

A wordle created as part of a staff meeting to help us pick our science principals.

practical

curiosity

meaningful

collaborative

engagement

confidence

enthusiasm

inquisitive

equity

teamwork

experiential

relevant

fun

observations

it's ok we don't know

risk-taking

kindle curiosity

practical activities

inspire curiosity

hands-on

real-life

resilience

experiment

knowledge

excitement

vocabulary

resiliency-building

cross-curricular links

open questions

accessible

explorative

questions

collaboration

hands-on

investigations

getting things wrong

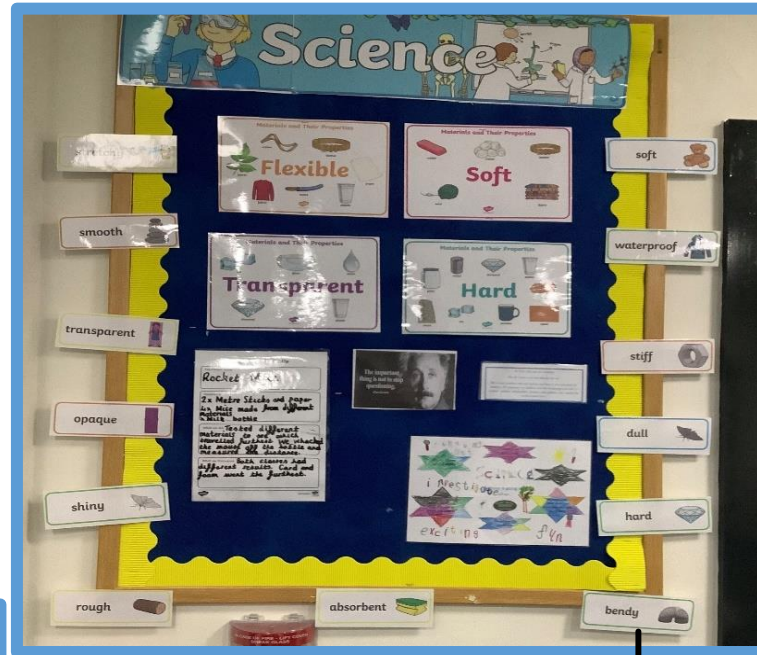
real-life application

observation

Evidence of teacher and pupil voice which helped us to put together our final set of science principles.

[illegible]

The vision and principles are displayed in every classroom.



By displaying our vision and principles poster in all classrooms, teachers and children can refer to the science principles within all science lessons which positively impacts the status of science within our school.

Science Principles display board, visible for all children, visitors and staff.



The impact of displaying our science principles and showing examples of the principles in action in the form of the children's work, is that science is celebrated and valued across the school.

SLA There is a clear vision for science that is well established and consistently implemented through principles for teaching and learning which are regularly reviewed by the whole school community.

Pre PSMQ as a school we used the outdoor area to enhance learning. We had hands on practical learning and would make our lessons fun and exciting.

The children from each year group had a talk from our **VERY** knowledgeable school gardener and took part in planting different edible plants in the allotment. Don has won a Gold medal at Chelsea Flower Show for 10 years in a row!



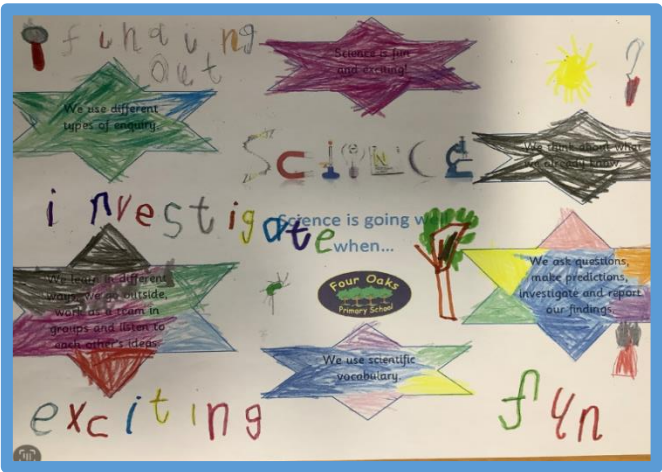
Year 6 children dissecting a lambs heart to support their learning during their topic Animals, including humans.

Pre PSQM	During PSQM	Impact
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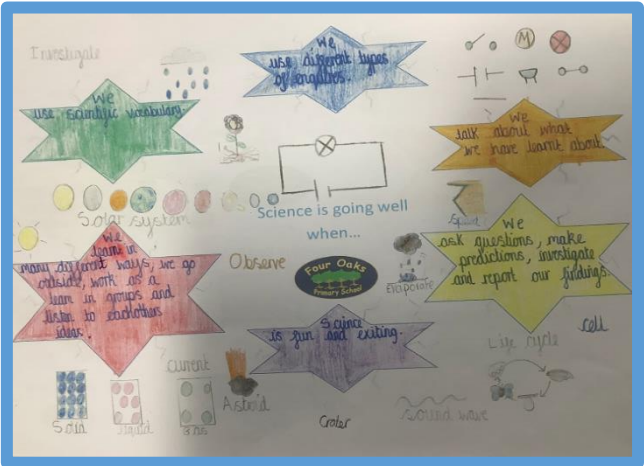
A poster competition was held with winners from KS1 and KS2. The science ambassadors presented the winners with their prize and the posters are displayed in the classrooms for the teachers and pupils to refer to during lessons.

The impact of this is the children understand the school's vision and principles. The teachers and children can refer to the principles in lessons. This ensures that good practice continues and that the children are receiving fun practical lessons which cover all the knowledge and working scientifically skills required.

This allowed the children to use the outdoor area in their learning and they continue to use this area to enhance their learning.



The impact of this is that the children enjoy fun hands on lessons and it creates awe and wonder.



SLB There is strategic support for subject leadership which is well established and reciprocal and includes: sustained professional learning for subject leader, including engagement with the primary science education community; the subject leader(s) contributing to whole school strategic planning.

Pre PSQM

During PSQM

Impact

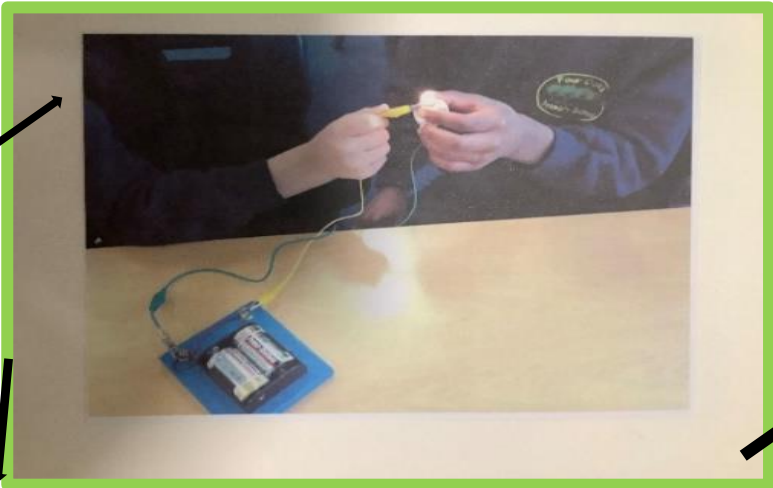
Pre PSQM the subject leader received support from a specialist consultant with monitoring and planning the recovery curriculum. The subject leader has provided the staff with progression documents and vocabulary documents and supported staff with CPD and enrichment activities.

The subject leader has produced progression documents for each unit of work for every year group including Early Years.

The impact of this is the correct learning objectives are covered in each year group and there is progression.



Year 4 made a simple circuit.



Year 6 investigated how you could change the brightness of a bulb.

The impact of the recovery curriculum is that any gaps in learning, as a result of the pandemic, have been addressed.

Year 6 learnt about space as part of the recovery curriculum.

During PSQM the subject leader has continued to support staff and new staff. The subject leader has given support with providing CPD, floor book training, updating vocabulary and progression documents to support staff and organised enrichment opportunities.

I have received support from a specialist science consultant who has helped us as a school team to create medium term plans, recovery curriculum, monitoring, knowledge organisers and challenge grids. This has greatly helped me to feel more confident that all types of enquiry are being taught throughout the school and that monitoring is of a high standard. – Subject Leader.

