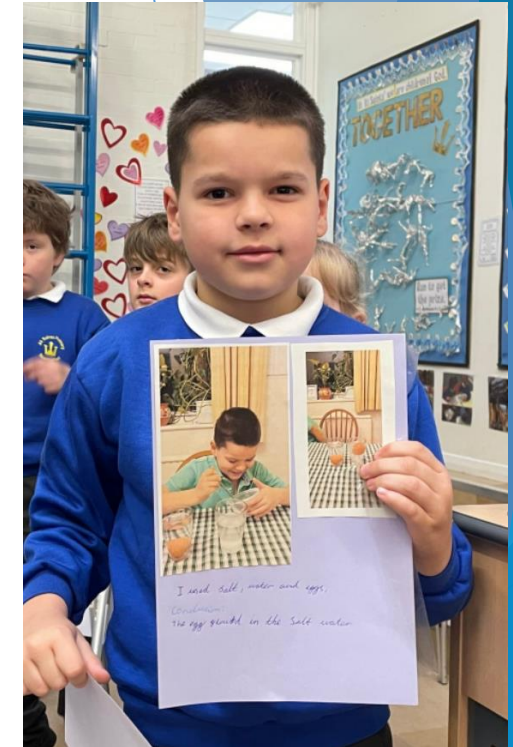


All Saints' CE Primary School

PSQM 2021-22



To identify All Saints' PSQM journey and development of Science, this presentation has been colour coded into 3 main headings; **BACKGROUND/PRE-PSQM**, **ACTION** taken and **IMPACT**.

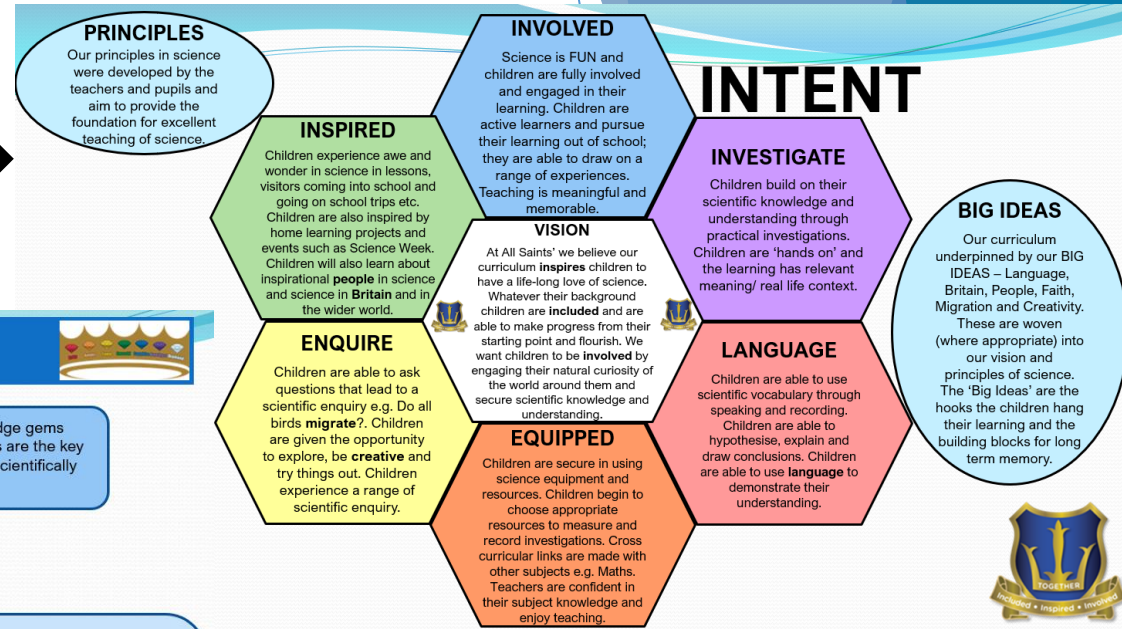


Science Lead: Natalie McManus

SL A. There is a clear vision for science, created and implemented by teachers and children, through principles for teaching and learning.

Despite a clear vision & principles had been created by SL with collaboration with teachers and pupils it was not yet embedded in teaching and learning and not yet shared across the school community.

We revisited these in a staff meeting and teachers started to embed them in their teaching and attitude towards science. I also displayed them in a communal space to raise the profile of science in school.



WE ARE SCIENTISTS

INVESTIGATE

We ask questions and investigate our ideas using different types of enquiry. We can sort, group and classify things based on their similarities. We can make observations and seek patterns in science. We can construct fair and comparative tests when investigating a question. We are 'hands on' and we build on our scientific knowledge and understanding.

In each science unit we build on our scientific knowledge through our knowledge gems centered around; **INVESTIGATE, RESEARCH & RECORD**. The knowledge gems are the key things we learn and try to remember. We apply our learning using our working scientifically skills through practical investigations.

RESEARCH

We learn about the world around us and we use scientific language to explain our learning. We are able to hypothesise, explain and draw conclusions from the knowledge we have acquired. We learn about scientists of today and famous historical ones.

RECORD

We use our skills from other subjects to help us record our learning in science. We use scientific vocabulary for speaking and writing our ideas. We take measurements and record these using graphs and charts. Through our investigations we can use a range of science equipment and resources.



Pupil Voice:

We are scientists reminds us what we need to do in our lessons and the things we cover in a unit of work.

A child friendly version (We are Scientists) was launched to the children, parents and governors These were also displayed in the children's science books and referred to in lessons.

