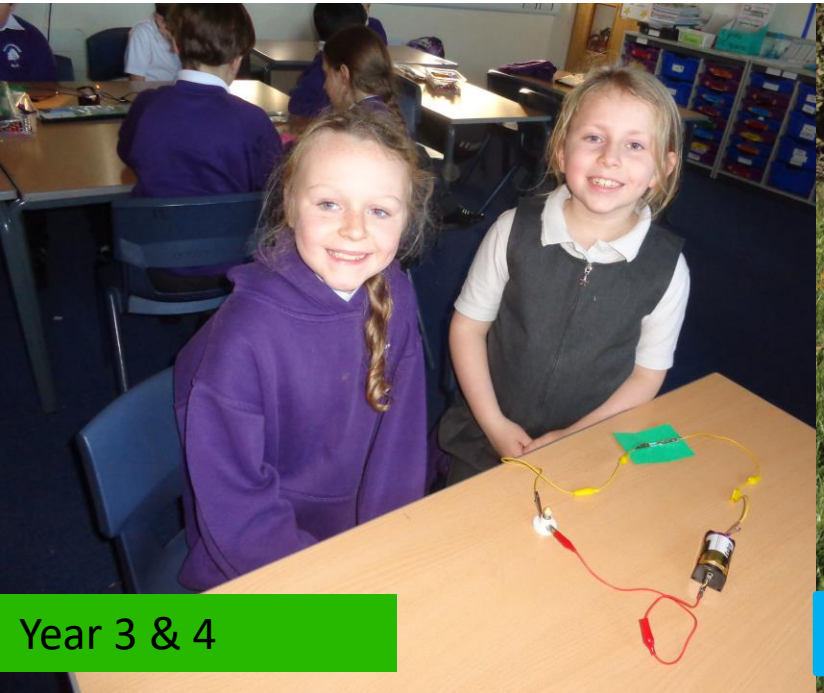
EYFS work

Year 1

Year 2

Barrowcliff School

Learning together Growing together



Year 3 & 4

Year 5

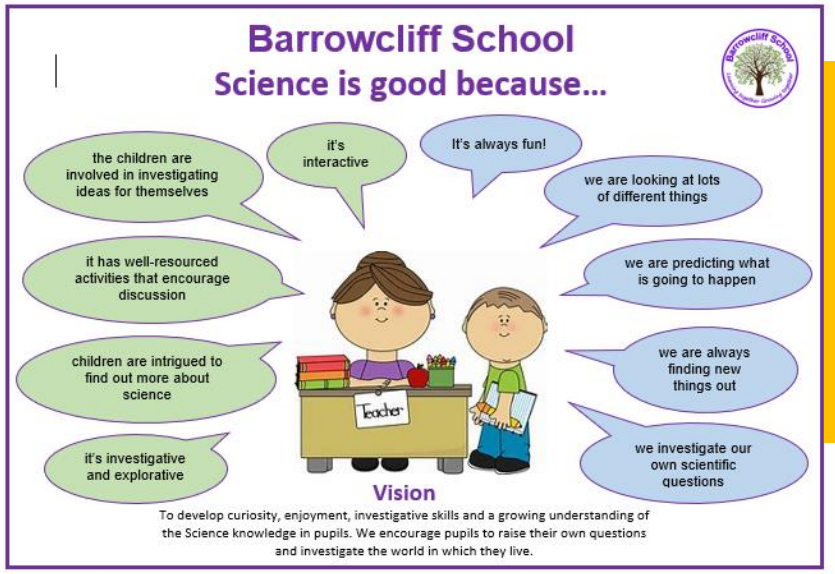
Year 6

# A clear vision for Science to inform teaching and learning, giving a well define clarity of purpose.

## What does good Science look like?

Mentimeter

| | | |
|---|---|---|
| Children being excited about a topic | Active, discussion, collaborative, | Interactive, thought provoking activities to engage all pupils |
| Interactive. | Good science looks investigative and explorative from a child's point of view. | Hands on |
| Experiments | Children intrigued to find out more | Engaging and fun. |




ACTION: In a Science Staff meeting, colleagues were asked to make comments about how 'Science was good' in school. They inserted their ideas through a Mentimeter presentation.

Subject Leader conducting interviews with Yr1 – Yr6 Children asking their views on Science.

**Pupil's Voice Questionnaire**

**November 2021**

**What is Science?**

*Yr2 – Exploring*

*Yr4 – lots of experiments, it's fun, interesting, learning new things about animals, electric, rocks, how things are made,*

*Yr5 – Experiments, work better, learn about electricity, turn something on, batteries.*

**What does good Science look like?** (ask the children what they think a Science lesson should include)

*Different materials, fun, natural disasters, magnifying glasses, volcanic rock.*

*Use the 'stuff' (apparatus), learn about new things – like fire, electricity traveling, volcano's erupting*

*Experiments, turning things on, exploding volcano's, body parts.*

**What do you like about Science?**

*Children expressed their interest in experiments and that it is fun and can be exciting. They like exploring and being happy controlling something and making explosions.*

**What do you find hardest in Science lessons?**

*They expressed a worry about presenting their findings and writing up the work. They thought that working things out was hard and trying to draw. Concerns were expressed about how it will turn out.*

**What would you like to do more of?**

*The children wanted to more about materials, electric and natural disasters. They wanted to know more about animals, plants and humans. They wanted to make potions that explode. The older children expressed a desire to work on a real heart.*