Recovery curriculum

	(Catch up Y1)		
YEAR 3	Animals, including humans (Y2 Catch up)	Forces and magnets	Animals, including humans (Nutrition and how we move)
	Rocks	Light (Shadows)	Plants (Parts of flowers and life cycle)
YEAR 4	Forces and magnets (Y3 CATCH UP)	Sound	Living things and their habitats (Changes in habitat and to recognise that living things can be grouped in different ways)
	States of matter	Electricity (Construct simple circuits)	Animals, including humans (Digestive system and food chains)
YEAR 5	Earth and space	Sound (Y4 CATCH UP)	Living things and their habitats
	Properties and changes of materials	Forces	Life cycles and reproduction

← This is the recovery curriculum which the subject leader planned with the support of a science consultant.

I liked learning about space: we learnt lots. I know the moon orbits around the Earth every 28 days. Year 6 pupil

SLB There is strategic support for subject leadership which is well established and reciprocal and includes: sustained professional learning for subject leader, including engagement with the primary science education community; the subject leader(s) contributing to whole school strategic planning.

Pre PSQM


During PSQM

Impact

The subject leader worked alongside a science consultant to produce medium term plans which also include the children’s prior learning, future learning and common misconceptions.

Staff meeting and teacher voice feedback

Science is taught weekly throughout the year with extra time allocated during enrichment activities such as science week this has taken place for many years with the **subject leader supporting the staff in the planning of this.**

	Science MTP - Spring 1	Year 2	Topic	Animals including humans
	*Notice that animals, including humans, have offspring which grow into adults.			
	*Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).			
	*Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.			

Prior Learning	Future Learning
<ul style="list-style-type: none">Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)	<ul style="list-style-type: none">Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. (Y3 - Animals, including humans)Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats)Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)Recognise the impact of diet, exercise, drugs and lifestyle on the way their <u>bodies</u> function. (Y6 - Animals, including humans)

I have been impressed with how the subject leader has led science. We meet regularly and she informs me of the progress within science and our next steps – **Assistant Headteacher responsible for the curriculum**

I have found the **subject leader’s staff meetings** very informative and I have particularly enjoyed using the **Twig Scientist Website** that was recommended as part of a staff meeting. This has encouraged discussions amongst our children about science in the news.– **Y5 Teacher**

I have followed the medium term plans and ASE documents to support me with my teaching after recommendations from the **subject leader**. This has increased my confidence. – **Year 3 ECT Teacher.**



The impact of investing in specialist consultant support is that the subject leader is confident that all the correct knowledge and skills are being taught in each year group that teachers are aware of prior knowledge, common misconceptions and increased confidence in delivery.

The impact of this is the teacher feel supported and the children enjoy extra science activities which create awe and wonder.

SLC There is a rigorous monitoring and improvement cycle using evidence and views from all stakeholders and sources to shape development in science.

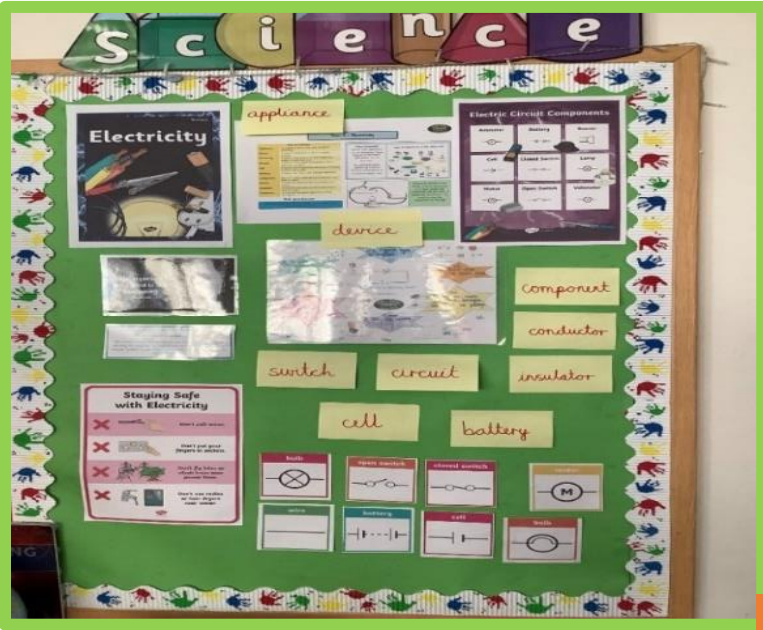
Pre PSQM

During PSQM

Impact

Pre PSQM there was a rigorous monitoring system in place such as learning walks, book monitoring and pupil voice and monitoring of vocabulary and displays.

During PSQM, SL has continued to monitor activities and this has impacted on the action plan. The SL has supported ECTs and new staff, has given feedback for next steps after book scrutinies and organised CPD training for ‘Discovery Dog’ and ‘Post-It Planning’. Demonstration lessons were also provided to support teachers with ideas for teaching and assessment strategies.



Science displays show the learning taking place and the vocabulary.



The subject leader has helped me to plan by addressing misconceptions, modelled how to use floor books and shared resources to ensure that I am pitching my lessons correctly. I understand the progression documents and the correct vocabulary that should be taught. – Year 3 Teacher and ECT

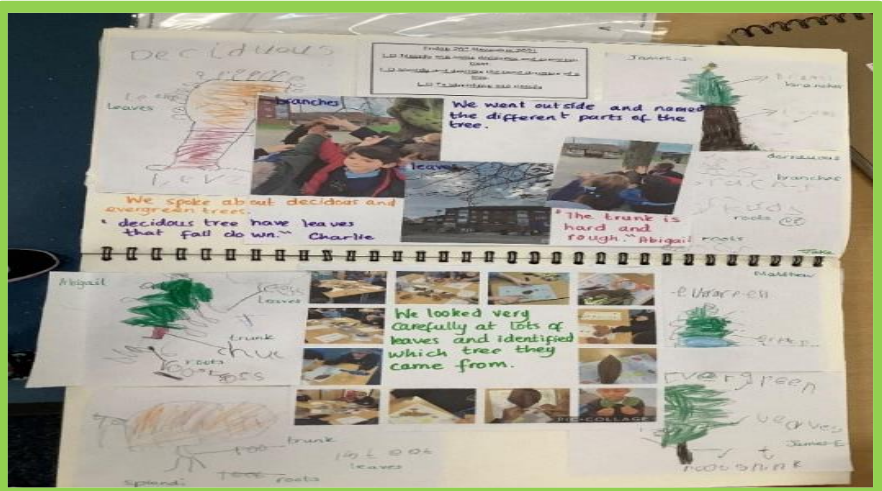
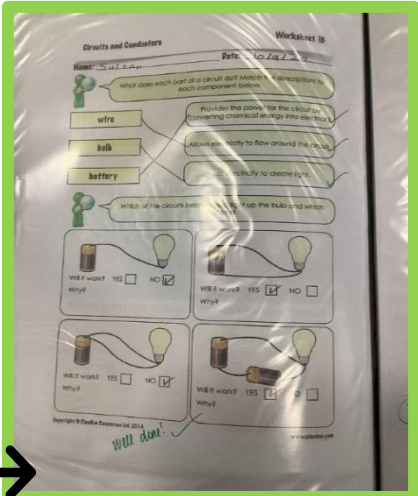
The pictures below show books before and after monitoring. Monitoring showed that there were too many worksheets being used. We have now been using floor books for a number of years and display our work in more creative ways.

Feed back from a learning walk



“Vocabulary is a real strength across the school. All classrooms have vocabulary displays. The relevant vocabulary was used by both pupils and staff in all lessons. Teaching assistants also excelled in this area and offered great support to small groups of children.” Primarily Science, science consultant.

The impact of using floor books has been that our books reflect the practical hands on science lessons that are happening in our school. The children enjoy working in their groups and take real pride in their floor books.



SLC There is a rigorous monitoring and improvement cycle using evidence and views from all stakeholders and sources to shape development in science.

Pre PSQM

During PSQM

Impact

A quote from a Y2 pupil during a pupil voice.



I liked it when we walked around school looking for things that were dead or alive, or were never alive. We found a family of snails. A habitat is a place where an animal lives. It is a place where it can get food— Y2 Pupil

The impact is that I can see children are retaining knowledge and learning outdoors is being used appropriately to enrich the children’s learning.