Parent Voice:

During science week, the principles of science go above and beyond. We enjoy learning at home and children are able to extend their learning in their own way. The tasks are often topical and really engaging. Year 5 parent.

Also displayed in children's books and referred to in lessons.



SL A. There is a clear vision for science, created and implemented by teachers and children, through principles for teaching and learning.

Our vision and principles in science are embedded and in action across the school.

INVOLVED

Science is FUN and children are fully involved and engaged in their learning. Children are active learners and pursue their learning out of school; they are able to draw on a range of experiences. Teaching is meaningful and memorable.



Year 1 - children enjoyed having a tortoise in class as part of their topic on animals.

INVESTIGATE

Children build on their scientific knowledge and understanding through practical investigations. Children are 'hands on' and the learning has relevant meaning/ real life context.

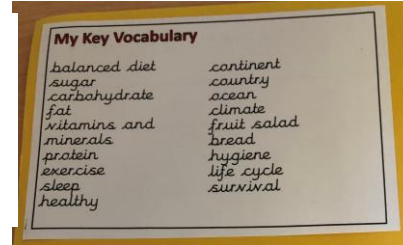
Year 6 - investigating through pattern seeking whether the shape of a bird's beak affects how much or the type of food it will eat as part of their unit on evolution and adaptation.



LANGUAGE

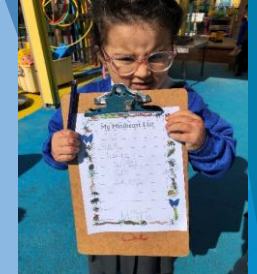
Children are able to use scientific vocabulary through speaking and recording. Children are able to hypothesise, explain and draw conclusions. Children are able to use **language** to demonstrate their understanding.

Year 2 vocabulary list on healthy eating.



EQUIPPED

Children are secure in using science equipment and resources. Children begin to choose appropriate resources to measure and record investigations. Cross curricular links are made with other subjects e.g. Maths. Teachers are confident in their subject knowledge and enjoy teaching.



EYFS role play area based on minibeasts. Cross curricular links made with English (making a list).

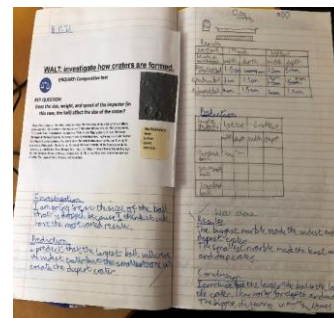
ENQUIRE

Children are able to ask questions that lead to a scientific enquiry e.g. Do all birds **migrate**? Children are given the opportunity to explore, be **creative** and try things out. Children experience a range of scientific enquiry.

Year 4 questions about light.



Year 5 comparative testing enquiry about how craters are formed on the moon.



INSPIRED

Children experience awe and wonder in science in lessons, visitors coming into school and going on school trips etc. Children are also inspired by home learning projects and events such as Science Week. Children will also learn about inspirational **people** in science and science in **Britain** and in the wider world.

Year 3 doing a science trail at the National Horse Racing Museum. This was shared on our social media page for parents.



Staff Saints 15 March '20 We have had a great start to science week with Year 3 visiting the National Horse Racing Museum. Children made comparisons between human and horse anatomy. Every class will have the opportunity to visit the museum during science week.

SL B. Strategic support for subject leadership is provided and includes: focussed CPD for subject leader, regular release time and resources to facilitate development in science.

The main barrier to SLB was negotiating subject leadership time due to Covid and staff shortages; however, this has been easier in the second part of the spring term.

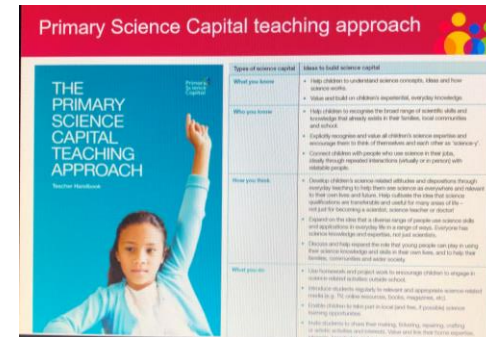
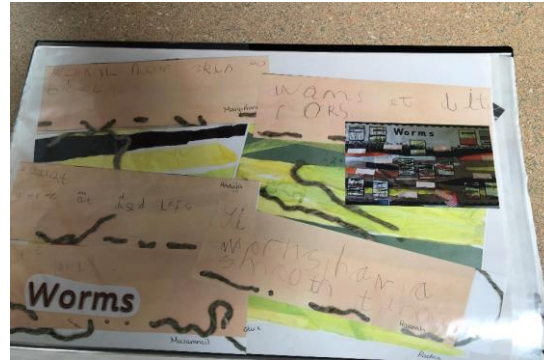


Development of science was included in the school development plan. Leadership time was arranged to enable science development to take place.

1.9 Science	Science drivers for Big ideas curriculum are embedded. Primary Science quality mark awarded	Quality control science knowledge organisers in agreed format. Attend sessions for PSQM and complete tasks required.	Attend sessions for PSQM and complete tasks required.	Submit final submission. Quality mark awarded.	Quality mark can be used in any further marketing/website etc.	Cover for sessions.	BR Quality mark assessors	NM complete by June 2022	Science lead has attended PSQM sessions, led staff meeting, monitored Science books with wider leaders. Spring term: PSQM continues. Science lead has mapped out whole school knowledge progression and Knowledge gems ready for Summer term.
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I have spent time in EYFS to improve my subject knowledge in Early Years and to understand what continuous provision looks like in EYFS.