It's always fun learning new things

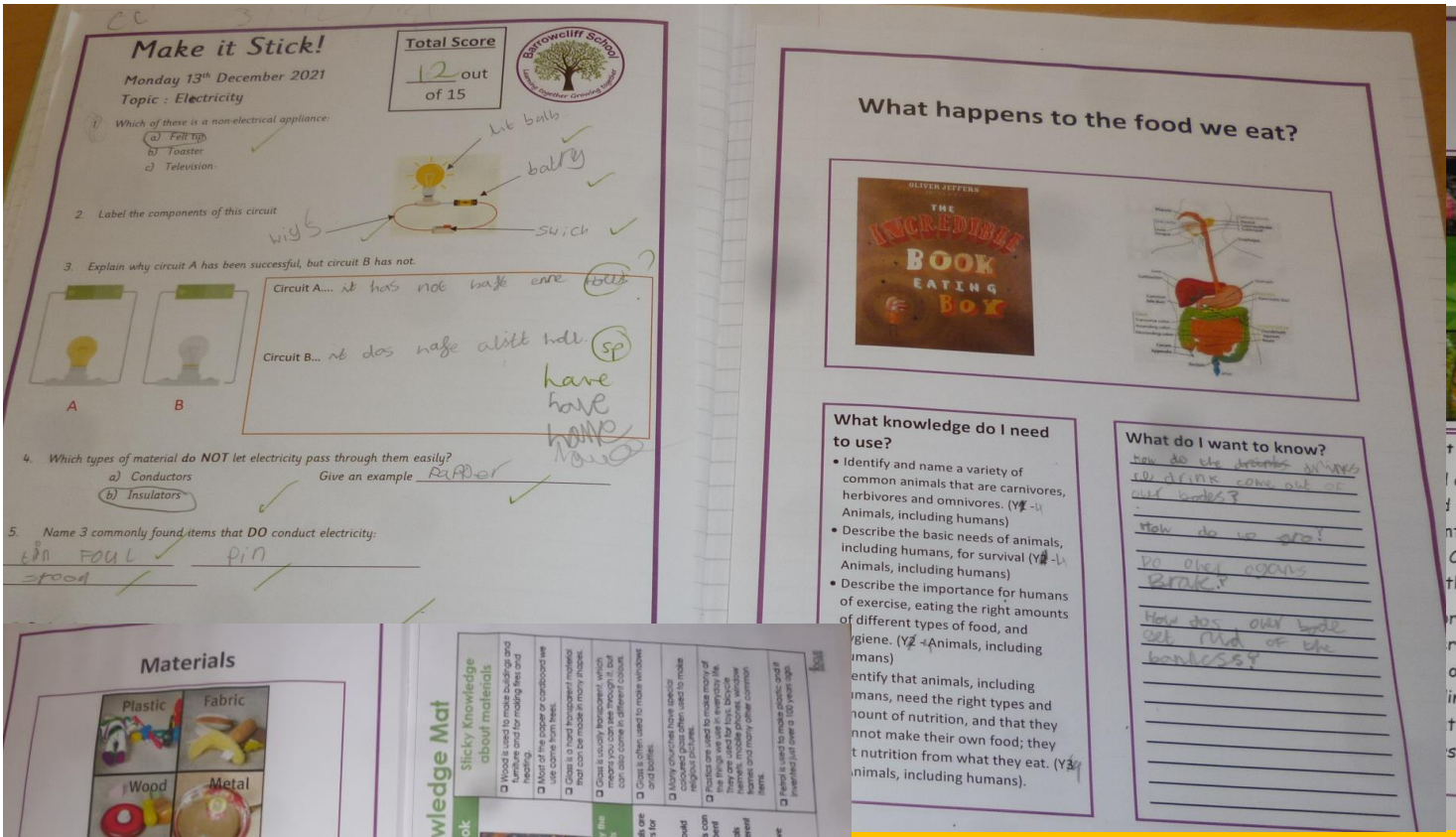
Theo Y2

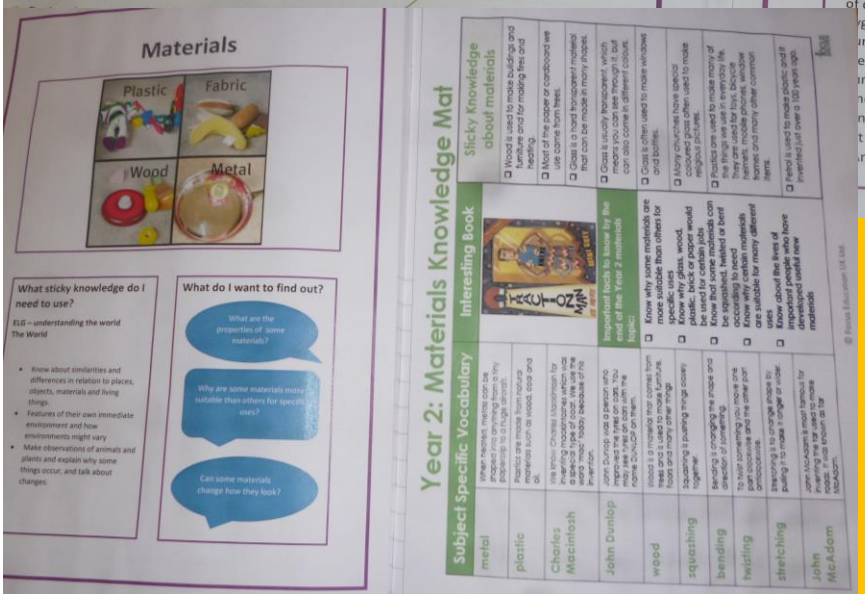
I like being a scientist, carrying out experiments

Eryk Y6

IMPACT: The Vision statement reflects Barrowcliff's aspirations for Science in school. The strategic decisions are made by the pupils and the staff are embedded in the school community.