Example of moderation of planning.



MONITORING: [Summer].

Planning monitoring (✓ when checked.)

Term: Summer 2

	Ac	N	R	1	2	3	4	5	6
LTP	✓	✓	✓	✓	✓	✓	✓	✓	✓
MTP	✓	✓	✓	✓	✓	✓	✓	✓	✓
Curriculum Maps	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year 1 –Year 6 have been following the new planning including the recovery curriculum that has been planned alongside the science consultant Eleanor Atkinson from primarily science.									

Planning is monitored every half term. This ensures the correct objectives are being taught. Learning walks take place and show staff are delivering hands-on, practical lessons matched to the agreed objectives.

Findings from lesson observations carried out by subject leader.



“Most lessons observed were hands on and investigative. Pupils worked together to find answers to questions. The pupils were animated excited and focused as a result of these lessons.” Subject leader

Findings from book monitoring carried out by subject leader.

Y2	Really impressed with Y2 books. I loved reading all the pupil thoughts and ideas. Lots of individual pupil’s comments Use of Discovery Dog Predictions Individual ideas / Lots of visual practical learning going on Good vocabulary and scientific vocab regularly corrected.	<ul style="list-style-type: none">• Even better if Lined post its are used to support writing.• “Molecules” is too difficult at this age. Check the vocab listed on MTPs
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The impact of regular book monitoring followed by year group feedback is so staff are aware of what they are doing well and of areas to develop even further. The teacher implemented these next steps.

A report of the key findings of all of the Subject Leader’s monitoring which was also passed on to senior leaders.



The following points are the key findings from monitoring that has taken place this term.

Strengths

- The children are enjoying the lessons they are being taught.
- The children are remembering key information.
- The children are successfully being taught the recovery curriculum so gaps in learning are being filled.
- Knowledge organisers and key question grids are being used by the children to consolidate their learning.
- There is lots of evidence of working scientifically within the children’s big books and lots of evidence of children’s individual comments which show the individual children’s progression.

Key Priorities for inclusion in the Subject Leader Action Plan

- To ensure the teacher including new members of staff are supported when implementing the planning for the next academic year.
- To plan more trips and enrichment activities.

As a result of monitoring, my next steps included continuing to provide enrichment opportunities and to support new staff. Which has been done.

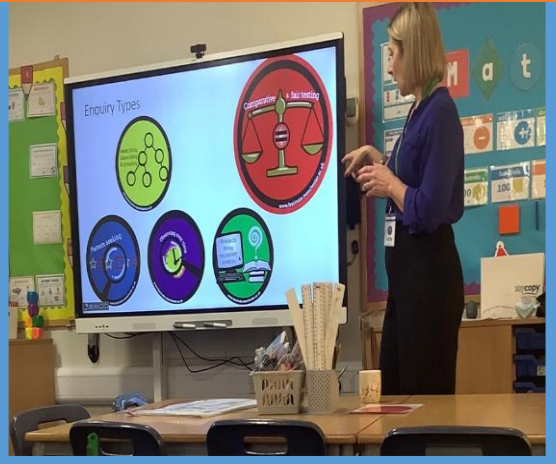
TA Science teaching is strengthened and developed through engagement with professional development. There is provision and signposting of a sustained programme of internal or external professional development and support with which staff engage.

Findings from book monitoring that there was a misunderstanding of 'Post-It Note Planning' and 'Discovery Dog' planning throughout the school.



- Correct use of variables in Post It Plan (Change one thing, Measure something, keep ALL other variables the same). Common misunderstanding across the school. Would it help staff to have a refresher on how to use Post it Plan and Discovery Dog planning boards?

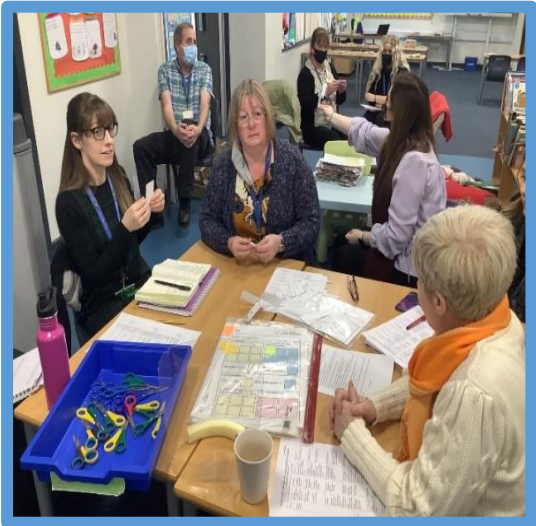
The impact of book monitoring is that it highlighted a need to support the use of Discovery Dog and Post-It Note Planning proformas which were addressed through staff training. Follow up monitoring showed that it had resulted in correct and effective use of the proformas and whole school approach.



← Primarily Science consultant delivering training on Discovery Dog and Post-It Planning. →

Pre PSQM, the subject leader has led staff meetings to discuss new resources and provided staff with feedback on training and supported staff with planning. There has also been additional CPD from specialist science consultants to support staff with planning.

"I have received vocabulary and progression documents from the subject leader I use these to support me with my planning and also when creating displays to ensure I am using the correct vocabulary." Year 2



The staff meeting was informative. We learnt how to use the 'Discovery Dogs' correctly and effectively, alongside the importance of reviewing and allowing the children to explain what they have learnt - Year 2 teacher.

Pre PSQM	During PSQM	Impact
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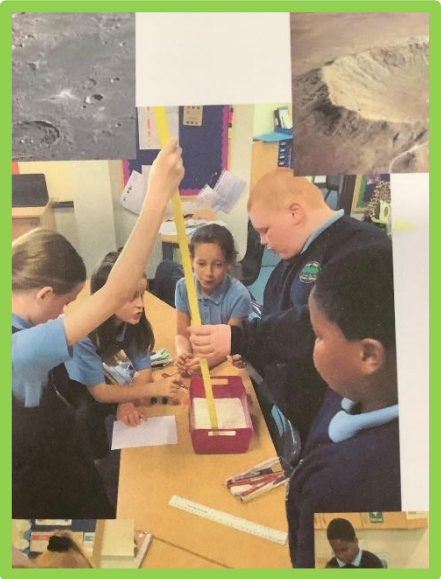
During PSQM, the subject leader has continued to ensure staff are aware of the recovery curriculum, progression documents, medium term plans, discussed with staff how to use floor books and creative ways of recording. They have had further support with planning and specialist CPD to support them with 'Discovery Dog' and 'Post-It' planning. They have also had demonstration lessons to support them with teaching and assessment ideas.

I have increased confidence with my planning and the quality of provision as a result of specialist CPD. – Year 6 Teacher.

I observed a science consultant teaching which gave me more confidence and ideas to implement in my own lessons. I was given feedback from book monitoring to help me reflect on the effectiveness of my teaching and adapt lessons to become more suitable and effective. – Year 3 Teacher and ECT

TB Teachers use and evaluate a developing and extending range of evidence-based strategies to challenge and support the learning needs of all children.

Pre PSQM During PSQM Impact



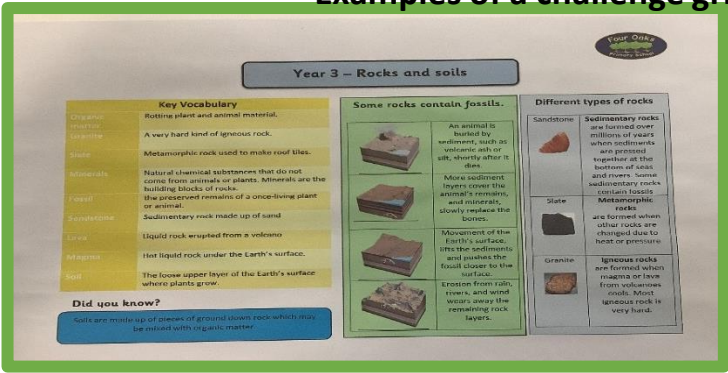
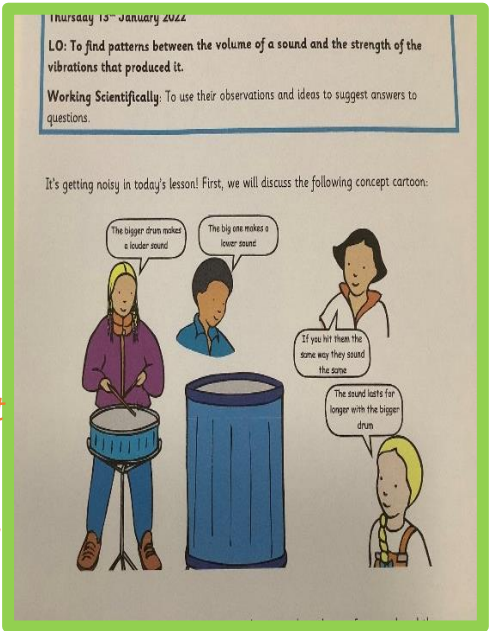
← Year 5 carrying out a Craters experiment. They are working in groups.