I have attended all of the PSQM sessions and done wider reading to improve my subject knowledge.



I am more confident as SL and I now have a good knowledge of science from EYFS to Year 6. I am now also able to recognise and talk about how science is implemented in EYFS. It has also supported me in understanding progression and providing progression documents for the school. This enables me to have a better view on how to develop science across the school and how to support teachers and teaching assistants. I also have a range of 'go to places/resources' to support me as a leader and for teaching and learning. The quality of teaching across the school has improved and I know what to look for when monitoring.



All Saints' CE Primary School

SCIENCE – PROGRESSION IN KNOWLEDGE

TOPIC	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Plants	<p><i>Living things & their habitats:</i></p> <ul style="list-style-type: none"> -Draw information from a simple map. -Explore the natural world around them. -Describe what they see, hear and feel whilst outside. -Recognise some environments that are different to the one in which they live. -Understand the effect of changing seasons on the natural world around them. 	<ul style="list-style-type: none"> -Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. -Identify and describe the basic structure of a variety of common flowering plants, including trees. 	<ul style="list-style-type: none"> - Observe and describe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. <i>Identify and name a variety of plants and animals in their habitats, including microhabitats. (Y2 - Living things and their habitats)</i> 	<ul style="list-style-type: none"> - Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. -Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. - Investigate the way in which water is transported within plants. - Explore the part that flowers play in the life cycle of flowering plants. 	<p><i>Living things & their habitats:</i></p> <ul style="list-style-type: none"> -Recognise that living things can be grouped in a variety of ways. -Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. -Recognise that environments can change and that this can sometimes pose dangers to living things. 	<p><i>Living things and their habitats:</i></p> <ul style="list-style-type: none"> -Describe the life process of reproduction in some plants and animals. 	<p><i>Living things and their habitats:</i></p> <ul style="list-style-type: none"> -Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. -Give reasons for classifying plants and animals based on specific characteristics.

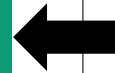
SL C. There is a monitoring cycle, including pupil voice, that informs actions taken and the development of science.


We had a monitoring system in place but it wasn't as effective mainly due to recognition of the importance of science, frequency and subject knowledge.



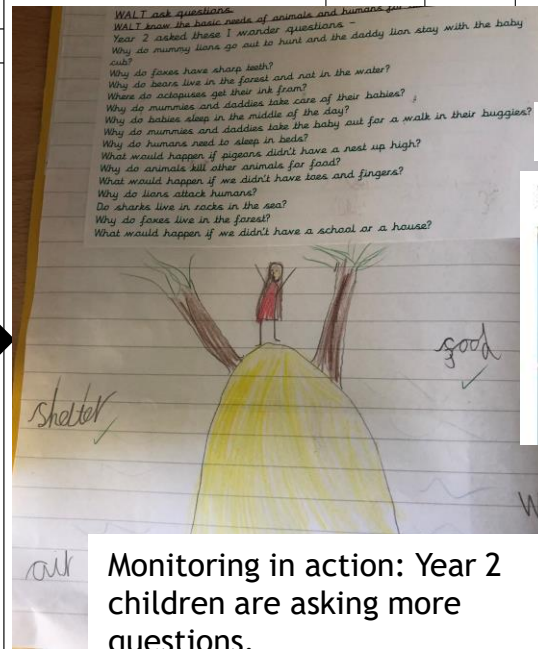
I conducted a book scrutiny with the HT and Chair of governors to base monitoring over the year. I am now monitoring science (looking in books and displays, data check, planning, talking to the children about science etc.) termly instead of annually picking up on the actions addressed from the first scrutiny. I am also doing regular check ins with teachers and teaching assistants.

I more confident and I have a better understanding how to monitor science across the school. Now it is more regular, I can see how well initiatives are working and what we still need to do which then feeds into more CPD or discussions with staff. Science is moving forward more effectively and there is a continuous monitoring process in place.



Subject Leader's Book Scrutiny				Carried out by: Barbara Rodell (HT) Anna O'Hare (History lead), Rachel Wood (Chair of governors), Natalie McManus (Science Lead)			
All Saints' CE Primary School, Newmarket				Subject - Science			
				Date – 25.11.2021			
				Focus/ questions to be answered from previous book scrutiny – consistency across the school and quality of work check			
Year Groups	POLICY Is marking generally in line with policy? Is there evidence of self / peer marking?	WALT Is there evidence of learning in relation to learning intentions?	PRESENTATION Is the quality of presentation /standards of achievement in line with year group expectations ?	COVERAGE Is there evidence of a wide range of learning experiences?	ACHIEVEMENT / PROGRESS Is there evidence of progression and differentiation?	FEEDBACK Are children given next steps in their learning through marking?	ADDITIONAL COMMENTS/ ACTIONS
Reception	Yes	Yes	Yes Excellent use of floor book to capture the children's learning.	Wide coverage of learning Examples; Pattern seeking Exploring the outdoors Seasons Our bodies brushing teeth Memory boxes Light Mixing <u>colours</u>	Evidence of progression of work. It's harder to see differentiation using the floor book but evident in the children's work and on Tapestry.	Children are given verbal feedback.	The floor book captures the children's learning and experiences in EYFS. It shows many aspects of the Big Ideas – e.g. language, people, creativity, faith. <i>Action: To have a central login for Tapestry so that it can be accessed without disrupting the class.</i>
Year 1	Yes	Yes	Yes	Coverage of animal unit No evidence of working scientifically No evidence of farm trip	Clear differentiation and progress throughout a unit of work. Clearly shows whether a child was working	Children are given verbal feedback.	<i>Action: Create opportunities of working scientifically and science enquiry.</i>

