Hipsburn Primary School

Celebrating our
Primary Science Quality Mark
journey!

As a small, rural primary school with mixed year group classes, we wanted to utilise our locality and the unique opportunities it can offer pupils to help develop a love of science and a curiosity about the world around them.
By linking the development of science to our whole-school values -*resourcefulness, reflectiveness, respect, relationships and resilience*- we have worked to ensure that our science provision meets the needs of our pupils, whether this has been in school or during home-learning.

Pupil Voice

"I want to learn about how stuff works" Year 1

"You learn stuff that you don't know- nobody knows everything" Reception

"We get to know new things, a scientist is a very clever person" Year 5

Our vision for science

Every class did a whole-class pupil voice session to discuss what they thought made science good. Children know that our science principles have been created by taking into account their views.

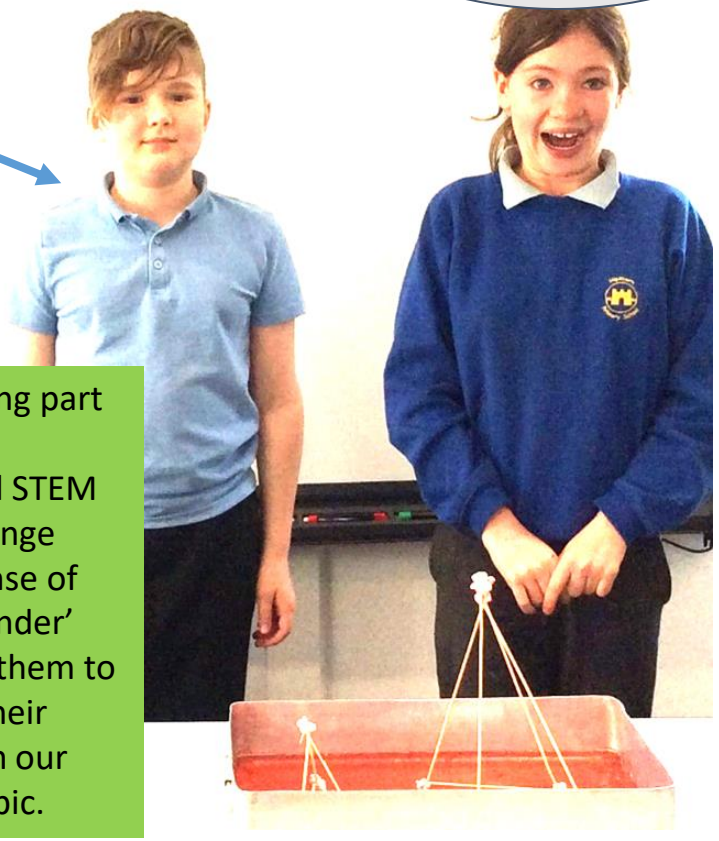
Children use accurate, scientific vocabulary as a result of enquiry based learning and teaching key topic vocabulary.

Year 1 and 2 on a beach day,
*"The female bird is **camouflaged** but the male is all colourful because the female has to sit on the nest so needs to blend in with the woods"*

Using drama during science week to demonstrate the life cycle of a bumble bee! After the session, their teacher found that the children could very accurately recall their learning and apply it e.g. when moving on to learn about the life cycle of a frog.

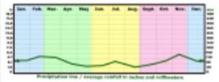
STEM challenge- Year 5 and 6 testing their 'earthquake proof' structures (made from cocktail sticks and marshmallows) by shaking them in jelly.
Children learned a lot about science as a STEM subject, linking to careers such as engineering.

Year 5/6 taking part in the virtual National Grid STEM Power Challenge created a sense of 'awe and wonder' and allowed them to apply all of their learning from our electricity topic.



Enquiry-based learning

Enquiry types **Today I am:**

Observing over time  ☐	Pattern seeking  ☐	 Fair testing ☐
Identifying/classifying/grouping  ☐	Researching using secondary sources  ☐	

Children in KS2 use enquiry labels to identify the type of enquiry they are doing in each science lesson. They can now much more confidently identify the skill they are using which has helped them to plan their own enquiries.

