"
Archie C Squirrel



"It's hard but then you see it." Rocco Year 1



"It changed by getting humungous. I liked seeing the veins in the leaves." Joseph Deer





In Year 4 we used the microscopes to look closely at bugs, sand which looked like a white moon when we used the microscope, sugar, salt and foam. The foam was like a maze in the microscope. How weird!

By Charles (Kingfisher)



For Year 6 Science Day, we used microscopes to investigate coins that could have evidence on. We studied a newspaper but it was ripped so we had to use the microscopes. There were four suspects and two different newspapers. We needed to figure out who stole the jelly baby. It was a successful lesson and we had lots of fun.

By Gracie (Red kite)



Family science fun

Some children brought their families into Deer Class after school to show them how to use the microscopes.



Other science news



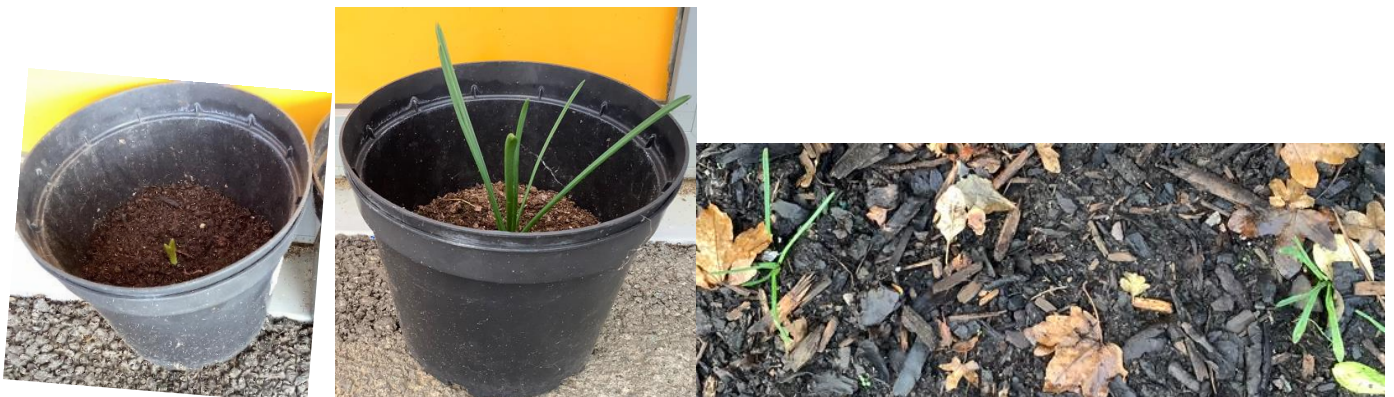


Year 2 had a visit from an environmental scientist who told us about his job. He showed us how he uses microscopes to look closely at the plants and pollens he collects. He also told us about his trips to South America – How exciting!

Year 6 have been making Anderson shelters in Design & Technology and used their knowledge about electricity from Year 4 and from more recent lessons to construct an electrical circuit to light up the inside of their shelters. They had to think carefully when planning and making their design to ensure no light escaped out of the shelter otherwise, they would be seen by the enemy. Well done Year 6!



Great news – In Year 2, we have been watching our pots and planting area closely to see what has already started growing since our science day. One of our bulbs in the pots is growing really well and we have spotted them shooting through the soil in our bedding area. How exciting! Which bulb will grow next?



Prem Singh Gill – Polar Scientist

As a school, each year group has been learning about a different scientist using the resources from the Primary Science Teaching Trust – A Scientist Just Like Me. We decided to share this one with you.

By Mia, Maggie and Darcie (Year 5)



Prem Singh Gill works with the Scott Polar Research Institute in Cambridge, with the British Antarctic Survey and with the World Wildlife Fund.

When he was at school he loved dancing, playing video games and riding his bike. His favourite lesson was geography because he got to learn about the world, all sorts of people, countries, landscapes and wildlife.

Now he enjoys relaxing with his friends in his spare time and likes learning Portuguese.

What does he do as a polar scientist?