The impact of the children working in groups is that higher ability children use longer explanations to embed their knowledge and support and explain to lower ability children.

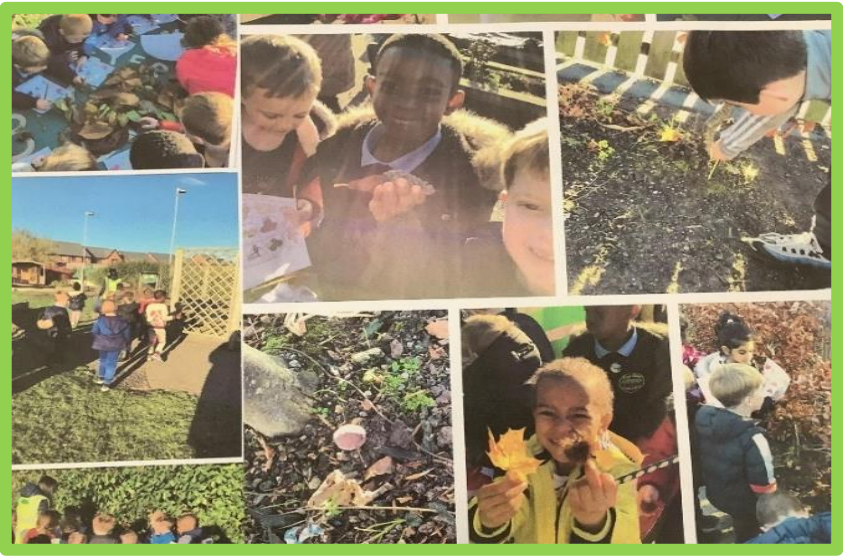
An example of a concept cartoon being used in a Year 4 floor book.

We continue to use concept cartoons to identify misconceptions that children have.

“I have found the concept cartoons very useful to create discussion and address misconceptions.”
Year 4 teacher

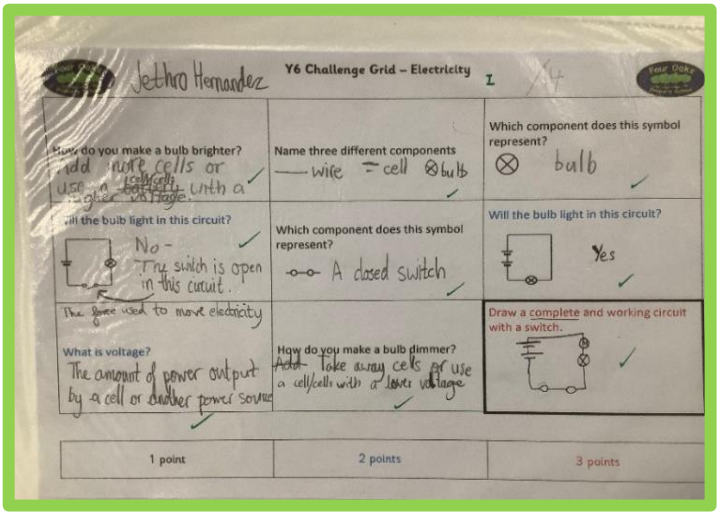


The impact of the knowledge organiser is that children are able to refer to the document in all lessons to support them with their learning.



Our children continue to enjoy learning outside of the classroom. The impact of Year 1 using the outdoor area was that they embeded their understanding of seasonal change and plants.

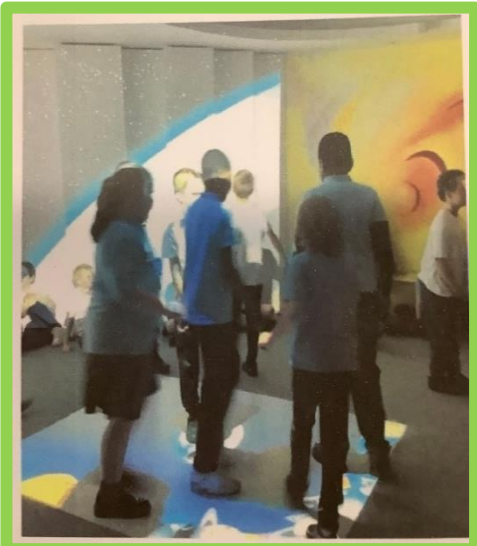
Examples of a challenge grid and a knowledge organiser.



The impact of challenge grids is that children can embed their knowledge and any misconceptions can be addressed.

← Year 1 continue to use outdoor learning spaces.

Year 5 using drama in our 4D room to immerse themselves in space and enhance their learning in a fun way. →



TC Resources are systematically audited and acquired (purchased or borrowed/sourced from outside agencies) so that children can regularly and safely use a wide range of appropriate practical and digital resources, information texts and the outdoor environment.

Pre PSQM, we have always had a well-resourced science cupboard with boxes which are clearly labelled with contents. We have a well established outside area which the children use to enhance their learning. Additionally, we have science non-fiction books and fiction texts that are used to enhance children's learning. These are accessible to the children in both their class libraries and in the main school library. We also have a 4D room which allows the children to be immersed in different habitats and explore seasons.

The science ambassadors helped to organise the library into sections.



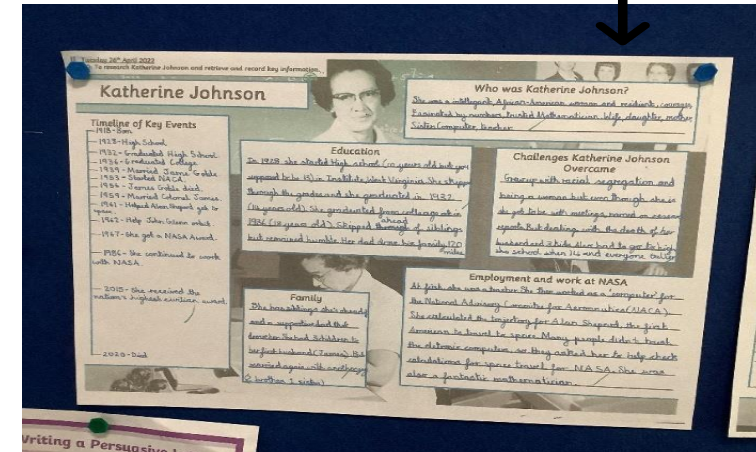
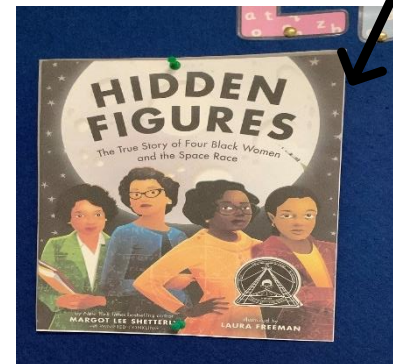
During PSQM, new non-fiction books have been ordered and are being used in the classrooms by the children during their science topics. We have also ordered more fiction texts which are linked to science and have enhanced the children's learning further and also show diversity and promote science capital. New apps are now being used to support children in taking measurements. The children continue to use the outdoor and have been involved in planting flowering plants from all around the world to represent the different nationalities in our school. They have also chosen and planted trees for the Queen's Platinum Jubilee.

Quality text linked to the science curriculum continue to be used to enrich the curriculum and promote science capital.



By using and displaying scientific texts in all classrooms and the shared library, teachers and children can access applicable books and use them consistently in their topics. The impact is that the children embed their learning are encouraged to learn independently.