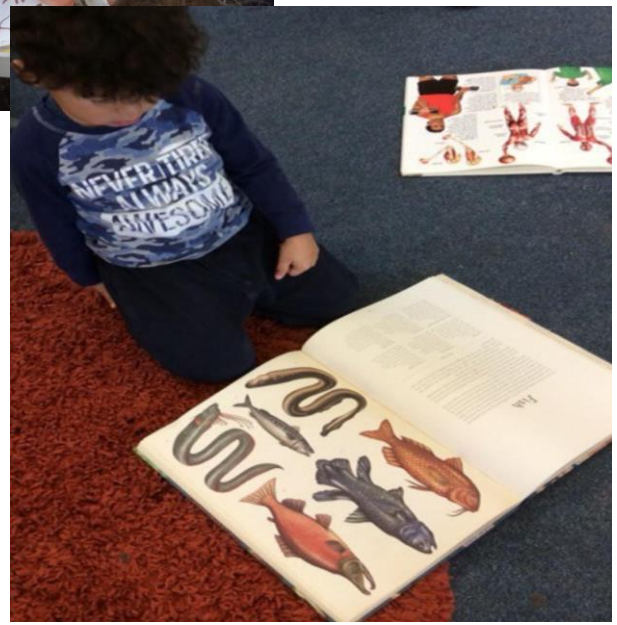
From our Early Years up to Year 6, we facilitate child-led enquiries.

Reception responded to the stem question- *'How can we save our animals?'* after they had been frozen in different containers.
They came up with super ideas to melt the ice- these included warm water, chiselling and salt- all of which they were then supported to try which extended their learning outcomes.

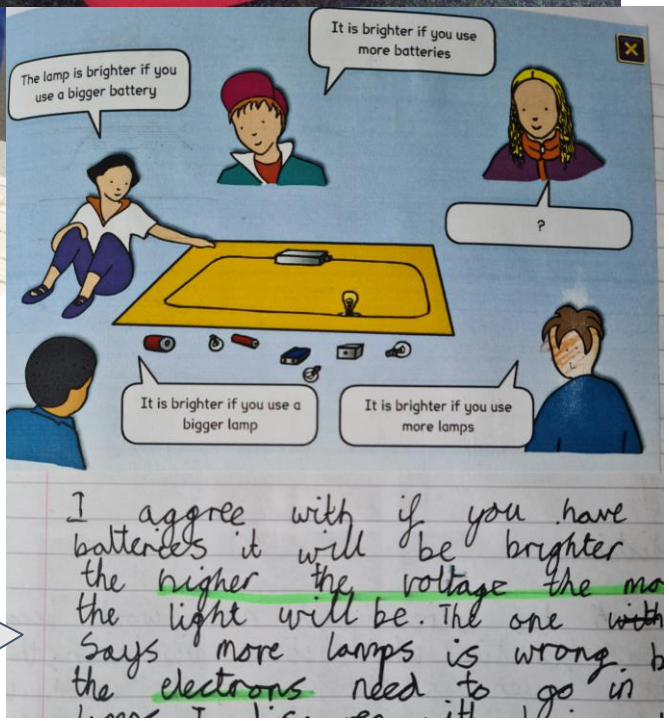
EYFS observation:

As mini meteorologists we carried out our own experiment to find out more about the weather using bubbles. We found that when we blow bubbles in the classroom they float up to begin with and then float down to the floor. When we blew bubbles outside they float away. We used this to find out which way the wind was blowing! This also led to lots of scientific questions such as "does the sun make them pop?", "what would happen to the bubbles if it rains?" and "what's the biggest bubble we can make?"

The library has been updated with new books for all science topics and age ranges which allows children to be more engaged and lead their own learning.



Children are engaged in practical activities to learn more and remember more! There are high quality discussions and children naturally link back to previous learning.



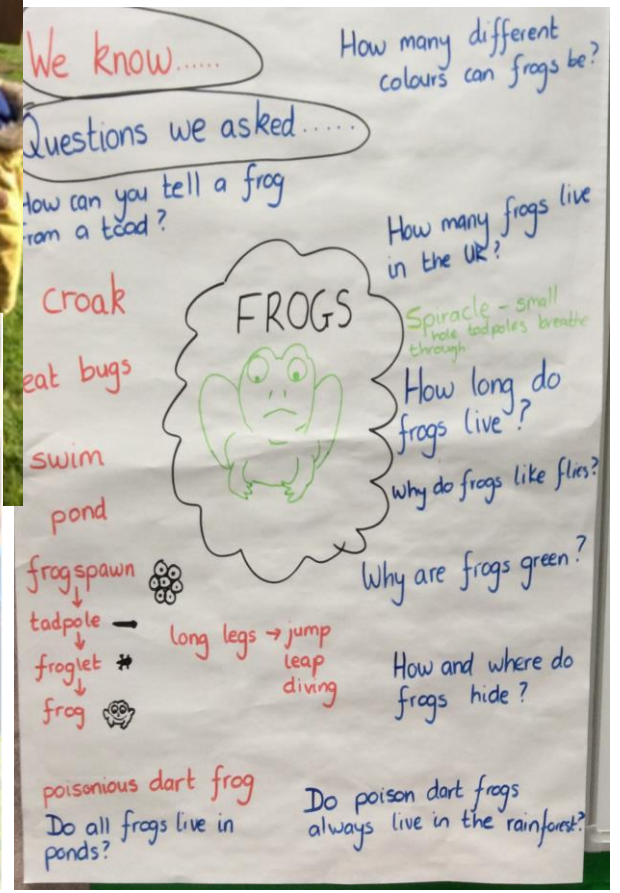
Year 5 and 6 tackling common misconceptions through concept cartoons.