# To adopt a range of approaches for monitoring science so it is consistent throughout the school.







Action: The Science Books now have a Title page with the Big Question with children asking their own questions about the Topic, Knowledge Mat for each topic and 'Make it Stick' questions at the end of every topic.


Book Scrutiny

Subject : Science

Date: 7.10.21 Leaders involved: J Callaghan, L Brazier

| KS1 Books | Lower KS2 Books | Upper KS2 Books |
|---|---|---|
| ar 2 Class 4<br>Year 1/2<br>oks present – they | Year 3 & 4 Classes<br>S&6<br>Year 4 & 5 Class 7 | Year 5 Class 8<br>Year 6 Classes 9 and 10 |

Book Scrutiny

Subject : Science

Date: 16 December 2021 Leaders involved: J Callaghan

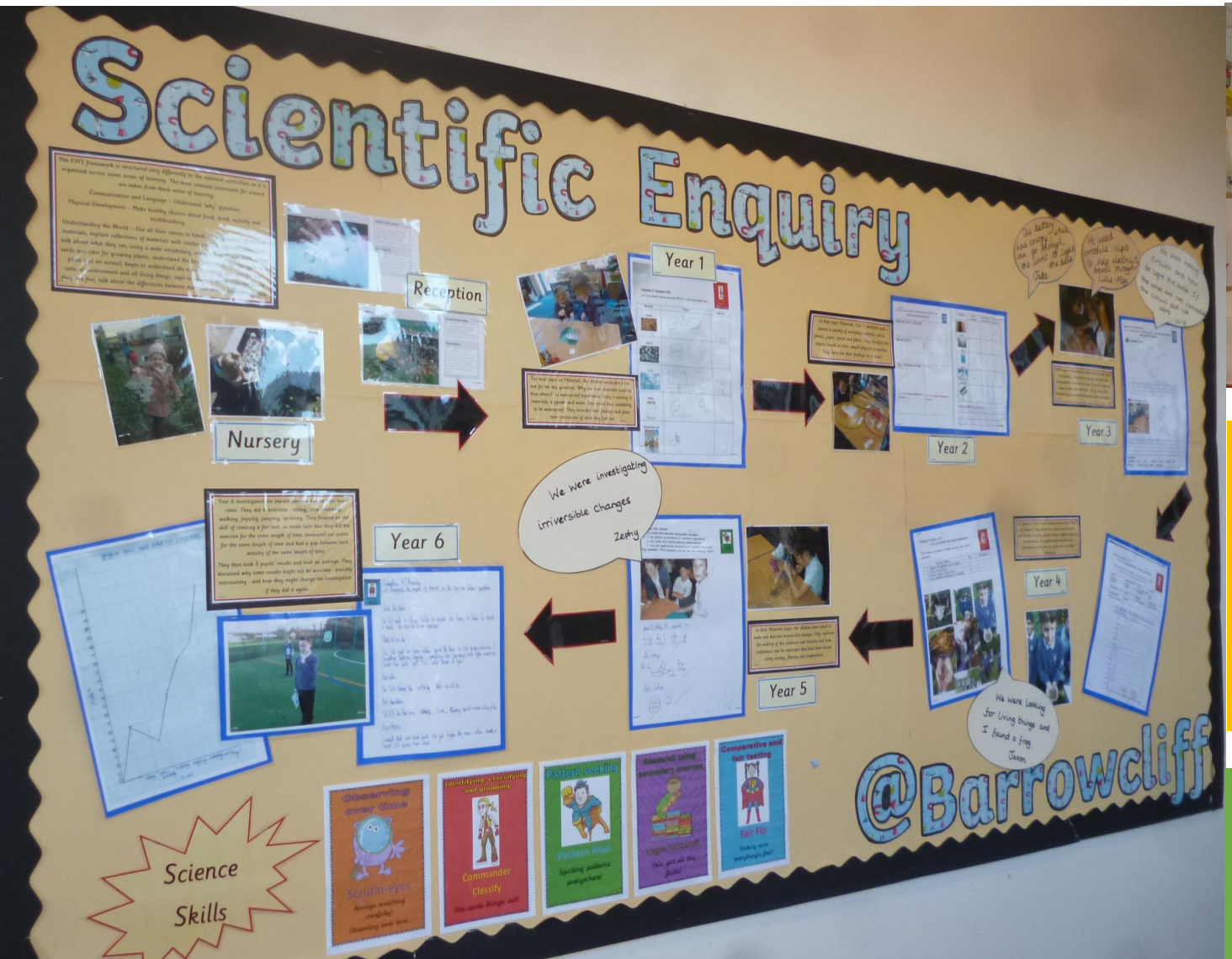
| KS1 Books | Lower KS2 Books | Upper KS2 Books |
|---|---|---|
| Year 1 Class 2<br>Year 1 /2 Class 3<br>Year 2 Class 4 | Year 3 & 4 Classes<br>S&6<br>Year 4 & 5 Class 7 | Year 5 Class 8<br>Year 6 Classes 9 and 10 |

| Common Themes | Actions |
|---|---|
| 'Make it Stick' consistent throughout all year group books.<br><br>Enquiry 'Super Hero' on all learning objectives from all year groups.<br><br>Photographic evidence in all books of science experiments and research. | **Ensure these are stuck in for use throughout the Topic period.**<br>**Consistent throughout – with the coloured Hero, it's instant recognition of which Enquiry Type.**<br>**SL to collate all science photographs from staff for display and evidence.** |
| **Future Leadership Focus** | |

IMPACT: The monitoring of the teaching and learning in school has established priorities for future improvements in science.