Year 5 use this book as part of their English curriculum, They write non fiction texts linked to the book. They learn about Katherine Johnson, this links to their learning about space and develops science capital.



Year 1 pupil accessing the classroom library to choose a science text as a reading for pleasure book.



TC Resources are systematically audited and acquired (purchased or borrowed/sourced from outside agencies) so that children can regularly and safely use a wide range of appropriate practical and digital resources, information texts and the outdoor environment.

Pre PSQM

During PSQM

Impact



Y4 children using the Arduino app to record pitch during a guitar lesson.



The impact of this is that children are able to take accurate measurements during investigations.

Resource cupboard with dedicated boxes, labelled for ease.



Pupils using the outdoor area with the gardener.

During PSQM children have worked with the gardener to plant different flowers from around the world to represent the wide range of cultures and diversity in our school community.

The impact of this is that the diversity with our school is celebrated and the children build on their knowledge of flowers and different plants.

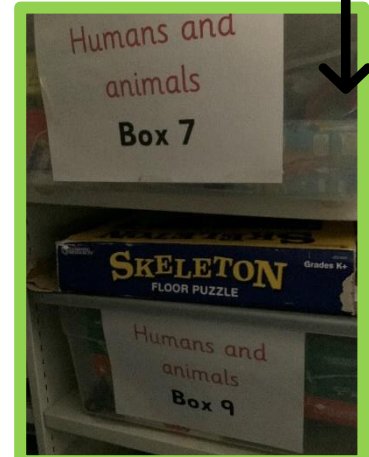
It was so much fun! We saw the star from our book, The Star in the Jar. Then we went back into our rockets and landed in the park in autumn! – Nursery Pupil



Nursery children using the 4D room. →



The impact is that the children are immersed in their learning about autumn.



The impact of auditing and organising the science cupboard into topics is teachers can access and use the practical resources with ease. For further impact, we will add a sign in/out sheet to monitor effective use. An order sheet to replace consumables or worn science equipment will be in place to ensure the full range of resources are always readily available.

LA Children develop independence in the full range of enquiry types, using scientific enquiry skills appropriately to answer scientific questions about the world around them.

Pre PSQM

During PSQM

Impact

During PSQM,

Pre PSQM,

The children are making observations over time of seasons →

The impact is that the children are able to use their observation skills and have learnt about the signs of different seasons.

*“The children really enjoyed researching Marie Currie as part of our science week.”
Year 3 Teacher*

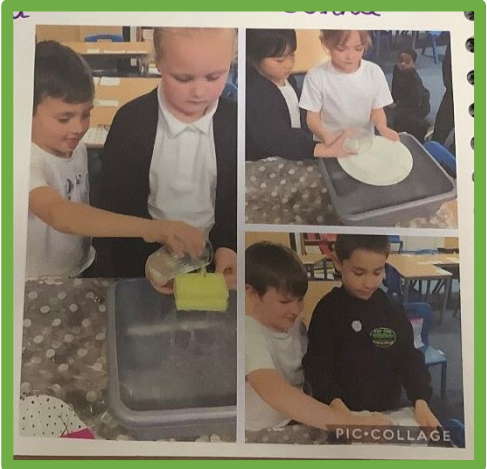
The impact of this is that the children are developing their research skills and also developing their science capital.



← Year 1 testing which material would be best suited for a dog’s head

The impact is that the children were able to perform simple tests to answer questions and discuss the results.

Cotton wool soaked up all the water and broke apart– Year 1 Pupil

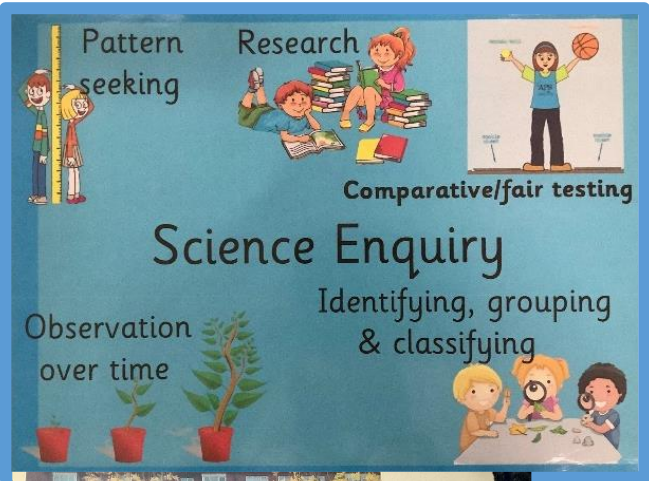


← Science Enquiry poster for children to identify which enquiry type they use in their lessons.

The impact of this is the children are more aware of the different types of enquiry and are becoming more independent in planning their own enquiries. The teachers use this to support them in planning and record they types of enquiry in the floor books

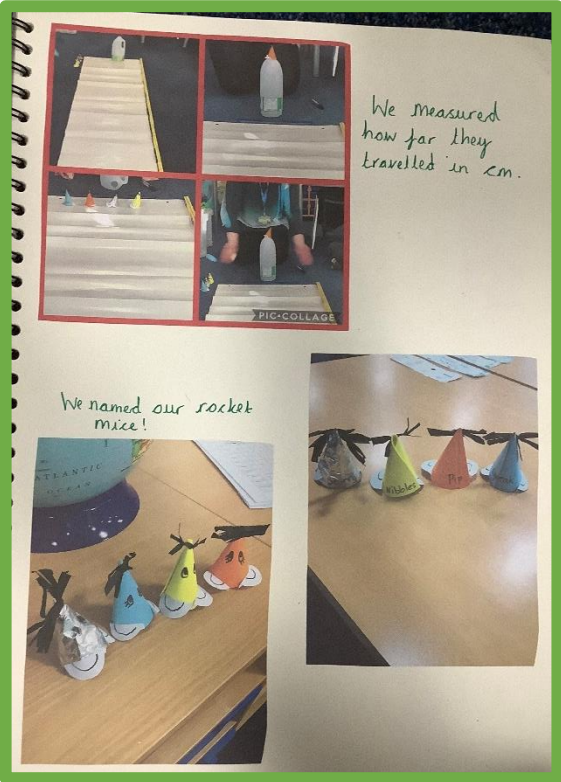
← Year 2 recovery curriculum

The children are observing the changes to deciduous trees over time. The children have written the type of observations they are using. The impact is the children have used their working scientifically observation skills and are aware of the type of enquiry they are using.



LA Children develop independence in the full range of enquiry types, using scientific enquiry skills appropriately to answer scientific questions about the world around them.

Pre PSQM During PSQM Impact



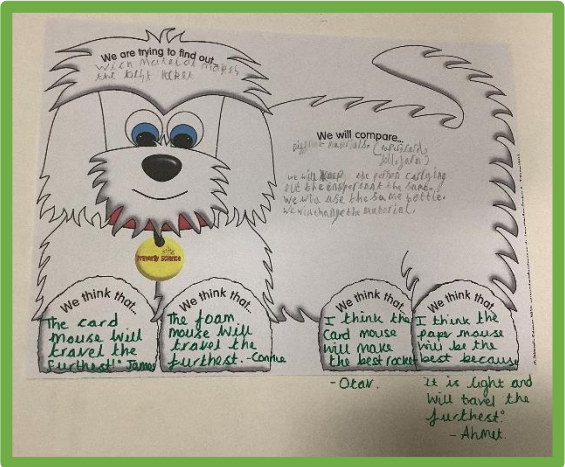
← Year 2 children performed simple tests to see which was the best material for a rocket.

The impact is the children are able to take accurate measurements, developing their working scientifically skills and record their conclusions.

The paper was the worst material for a rocket. It only travelled 70cm.— Year 2 Pupil

KS1 use discovery dog to help them plan investigations. Following staff training, this is used even more effectively during investigations.

The impact of this is that children all make their own predictions and become more independent in asking questions and thinking about how we can answer these questions.