Outdoors- Our School Grounds

The school pond has been cleared and made accessible, with a wonderful new sign kindly created by one of our parents.
The children love to go pond dipping because there is so much pond life to explore! Children are very engaged; they talk to parents at home and often find additional information e.g. about a rare newt in our pond. This gives a real life context to the animals and plants they learn about and enriches the learning experience.

. Year 3 and 4 have been using our gardening area for practical learning as part of their plants topic.

EYFS observation:
“Today we received a letter from Fiona the Frog inviting us to visit her pond on our school field. At the pond we used a fishing net to scoop up some water...at first it look very muddy but then we saw something wiggle...it was a big frog! We'd caught a newt too. On closer inspection we could see the frogs slimy skin, webbed feet and powerful legs.”



Children take part in focused learning sessions that utilise our amazing locality – including our pond, woodland areas and proximity to the beach. A hedgehog rescue was undertaken after children in KS1 found baby hedgehog. This then became the learning focus for consequent science lessons.

Outdoors (2)- Beach Days

Every half term, each class has a beach day, where we walk to our local beach. Each trip is planned with a specific focus and link, where appropriate, to curriculum, e.g. classification, habitats, adaptation.

This makes science inclusive for all and teachers are also able to observe and question pupils when they are applying their learning.

The annual Year 6-7 secondary transition beach day that we take part in with other local schools was not able to go ahead this year but in previous years has provided enriched learning and wellbeing opportunities.

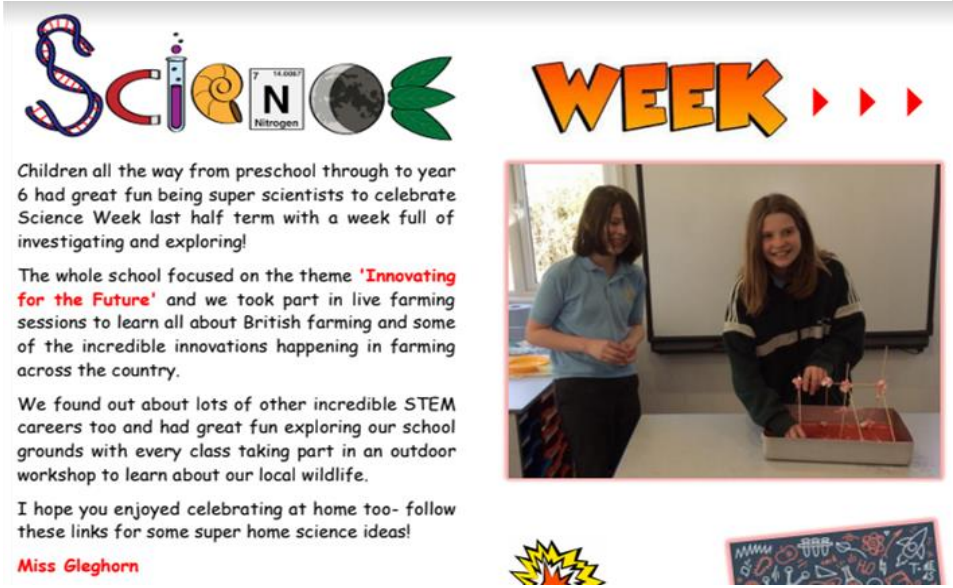
Wider opportunities (1)

Immersing children in science as part of extracurricular and home activities has created an ethos of curiosity being valued.

Y1/2 have been for a visit to a local zoo as part of their learning about animal habitats.

"I enjoyed seeing the different animals and learning lots of interesting facts. Did you know that a tortoise can live up to a 100? They can live as long as a human."

The trip really brought the children's learning to life so that they could make links to what they already knew and have a solid foundation for new understanding.



Children all the way from preschool through to year 6 had great fun being super scientists to celebrate Science Week last half term with a week full of investigating and exploring!

The whole school focused on the theme **'Innovating for the Future'** and we took part in live farming sessions to learn all about British farming and some of the incredible innovations happening in farming across the country.

We found out about lots of other incredible STEM careers too and had great fun exploring our school grounds with every class taking part in an outdoor workshop to learn about our local wildlife.

I hope you enjoyed celebrating at home too- follow these links for some super home science ideas!