To use the full range of enquiry types so that we can ask and answer scientific questions.

Action: Classroom displays showing the Enquiry Super Hero's



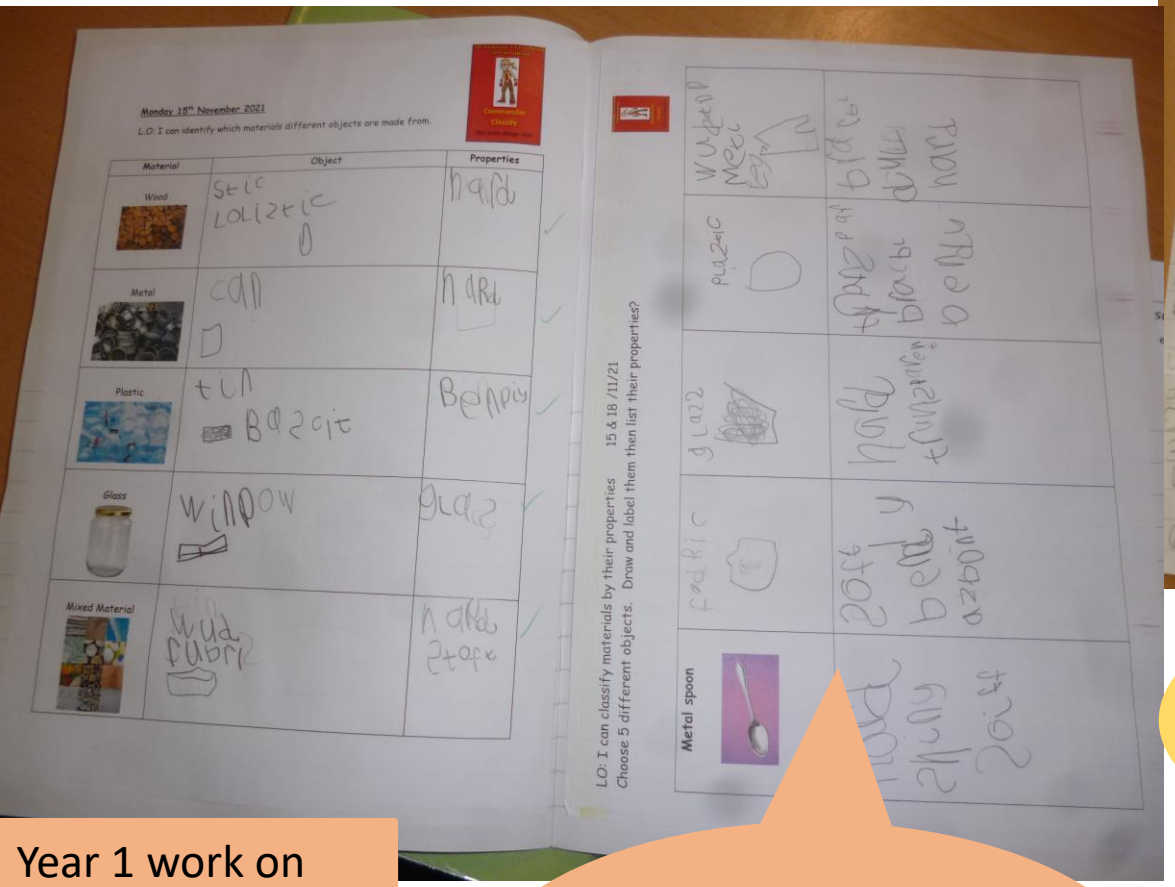




Action: A whole school display showing scientific enquiry consistently from Nursery to Year 6

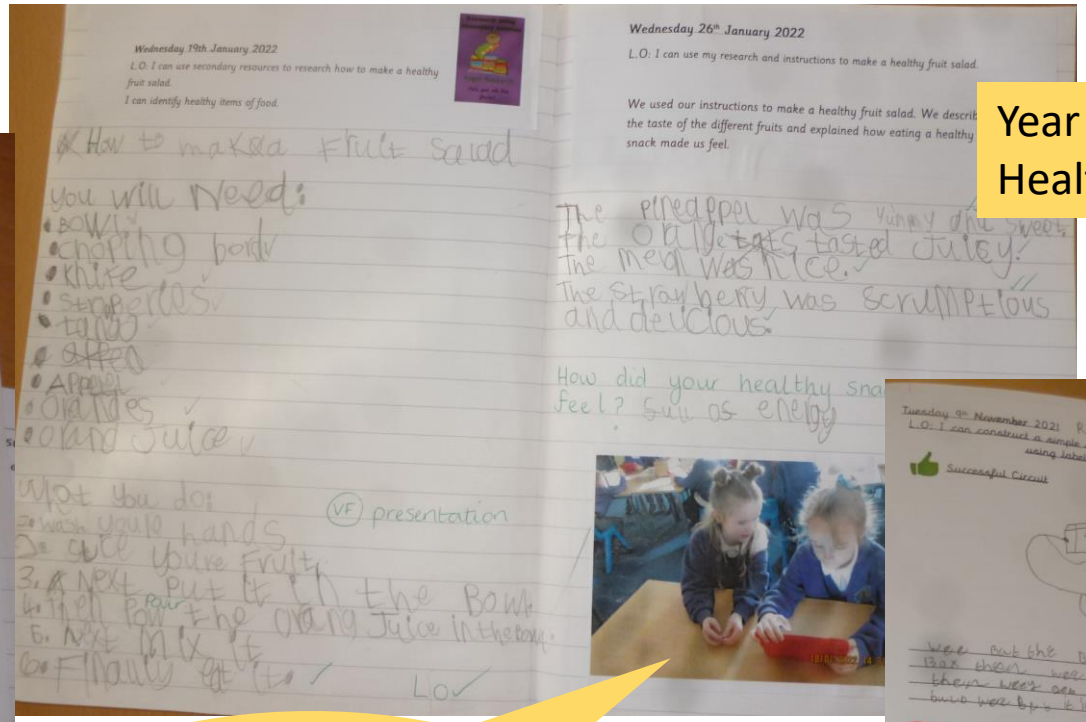
IMPACT: Scientific Enquiry is highlighted and discussed in science lessons. Children can identify the types of super hero required for their science enquiry and discuss their learning more effectively.