He studies seals and sometimes uses satellites. He has been to Antarctica. He monitors where the seals live, breed and feed. He has to find out more about their health and diet. This helps us to protect things living there and the whole region itself. I help to protect cute seals and penguins from people.



Would you like to be a polar scientist?
Why? Why not?

What skills and interests do you already have that would help you to become a polar scientist?

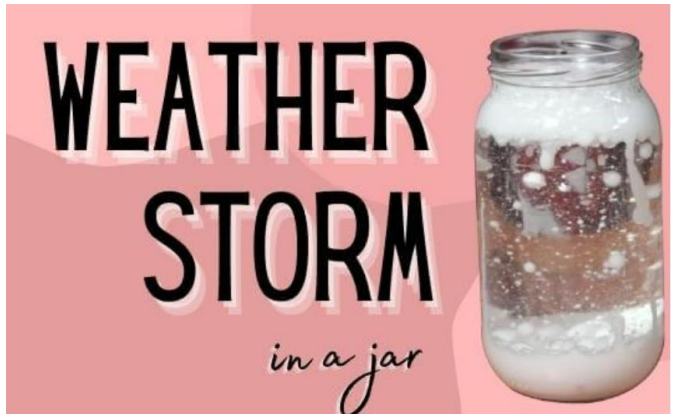
What new skills and knowledge would you need to develop?

Try at home...

Blizzard in a jar

Things you will need:

- Baby oil
- White paint
- 1 cup water
- Alka-Seltzer tablets
- Jar
- Glitter and blue food colouring



Instructions:

1. **Fill** about $\frac{1}{4}$ of the jar with baby oil.
2. **Squeeze** some food colouring and glitter into the oil until it is the desired colour.
3. In a separate container, **blend** water with a few tablespoons of paint.
4. **Pour** the water and paint mixture over the oil solution until the jar is about $\frac{3}{4}$ full.
5. **Drop** your Alka-Seltzer tablet into the mix and watch the storm whirl before

The science behind

Since oil is less dense than water, naturally, water sinks to the bottom of the jar. However, when you place the Alka-Seltzer inside, the interaction between the tablet and water creates an air pressure that pushes water upward. The oil then, being less dense, brings the swirling water back down.

Dissolving Candy Canes



In this Christmas science experiment, children use candy canes and various liquids to learn about solubility. We don't think about it, but solubility is part of life. For example, every time you digest food or drink medicines, solubility plays a significant role in breaking down and distributing the good stuff in the body with the help of water.

You will need:

1. Candy canes
2. Clear jars/containers – the same size. One for each liquid.
3. Various liquids e.g. water, vinegar, oil, soda/sparkling water (feel free to choose or ask your child what fluid they prefer using for this Christmas experiment)

Instructions:

1. Predict which fluid you think will melt the candy cane the fastest and slowest. Record your predictions.
2. Place the jars in a line and pour the same amount of liquid in each jar. Label the jars with the name of the liquid.
3. Place one unwrapped candy cane in each jar at the same time.
4. Set a 3-minute timer and wait.
5. At 3 minutes check the experiment results.
6. What happened? Did you predict correctly?

The science behind

The solubility of candy canes on different liquids depends on their polarity. Polar objects dissolve faster in polar liquids. At the same time, non-polar substances dissolve better in non-polar fluids.

In this Christmas science experiment, candy canes are composed of sugar which makes them polar. That's why they dissolve faster in water, vinegar, and soda. However, we fail to see them dissolve on a non-polar liquid like in the oil.

In the next newsletter, look out for information about our new 'Bug Club' started by some girls in Moorhen, Year 4.

Bug Club is a highly intelligent club where we have got together to save nature. We have been researching which plants will attract bugs to our school. We want to plant these and take care of the environment. If you want to donate any seeds, bulbs or plants please hand them in to the office who will give them to us. We are looking forward to planting in the spring and watching what happens.

By Aoife and Aaliyah



Have a fantastic break and don't forget to share any science fun you have as a family with me!

Mrs Heath

Science Lead