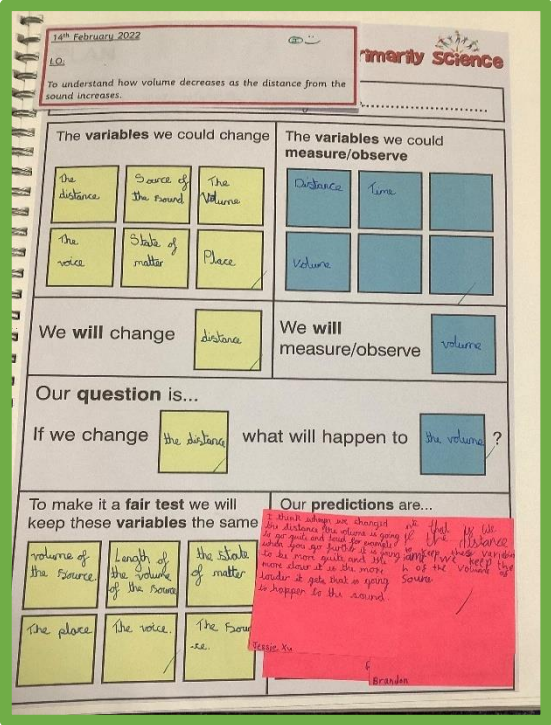


The children are able to identify differences, similarities or changes related to simple scientific ideas and processes.

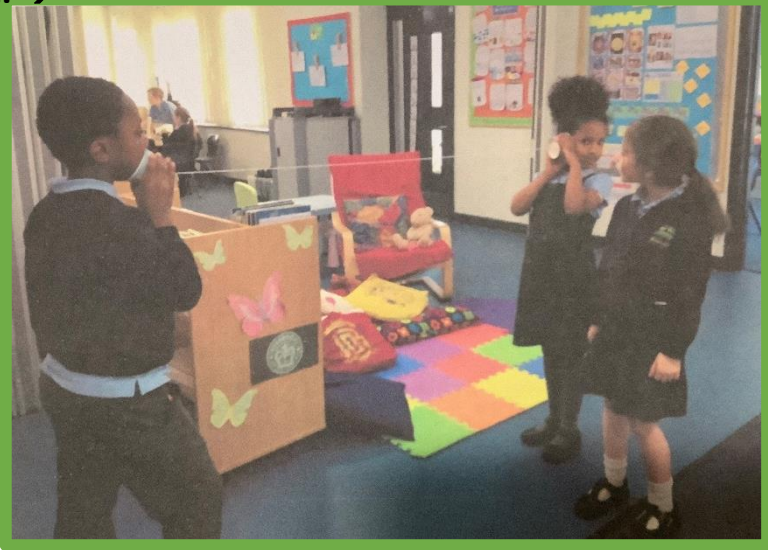
The children all make their own conclusions which enables them to develop their working scientifically skills and also their progress can be tracked.

Children in KS2 use the post-it note plan to help them plan investigations. →

The impact is that all children make their own predictions and are encouraged and supported in thinking of their own questions to investigate.

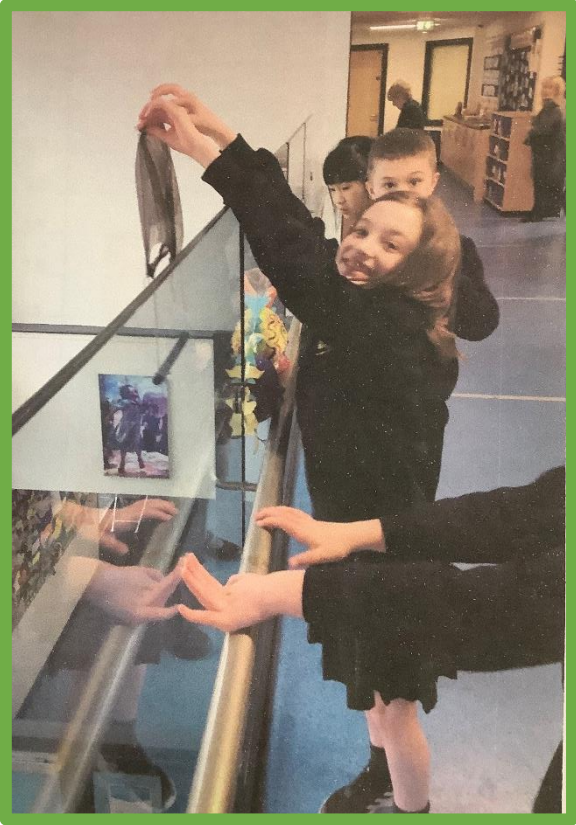


Year 4 children created string telephone using a variety of materials, string and cup sizes to investigate which was most effective. →



LA Children develop independence in the full range of enquiry types, using scientific enquiry skills appropriately to answer scientific questions about the world around them.

Pre PSQM During PSQM Impact

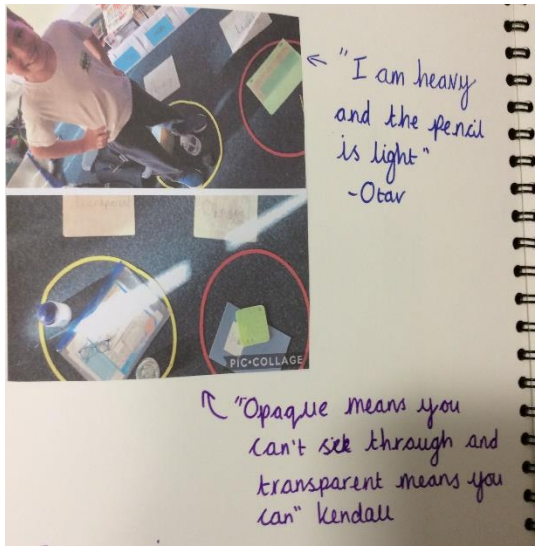


– Year 6 Pupil

We plan our own investigations. We decide on a question; we change one variable and keep the others the same. This makes it a fair test. We record our results in tables and graphs to help us spot patterns.”

← Year 5 investigated the effect that air resistance had on falling objects. →

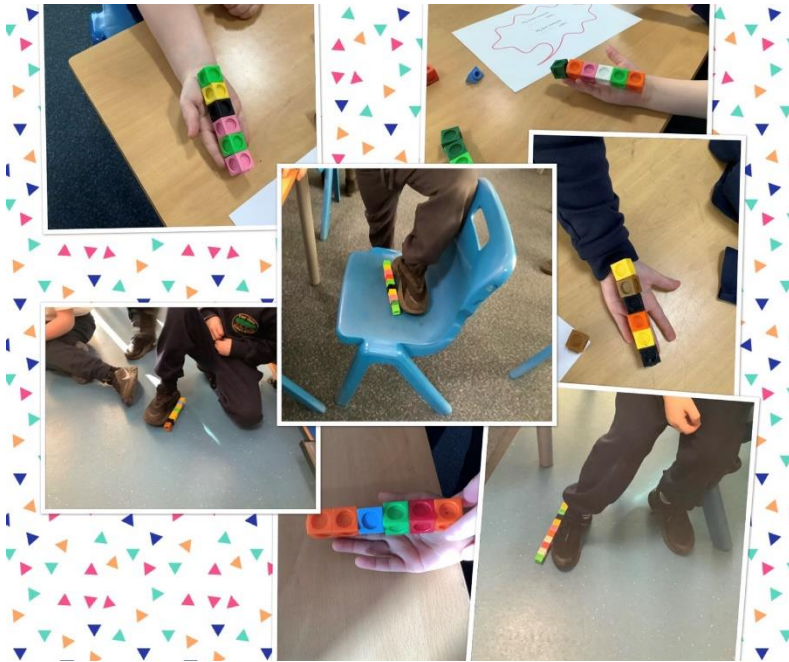
The impact is the children were able to make their own predictions, record accurate measurements through charts and graphs before making conclusions.