To use the full range of enquiry types so that we can ask and answer scientific questions.



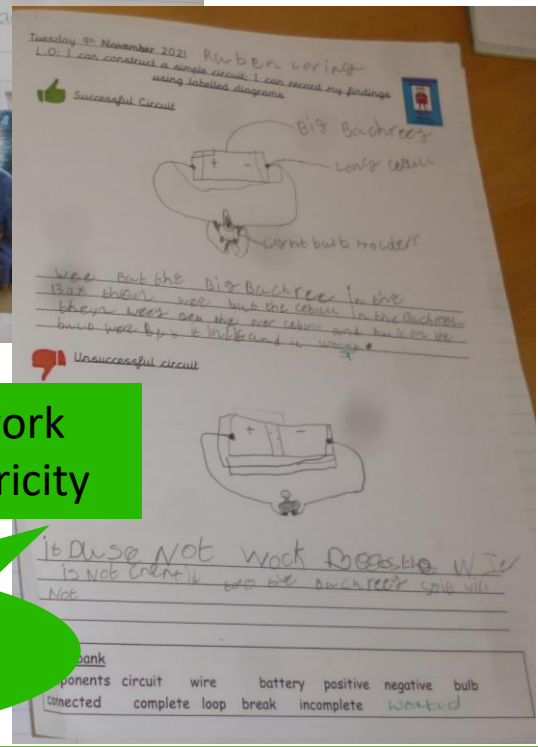

Year 1 work on Materials

We were *Commander Classifying* with the materials and sorting them into groups




Year 2 work on Healthy Living

We used *Roger Researcher* when we looked for ingredients for a fruit salad



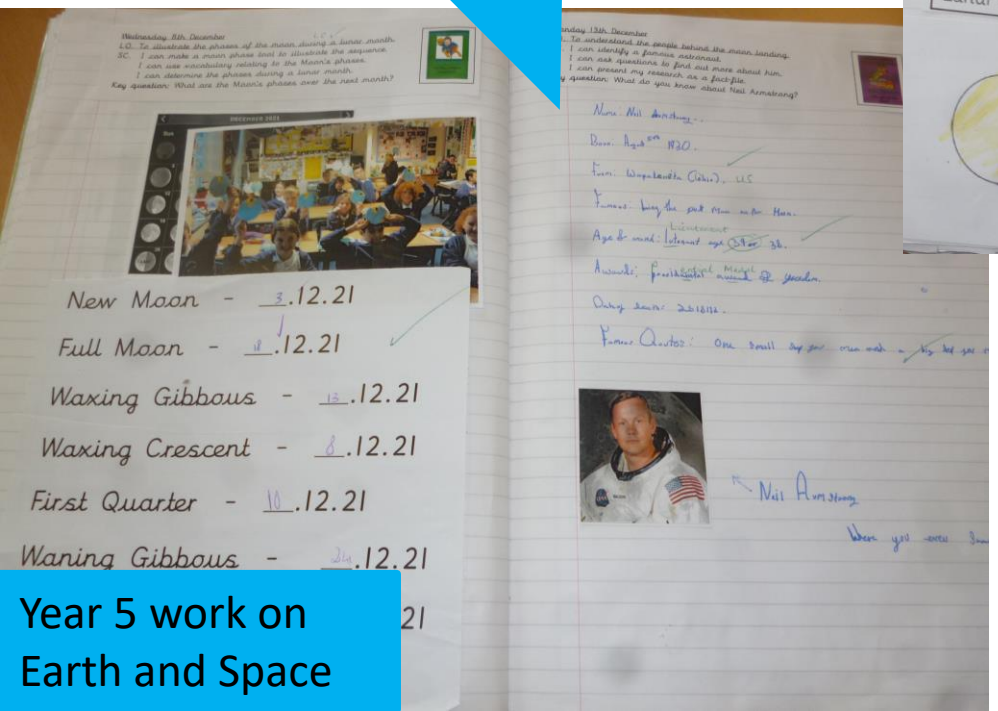

Year 3 work on Electricity

Using Fair Flo, we had to ensure fair testing

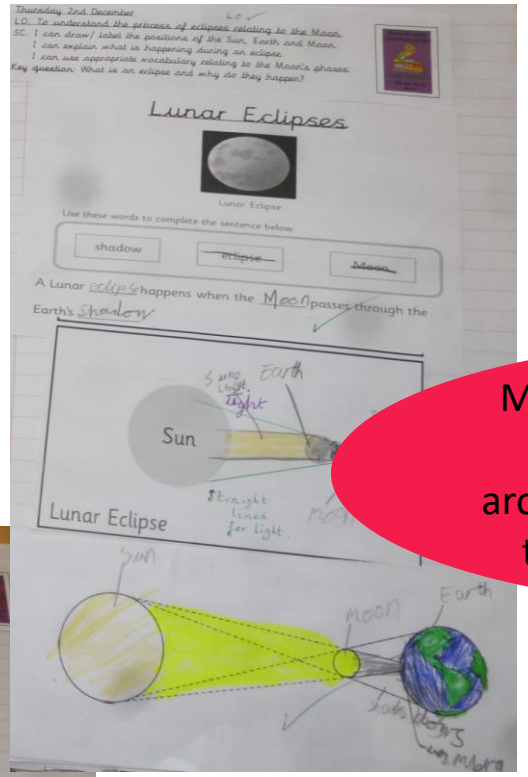
IMPACT: Evidence in children's Science Books indicate the enjoyment and depth of knowledge and understanding of science enquiry.