Miss Gleghorn

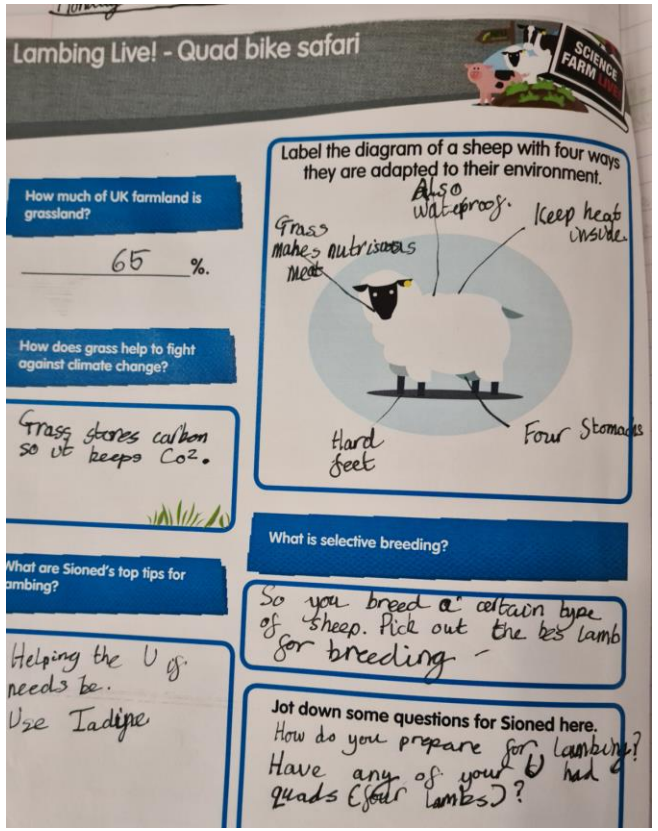
"I had lunch in granny's allotment"

"I meditated in the garden"

"I fed a swan and cygnet at the river"

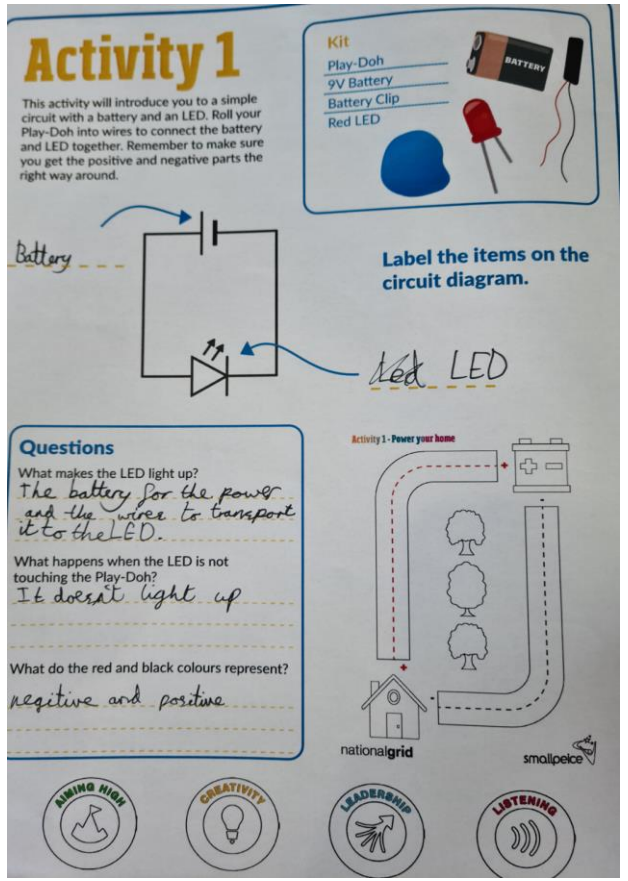
Wider opportunities (2)- Virtual

Due to not being able to have trips or visitors, we have used virtual STEM Events: National Grid Power Challenge with live chat function linked to activities; Farm Live events (linked well as we are a farming community); interview with biologist; and a Mars Day live event.



National Grid Power Challenge:

Children had different challenges to complete as part of a national live event which we streamed in the classroom.
Children enjoyed showing off their learning about electricity from that term.



Virtual events have been brilliant to give children opportunities to see science in context, learn about science careers and contribute to developing personal aspirations.

Farming Live – children shared personal knowledge, and learned new things linked to home lives.

"Electricity is my favourite topic- I loved learning about it because I find it really interesting to make the circuits and I found out about my electricity at home." - Year 5 boy

Super home learning!

Whether in school or at home, Hipsburn Primary School has some super scientists- here are just a few great science activities from home learning!