WHAT HAVE I FOUND OUT? – SPRING UPDATE		
SUBJECT: SCIENCE	DATE: MARCH 2021	
<p>Areas for development from previous scrutiny: Non-negotiables</p> <ul style="list-style-type: none"> - Enquiry wheel and tick off when completed the enquiry type. - Every science unit includes some sort of enquiry and working scientifically. - Knowledge organisers or key vocab displayed in books. - Red dot & Green dot assessment statements for SK & WS. Improve the way red dot is recorded as discussed at a staff meeting using a KWL grid or equivalent and using EEE or talk/exploration boxes at the start of a unit of work. - Work follows the unit of work guidance (slides from staff meeting sent out previously) to ensure good coverage of both skills and knowledge. - Evidence of children asking questions. - Ensure books are colour coded with book stickers <p>Additional Notes & Actions</p> <ul style="list-style-type: none"> - Please use less flaps in books – sometimes it's really tricky to follow the learning. - Ensure learning equates to 2 hours of science a week (this could be blocked/weekly/combination - best practice is weekly lessons). - Consider ways to include 'Big ideas' which are evident in the children's work – e.g. meet the scientist. - Think about cross curricular writing and creative ways children can present their work. - Use PLAN assessment for guidance on coverage and attainment of work for each year group. 	<p>Strengths across the school and actions addressed:</p> <ol style="list-style-type: none"> 1. Non-negotiables are being addressed across the school. 2. Reduced Red Dot task has enabled more time for EEE and talk boxes. 3. More evidence of different enquiry types being used and symbols are being taught to the children. 4. Vocabulary and sentence stems are being used across the school. 5. Children are using Explain and Scientist Like Me resources. 6. Range of extra-curricular activities across the school to promote science capital. 	<p>Areas for development:</p> <ol style="list-style-type: none"> 1. Introduce knowledge gems in science 2. Ensure children are using different ways to record. 3. Trial TAPS assessment



Monitoring in action: Year 2 children are asking more questions.

Monitoring in action: Taps assessments being implemented.

We flew our mice as far as we could and recorded the results.

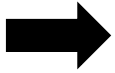


Pupil voice has also improved:

My learning in science has improved by doing more practical things, my teacher helps me and I use resources in my book.

T A. There is provision and signposting of relevant internal or external professional development and support with which staff engage.

The main barriers to TA were, CPD opportunities were undertaken by the SL and not shared with other teachers. Also, there was no provision for CPD for teaching assistants.



Regular CPD in science was timetabled into staff meetings and all teachers were signposted to any external training opportunities. All teachers and HT received science assessment training with Claire Seeley.



Ofsted and Assessment

Implementation

- Teachers have expert knowledge of the subjects that they teach. If they do not, they are supported to address gaps in their knowledge so that pupils are not disadvantaged by ineffective teaching.
- Teachers check pupils' understanding effectively, and identify and correct misunderstandings.
- Teachers ensure that pupils embed key concepts in their long-term memory and apply them fluently.
- Teachers use assessment to check pupils' understanding in order to inform teaching, and to help pupils embed and use knowledge fluently and develop their understanding, and not simply memorize disconnected facts.

Impact

- the progress that pupils are making in terms of knowing more, remembering more and being able to do more

KS1 & a KS2 teaching assistant attended CPD based on 'Science in my Pocket'.

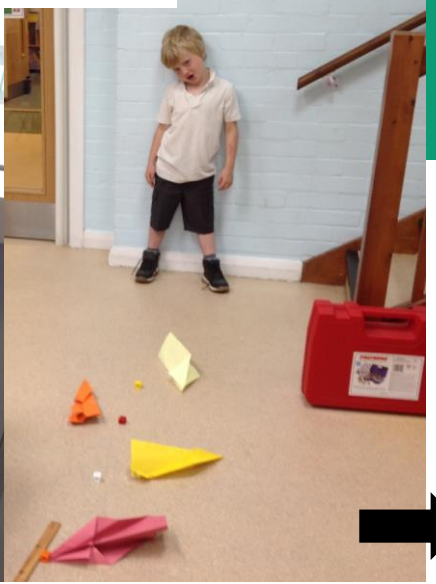
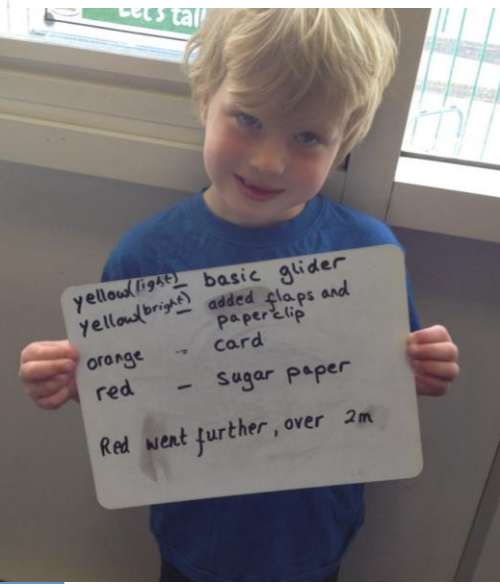
I also supported teachers on an individual basis with specific aspects of science e.g. supporting a supply teacher when covering science.