# To use the full range of enquiry types so that we can ask and answer scientific questions.

At this stage learning about Space, we were spotting patterns monitoring the moon phases, drawing a Lunar eclipse and researching the importance of Neil Armstrong.

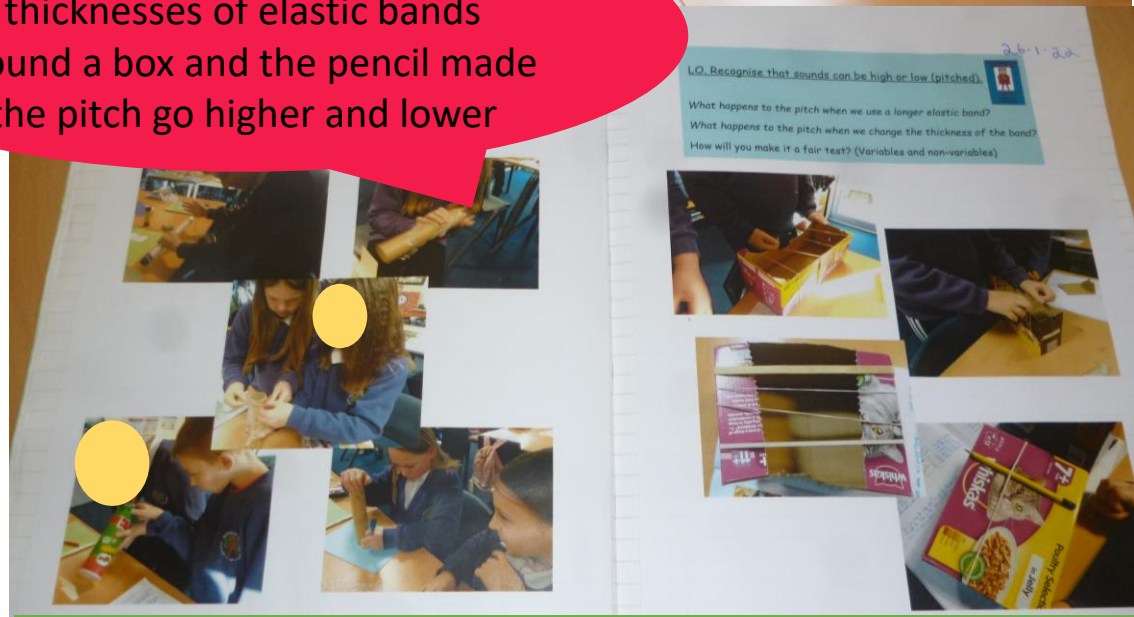



Year 5 work on Earth and Space




Year 6 children proudly talking about their work on Sound

Making a Fair test with different thicknesses of elastic bands around a box and the pencil made the pitch go higher and lower



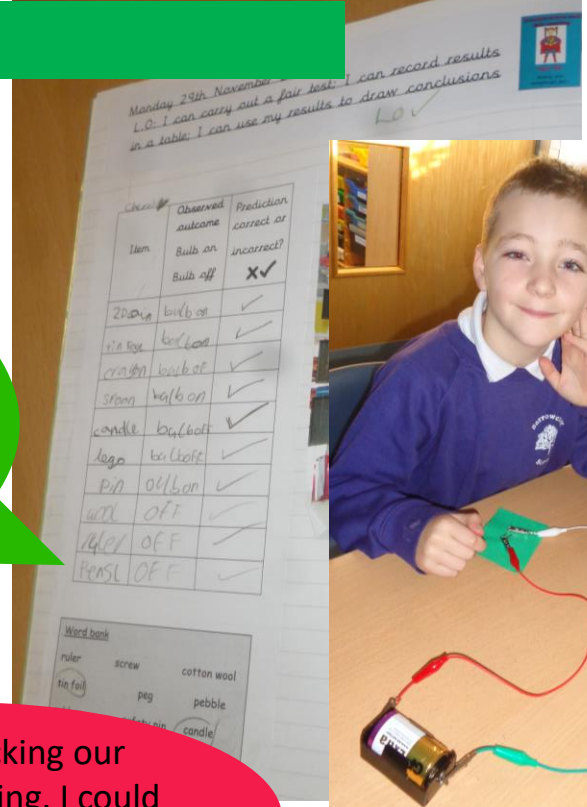

IMPACT: There is an increase in amount of practical work being carried out, developing greater understanding and independence.

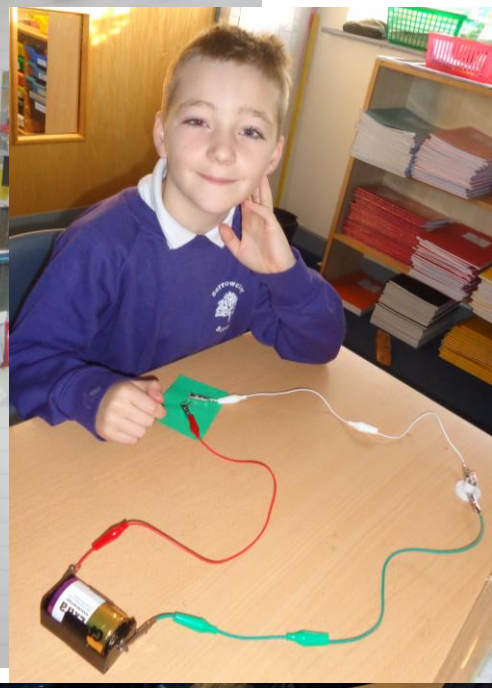
# To give children opportunities to talk about their Science experiences.