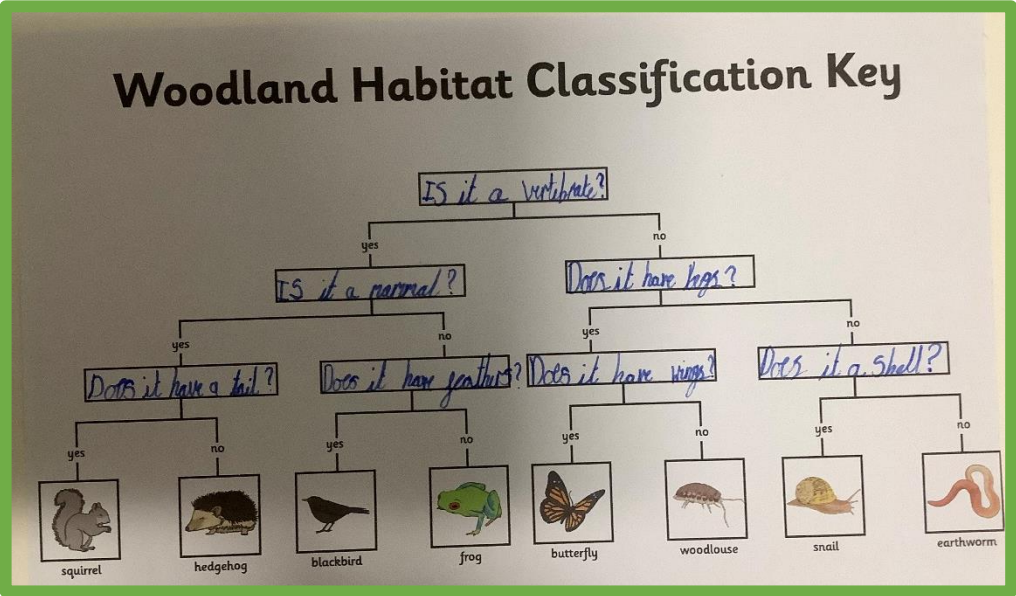
The impact is the children can recognise that things can be grouped in a variety of ways. They were able to create a classification key and name a variety of living things in their local and wider living environment.

Year 1 finding patterns by measuring their hands and feet. →

The impact of this activity was to address misconceptions and they found a pattern that children with the biggest hands do not always have the biggest feet.



Year 4 creating a classification key →



LB There is a school-wide commitment to continually improving assessment practice and processes for formative, summative and statutory assessment, through regular evaluation which ensures that they reflect the shared understanding of the purposes of assessment in science and current best practice.

Pre PSQM


During PSQM

Impact

During PSQM,

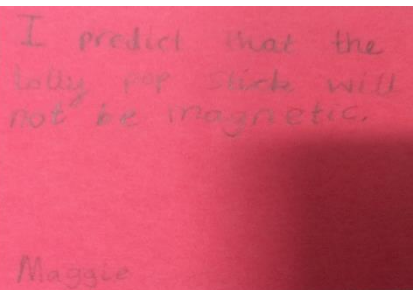
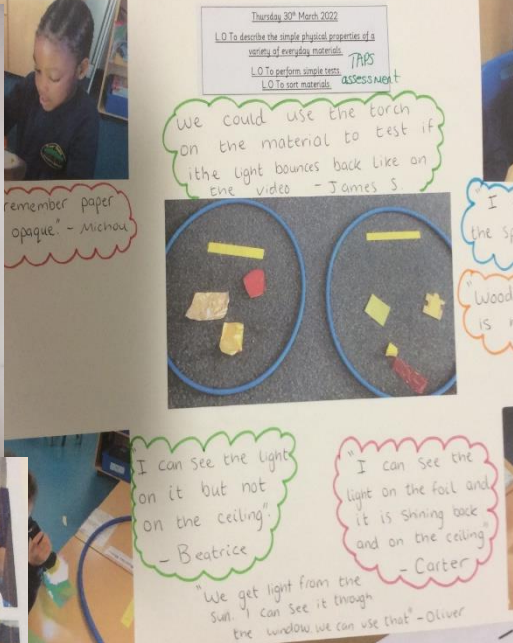
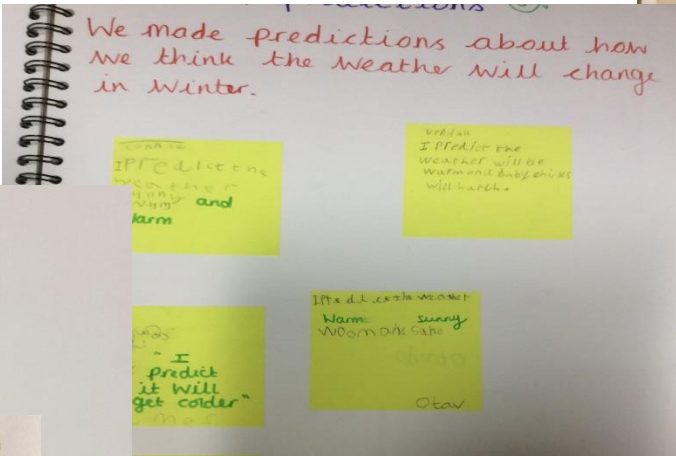
I enjoyed observing the demonstration lesson I have a clear understanding of how to assess the children's prior knowledge Year 5 TA

Pre PSQM,

	Science MTP - Spring 1	Year 2	Topic	Animals including humans
	*Notice that animals, including humans, have offspring which grow into adults.			
	*Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).			
	*Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.			

Prior Learning	Future Learning
<ul style="list-style-type: none">Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)	<ul style="list-style-type: none">Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat (including humans)Describe the differences in the life cycles of a mammal, an amphibian and a reptile. (Y5 - Living things and their habitats)Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)Recognise the impact of diet, exercise, drugs and lifestyle on the health of humans. (Y6 - Animals, including humans)

Opaque

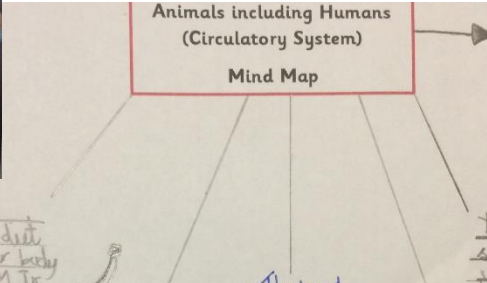


Challenge Grid - Earth and Space		
How long does the moon take to orbit the Earth? 28 days ✓	How long, in hours, does the Earth take to rotate (spin) once? 24 hours ✓	In what direction does the sun move? a) the sunrise? Rise in the east and sets in the west. b) the sunset?
How many days are there in 1 year? (be exact!) 365 1/4 days ✓	A year is a measure of how it takes the Earth to do what? Orbit the sun ✓	True or False - The Moon is a source of light. False ✓
Why do we have day and night? When the Earth is facing the sun, it's day. When it's not, it's night.	Which hemisphere is Britain in? Northern hemisphere ✓	Why do we see phases of the moon? It is because when the moon is reflecting the sun's light, part of it is in shadow. Sometimes you can't see it at all, sometimes you can see it as a full moon or sometimes you can see it as a new moon.
1 point	2 points	3 points



plan.

and now.



Using the TAPs assessments has really supported me in assessing where the children are with different learning objectives. It also provides me with fun activities for me to be able to assess the children.— Year 5 Teacher

LC The whole-school community supports and promotes initiatives that encourage all children to think that science is relevant and important to their lives, now and in the future.

Pre PSQM

During PSQM

Impact

Pre PSQM,

Year 4 planting grass seeds for Liverpool Football Club ground. →

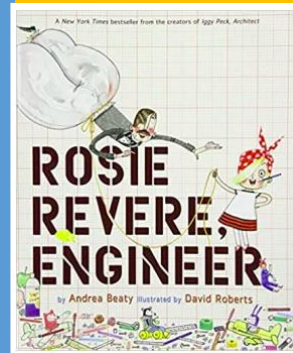
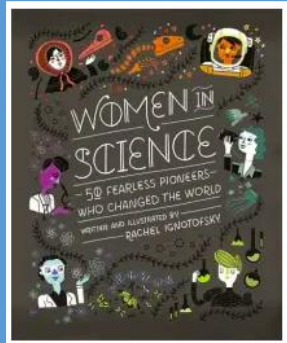
The impact of this activity was the links to their prior knowledge on plants and their current topics on living things and their habitats.



I was incredibly impressed by the high quality and range of science investigations that took place during Science week. Children from all year groups spoke confidently and knowledgeably about their learning and how it related to prior learning. Many enthused about the practical uses their newfound knowledge had.

Headteacher

Books that children can access in their classrooms and in the school libraries allow them to see science celebrated throughout all subjects. More diverse books are being ordered to promote diversity across all topics in science.



← **A selection of diverse books available in the school to promote diversity in science.**

For further impact, books will be monitored regularly to see which are being used, when and their impact on learning.