Science in my pocket being used for a Year 1 child with speech and language difficulties (SEND). He experimented with making the his aeroplanes more aerodynamic and the colour choices where used to add additional practise for the sounds for speaking. He absolutely loved this activity.

Teacher subject knowledge and confidence improved which fed into improved quality of teaching. Teachers were able to move children's learning forward and use higher level questioning to draw out the children's understanding during observations.

After Claire Seeley's assessment training, teachers started to assess children's knowledge and skills which is recorded in various ways.



Year 2 teacher reflection after assessment training; the training was really useful and the TAPS resources are a great way to assess children's working scientifically skills which we weren't doing before.

Feedback from Y5 lesson observation: The teacher used high level questioning to draw out children's knowledge about forces.

Year 1 teaching assistant reflection after the training (science in my pocket): This is the best training I have ever been on and it was very useful and practical. I thoroughly enjoyed it and found it an excellent resource to use with the children.

Year 6 Green Dot Assessment – Earth & Space

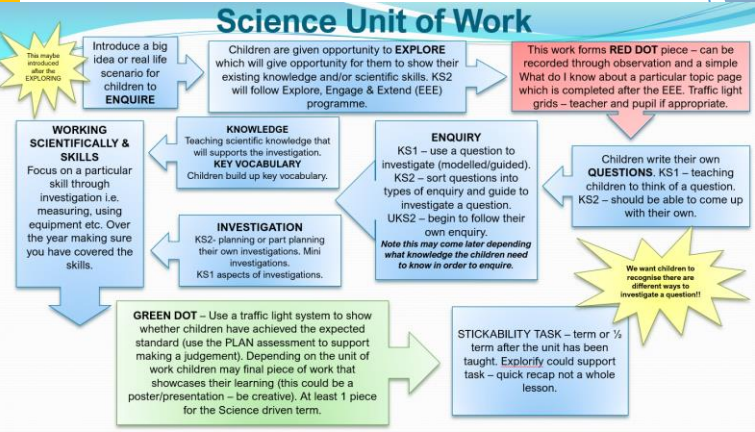
GREEN DOT – SCIENTIFIC KNOWLEDGE	SA	TA
Describe the movement of the Earth and other planets relative to the sun in the solar system.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Describe the movement of the moon relative to the Earth.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Describe the sun, Earth and moon as approximately spherical bodies.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WORKING SCIENTIFICALLY SKILLS		
Set up a simple comparative test with controlling variables.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Report and present findings from enquiries, including conclusions.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Year 6 example of editing red and green dot task which were less meaningful before. Now we are using TAPS and other resources we don't need children to complete a big written task at the end of a unit.

T B. Teachers are supported to use a range of effective strategies for teaching science which challenge and support the learning needs of all children.

The resources teachers not high quality. There was also limited evidence of how working scientifically was being taught. Our language oracy and acquisition are poor across the school due to a high number EAL pupils with no English and many arrive with little previous schooling despite being in KS2. We also have a range of complex SEND needs.

Limited the use of 'Twinkl' as a learning resource and I made a flow diagram for teachers to support what a unit of work should include. I also gave teachers the PLAN examples of work to support planning. I directed teachers to Hamilton, STEM, PSTT etc.



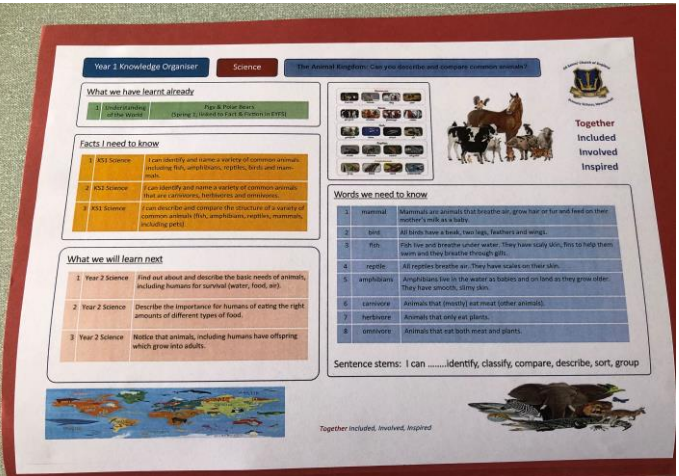
This has improved the consistency of teaching and learning across the school. Using the PLAN documents teachers were more aware of what a secure child's unit of work looked like and could plan more effectively. It also ensured that every unit included some type of enquiry.

The main area of development was focussed around Improving children's use of scientific language across the school.

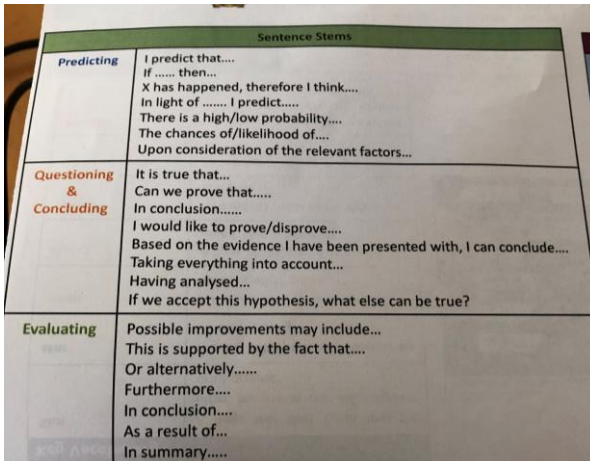
Having key knowledge, vocabulary with definitions and sentence stems gave children a resource to support their writing and explanations. Key vocabulary is taught at the beginning of a unit and revisited in lessons.