It was like magic. The clip was moving around my picture!

We used ICT to compare the rainfall and daylight over the year

I learned that the wires all needed to be connected together with the battery in a circuit for the bulb to light. We investigated which material conducted electricity and recorded the findings in a chart.





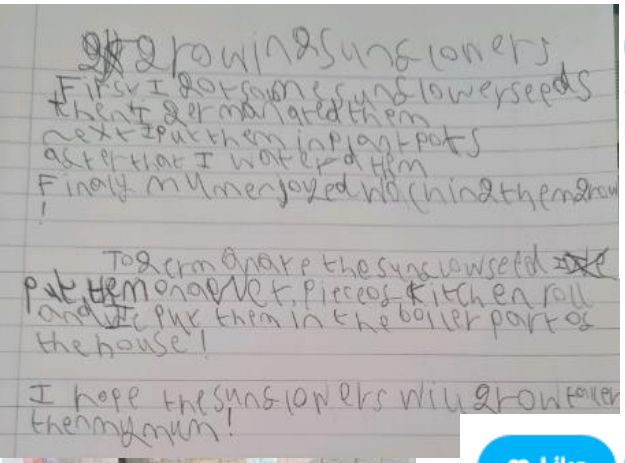
We were checking our pulse after running. I could feel that my heart was beating faster.

The staples were attracted to the magnet but we sieved out the marbles from the sand.

We safely used the knife to get the ingredients ready for our fruit salad. We leanred about healthy foods.

IMPACT: Pupil voice is used to develop our Science curriculum, through questioning of pupil's views and their attitudes to Science, supports the children's enjoyment of science and develop planning.

# To include parents in science activities at home.



Like Comment

**Mrs. Brazier** Jul 16, 2021
Teacher
These and the pictures are great Harvey, very helpful for me growing mine. Keep me updated with how tall they grow! 10 dojos!

When the flower died, we saved the seeds to plant again this year.

Like Comment

**Mrs. Brazier** Jul 16, 2021
Teacher
Hi Harvey! Wow! Your sunflower looks fantastic. It's getting really big.

**Mrs. Brazier** Jul 16, 2021
Teacher
I took your tip of putting some sunflower seeds on some damp paper towel first to them germinate. They are just to grow now in a pot outside. u!

Action: Children are encouraged to share the science projects at home through the Dojo App.


Photos of Wilf & Ellen's tree identification walk. Thanks S

Action: Children are inspired to engage with Science competitions outside of school. This promotes pride and enjoyment in science.



IMPACT: Children are using their investigative skills to find out about Science capital at home through research, experiments and recording their work. A good deal of participation.