During PSQM,

We used our science week and science fair to develop science capital. The children took part in interactive science week activities and researched famous scientists and inventors alongside their science week topics. This also links to other curriculum areas such as history, English and P.S.H.E



Each year group produced an interactive stand for our science fair which documented their key learning throughout science week. →



An outside science company called Mad Scientists visited and delivered a science assembly for our theme 'Famous Scientists and Discoveries.' →



WOA Whole-school planning links science to other areas of learning, including English and mathematics, and to whole-school initiatives.

Pre PSQM

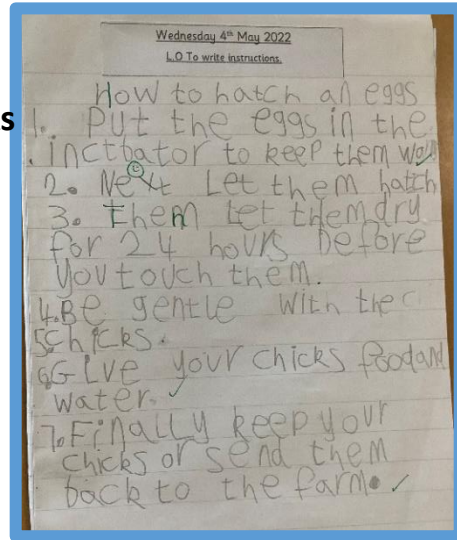
During PSQM

Impact

Pre PSQM,

Year 1 English work, writing instructions on how to hatch an egg after seeing chicks hatch. Links between literacy and science. →

This supports the children to identify how sounds are made, associating some of them with something vibrating. They can also use real life experiences to recognise that vibrations from sounds travel through a medium to the ear.



During PSQM,

Medium term planning where staff map topics and link to the science curriculum. →

This is recorded on our medium term plan where cross curricular links are easily located and children can embed their knowledge through other curriculum areas.

Four Oaks Primary Medium Term Plan Year 1: Spring Term 1 (2021-2022)	
Science curriculum links	<p>KS1 Taking about parts of the body that are all different and have different jobs.</p> <p>KS2 To explore the senses through a range of activities.</p> <p>KS3 To observe different things and describe what they are like and how they are made.</p>
History	<p>KS1 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS2 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS3 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p>
Art	<p>KS1 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS2 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS3 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p>
Physical Education	<p>KS1 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS2 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p> <p>KS3 To know that Mary Queen of Scots was an important person from history and has the title of queen.</p>



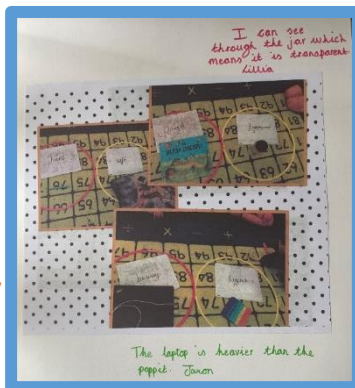
← Year 4 are making torches as part of their DT unit which links to electricity.

I really enjoy Water Sports, especially trying different activities. We used our knowledge of forces and air resistance to help us. – Year 4



← Guitar lessons are provided for Year 4 which links to their topic on sound.

I have been practicing at home because I was so excited to learn how to play a guitar in school this year. – Year 4 Pupil



← Using maths skills in Year 3 Science

Children use their knowledge from the topic on electricity throughout this unit of work to construct a simple series electrical circuit to include a switch and recognise common conductors and

The impact of this cross-curricular activity is allow the children to experience a real life understanding of air and water resistance for the 'forces' topic in Year 5.

Year 4 and 5 take part in Water Sports activities at Crosby Marina during every summer term. Activities include raft building, sailing and kayaking. →



WOB There is regular and purposeful involvement in a range of initiatives supported by other organisations and topical science activities, both in school and with their families.

Pre PSQM

During PSQM

Impact

During PSQM,



Reception children observed eggs in an incubator before witnessing the chicks hatching.

We found out that some birds eat meat, they are carnivores. Not all birds can fly. – Year 1 Pupil

The impact of this activity is that it enhances their learning of the topic and creates awe and wonder.

The chicks are so soft. They are so cute. I loved looking after the chicks! – Reception Pupil

Having the chicks has been so calming, we have really loved having them and seeing how much the children have enjoyed the experience. All the teachers have been to visit them.



Year 1 carried out an investigated to find out what chicks eat in Summer 2021. This activity will happen for this cohort in Summer 2022.



I really enjoyed this activity! It makes me feel proud that I can be part of this challenge. – Year 4 Pupil

← Year 4 planting grass seeds for Liverpool Football Club in Spring 2021 →



This reviewed their understanding of plants from previous year's learning and introduced children to jobs such as groundsmen, improving their science capital.

WOB There is regular and purposeful involvement in a range of initiatives supported by other organisations and topical science activities, both in school and with their families.

Pre PSQM During PSQM Impact



The children were given the opportunity to pet the small animals before feeding the goats and sheep. This gave them hands-on, real-life experience with animals which supported their identifying understanding of living things.

All experiences are shared with parents through the weekly newsletter to encourage discussion at home with families.

Quote from parent about impact of the newsletter?

John was really interesting. My favourite part was learning about the medicine man and wearing the mask. – Year 3 Pupil

I liked trying out the flint and iron to make sparks. – Year 3 Pupil



← **Acorn Farm visiting Nursery Children to meet and feed a range of different animals including chickens, ducks and guinea pigs.**



Year 3 visit from an archaeologist. →

The impact of this visit from a local archaeologist was to create awe and wonder amongst the children whilst they were given the opportunity to handle real life artefacts to improve their science capital.



It was very funny when the tongues of the animals tickled our hands when we fed them! – Nursery Pupil

WOB There is regular and purposeful involvement in a range of initiatives supported by other organisations and topical science activities, both in school and with their families.

Pre PSQM	During PSQM	Impact
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Quote about the impact of purposeful involvement in initiatives from Headteacher / Parents / Teachers?

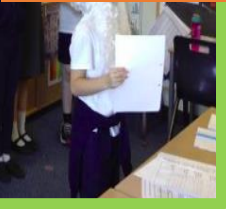
After the visit, Year 6 explored different universities and the wide variety of courses that are available. The children even had the chance to virtually ask students from the University of Liverpool questions about the courses, their accommodation and extra-curricular activities.



Year 6 working with Into University to explore crime and punishment. →



We have a well established outside area and money has been spent on the planting of plants to enrich the children’s learning.



“Into University was so much fun. It made me really want to go to university in the future.” – Year 6 Pupil

twig SCIENCE REPORTER

Year 6 have enjoyed watching news reports about science to enrich the curriculum. The subject leader recommended the website Twig Science Reporter. We have recently watched a report about evolution. Year 6 Teacher



← Y4 stand at the Science Fair during Science Week.



A visit from the gardener →

Year 6 trip to Martin Mere →

Year 6 enjoyed a trip to Martin Mere where they took part in a workshop about adaptations. The impact of this activity is the children have had the opportunity to learn outdoors whilst embedding their learning of the topic.



“It was a fun experience and we learned lots about adaptations and habitats.” – Year 6 Pupil

WOB There is regular and purposeful involvement in a range of initiatives supported by other organisations and topical science activities, both in school and with their families.

Pre PSQM During PSQM Impact



Year 1 enjoyed a 'Wellie Walk' to Stanley park. →
← All children enjoyed the return of the science assemblies led by an outside agency on 'Scientists and Discoveries'.



The children have opportunities to take part in lunch time and after school clubs linked to science. This club uses art and science to investigate British wildlife. →



The impact is it enhances the children's learning of seasons and plants and creates a love of exploring the world around them.

The impact of this activity is the children built on their learning of animals. It encouraged a love of learning and sparked curiosity for independent learning and research. (WOB, WOA)

I loved the Science assembly. My favourite part was when the scientist lit up the fire on her hand. She told us not to try this at home! It looked really cool! – Year 4 Pupil



The impact of this activity is that awe and wonder was created, and the children's science capital was enhanced.



Year 3 took part in an after school club where they explored healthy eating and cooked healthy food. →



← Children across all key stages completed a Science Selfie challenge homework.

This compliments the children's learning about animals and humans, thinking about nutrition and how we move. (WOB, & WOA)