EYFS displayed language around the classroom and recorded vocabulary as part of their lessons.

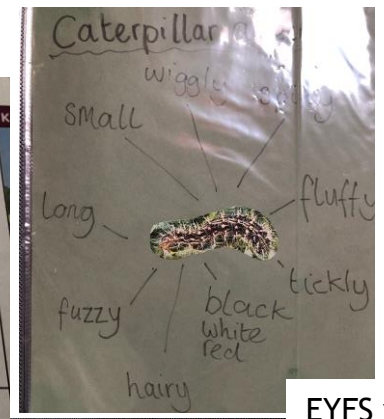
Children are given the opportunity to practise their oracy skills using Explorify and are encouraged to use sentence stems when explaining their ideas.



Year 1 knowledge organiser with key words and definitions.



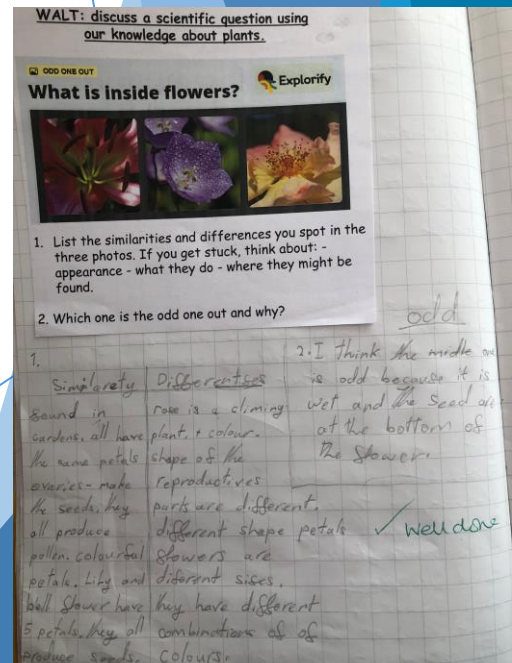
Year 5 knowledge organiser with sentence stems.



EYFS vocabulary

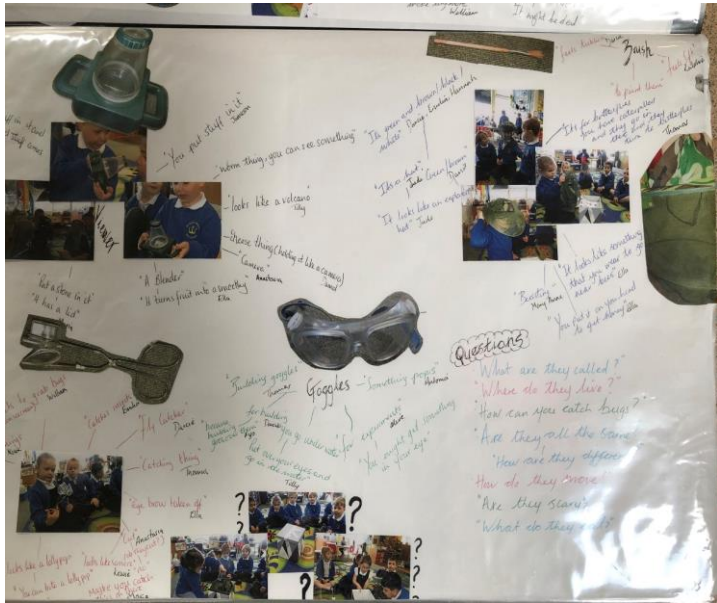


Y3 using their knowledge about plants to explain their ideas for an Explorify activity.

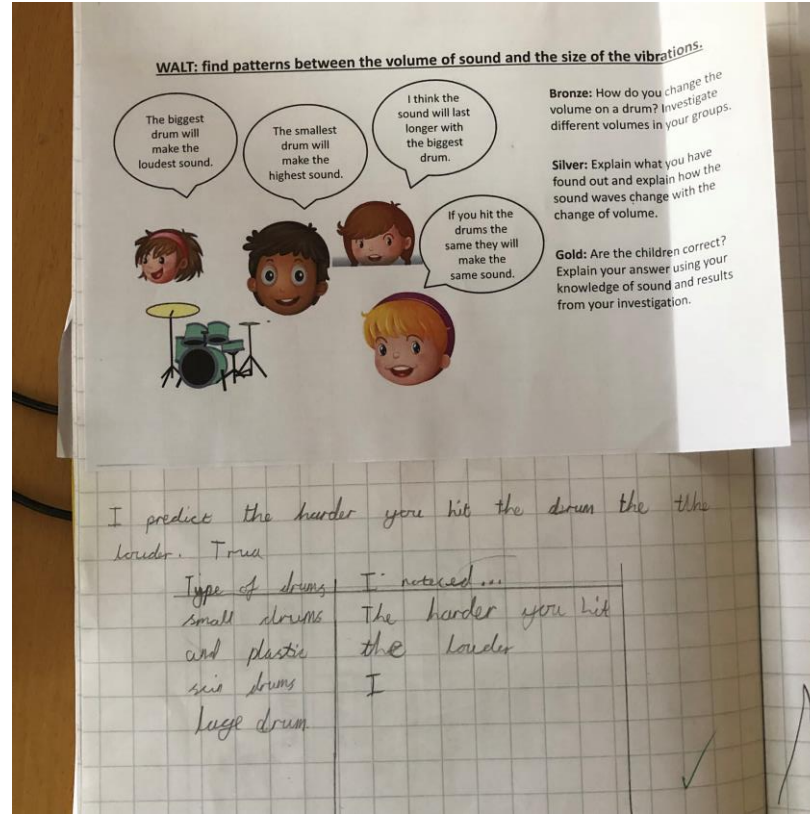


T B. Teachers are supported to use a range of effective strategies for teaching science which challenge and support the learning needs of all children.