# To provide and facilitate learning for others to keep up to date with new developments.



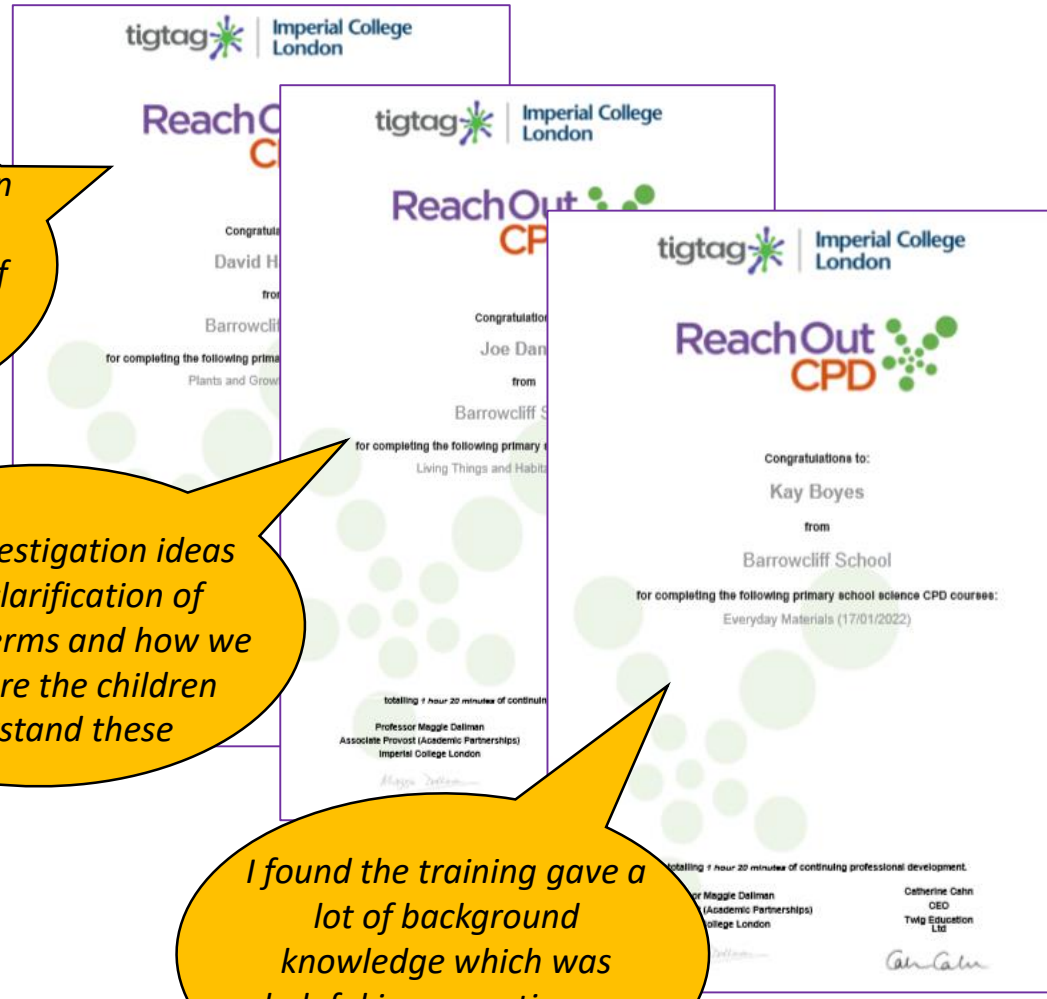





*Subject Leader keeping up with research into high-quality science curriculums, assessment and pedagogy to inform staff.*

*They were great for my own subject knowledge of the topic, and also for plenty of information that could be shared in lessons.*

*Useful investigation ideas Useful clarification of scientific terms and how we can ensure the children understand these*




*I found the training gave a lot of background knowledge which was helpful in supporting my subject knowledge*

IMPACT: Good resource that teachers can look up and use at their own discretion.

# To have more science experiences outdoors, learning through practical resources.

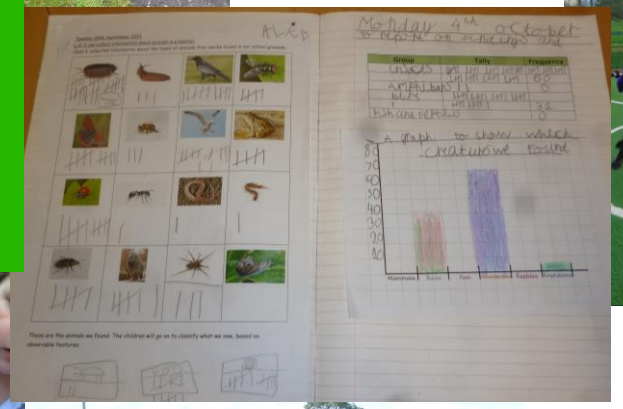
08/12/2021

Lupin was exploring the water trays outside, where sheets of ice had formed overnight "Gosh this is really cold. Water needs cold to make it into ice" he said He then looked really closely at the ice sheet "It's got lots of bubbles in it"DW What are they do you think? "I'm not sure, Do you know why they happened? DW It's the air that has been trapped in the ice "It makes a lovely pattern" he said

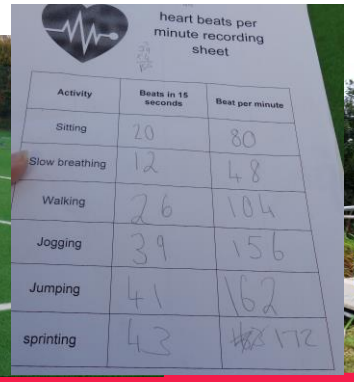
Ofsted
raising standards
improving lives

EYFS: 'They also enjoy an attractive environment to play and learn in. Staff look for opportunities to use the children's play to teach new things, especially number and science.' 22 June 2021

Year 3 using the Pond Area to investigate Living Things and Habitats and recording the results in form of a tally chart and graph.



Year 5 work on Earth and Space monitoring the sun's movements in the day.




Year 6 children investigating the impact on the body after exercise

Action: Pond development in the school grounds

IMPACT: Outside learning makes a multi-sensory experience, encouraging discussions and developing skills, knowledge and understanding in a meaningful context.

# To make links to organisations to enhance enrichment opportunities.


Class _____

| Carving | Number of Votes |
|---|---|
| Butterfly - Brown | |
| Butterfly - Blue | |
| Bumble Bee | |
| Ladybird | |
| Grasshopper | |
| Cricket | |
| Woodpecker | |
| Owl | |
| Squirrel | |
| Snail | |

Barrowcliff School got involved in the Ash Grove Wildflower Meadow project

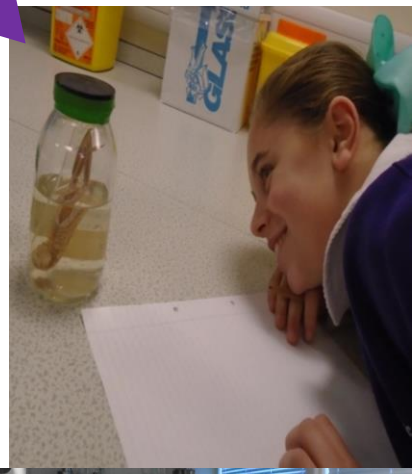
We could choose what sculptures we wanted for the wild garden area


During lockdown periods, there has been less opportunities to engage in enrichment activities.

We met a real Scientist who showed us around the lab.

## Visit to Hull University

Year 6: Working in the lab at Hull University.



IMPACT: School is continuing to develop links to enhance enrichment opportunities post Covid.

# To PROVIDE A SCIENCE CLUB TO DEVELOP AND ENHANCE SCIENCE LEARNING

We learnt how to grow vegetables and we made soup from the carrots we planted.

Our School Cook showed us how to cook in the school kitchen.

IMPACT: Children enjoyed the hands-on learning, problem solving and creativity. Their understanding of Health and Safety along with science concepts were stimulated.