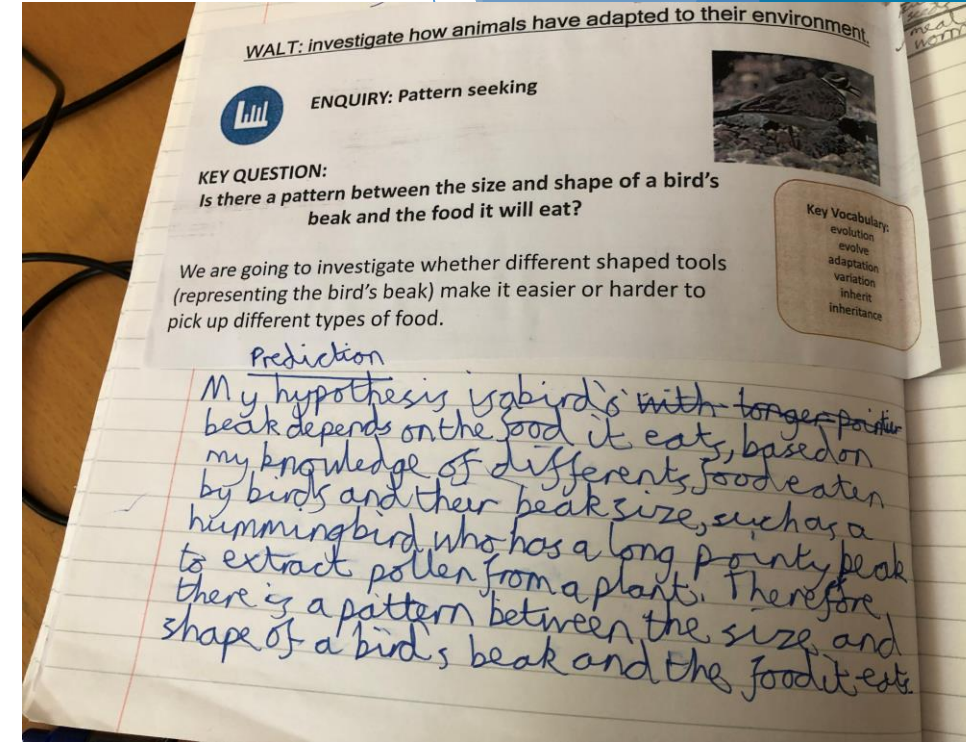
Evidence of children using the sentence stems and vocabulary is also evident in their writing and use of language.



EYFS using talk boxes to support the children's learning but also for teacher assessment.



Year 4 unit on sound and using concept cartoons to find patterns in volume.



Year 6 using their hypothesis using their scientific knowledge and understanding to support their prediction.

You can also identify teachers are using a range of resources to support the children's learning instead of using ready made resources or when they are used they are adapted appropriately.

T C. Resources are audited annually, well-organised and accessible, so that children can regularly and safely use appropriate practical and digital resources, information texts and the outdoor environment.

Science resources were already well resourced and organised but not all resources were being used e.g. data loggers & plug-in microscopes due to ICT issues. Staff wasn't always aware of the resources we had and there was limited evidence of learning outdoors.

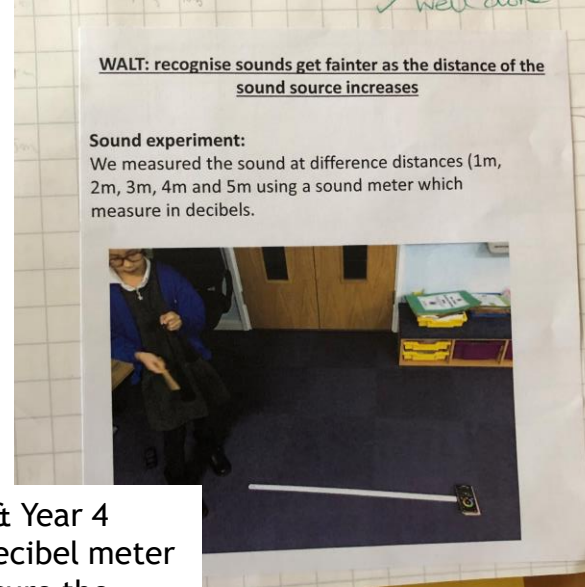
ICT issues were overcome with data logging apps added on the class iPads and software for the microscopes was installed on teachers' laptops.

Y6 children were able to use the plug-in microscopes to support and extend their learning about microorganisms. Children thoroughly enjoyed using the microscopes and were naturally curious about what they could see.

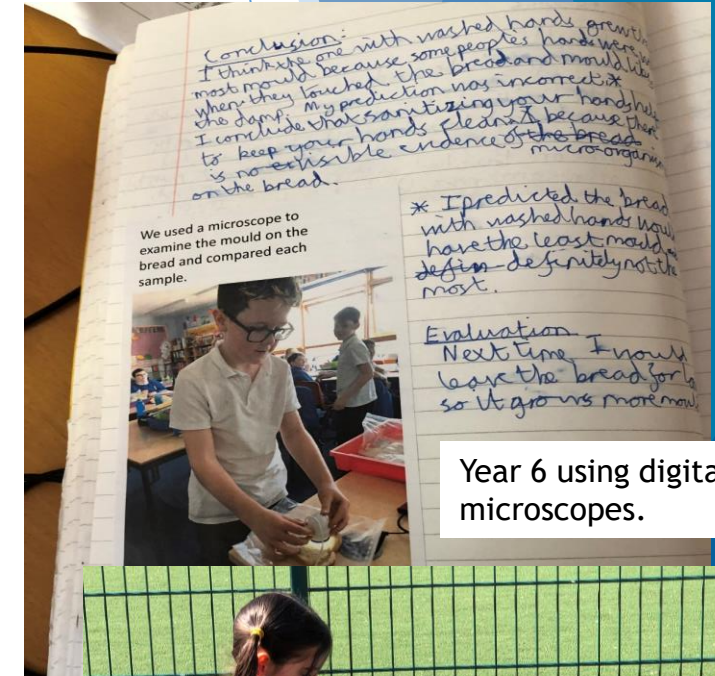
Highlighting new & existing science resources during a staff meeting reminded teachers of what we had and where to access them. This encouraged teachers to use the resources and adding data logging apps and the correct software enabled children to use ICT and measure and record more effectively in science. This also links back with our principles in science of being 'hands on'.

I also introduced 'Playground Science' across the school for children to use at playtimes and trained MDSAs how to support the children.

Year 1 using the light box for finding out the properties of materials.



Year 3 & Year 4 using decibel meter to measure the sound.



Year 6 using digital microscopes.



Year 2 using the tablets to take photographs of plants they found in the school grounds.

KS1 using playground science.



Playground science has been a huge success at All Saints' across the whole school. Children have really enjoyed taking the bags outside and children were actively talking and engaging in science which also fed into developing our scientific language.

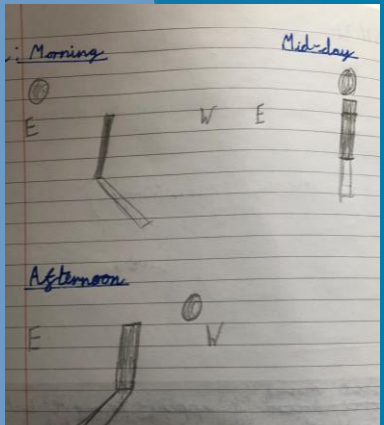
L.A. Children are taught to use different enquiry types to answer scientific questions about the world around them, through the use of scientific enquiry skills.

There was limited evidence of children using a range of enquiry types and developing their enquiry skills across the school. Children didn't know there are different ways to answer a scientific question.

Introduced an enquiry wheel with symbols which is displayed in the children's books, used the symbols in lessons and on a science display.

I conducted teacher training focussed on working scientifically and introduced teachers to the 'Ogden Trust' resources.

Year 1 observing plants and how they grow.



Year 5 investigation about how craters are formed on the moon - using comparative testing with the symbols being used. Earth & Space was also linked to their Tudor topic. Children also have work banks to support their writing.



Enquiry wheel being used across the school.

Evidence of children drawing to explain and using their working scientifically skills. Year 5 explaining shadows and earth rotation through drawing.

WALT: investigate how craters are formed.
ENQUIRY: Comparative test

KEY QUESTION:
Does the size, weight, and speed of the impactor (in this case, the ball) affect the size of the crater?

Size of ball	1st test	2nd test
Weight of ball	width	depth
Small ball	1.5cm	1.5cm
Medium ball	3cm	1.1cm
Large ball	4cm	1.5cm

Production

Weight of ball	width	depth
10cm small ball	12cm	1cm
20cm small ball		
30cm small ball		

Investigation
I am going to test the size of the ball that is dropped because I think it will have the most varied results.

Prediction
I predict that the largest ball will create the widest crater but the smallest one will create the deepest crater.

Results
Well done. The biggest marble made the widest and deepest crater. The smallest marble made the least wide and deep craters.

Conclusion
I conclude that the larger the ball the larger the crater. This was for depth and width. The biggest difference in my results was

Year 1 children being 'hands on' and using real plants which also feeds back into our principles.



Different types of enquiry and the development of using enquiry skills has really improved across the school. Children are recognising the symbols and teachers are planning and delivering higher quality enquiry lessons. Teachers are also incorporating word banks to support children's language. Working scientifically skills are actively being taught and the quality of children's drawing with explanations improved.

WALT: investigate how water is transported in plants.
ENQUIRY: Observation over time

KEY QUESTION:
How is water transported in plants?

Water is important to keep a plant healthy. We are going to investigate how water is transported in plants by adding food colouring to the water and over time we will look for evidence of how it is transported in the plant.

Key Vocabulary:
Observation, Absorption, Stem, Flower, Fresh water

Hypothesis
I think water is transported up the stem into the flowers.

Prediction
I think the flowers will change colour because like water the dye will travel up the stem and make the petals a different colour. But it might not actually work because it doesn't have a stem and it might need a stem for the water to travel up.

Results
A plant biologist is what they are interested in understanding how plants work. You need to learn how to grow plants to investigate but they need to be because all our food comes from plants.

Year 3 investigation about how water is transported in plants- using observation over time and fair testing. Again children using the symbols and word banks.

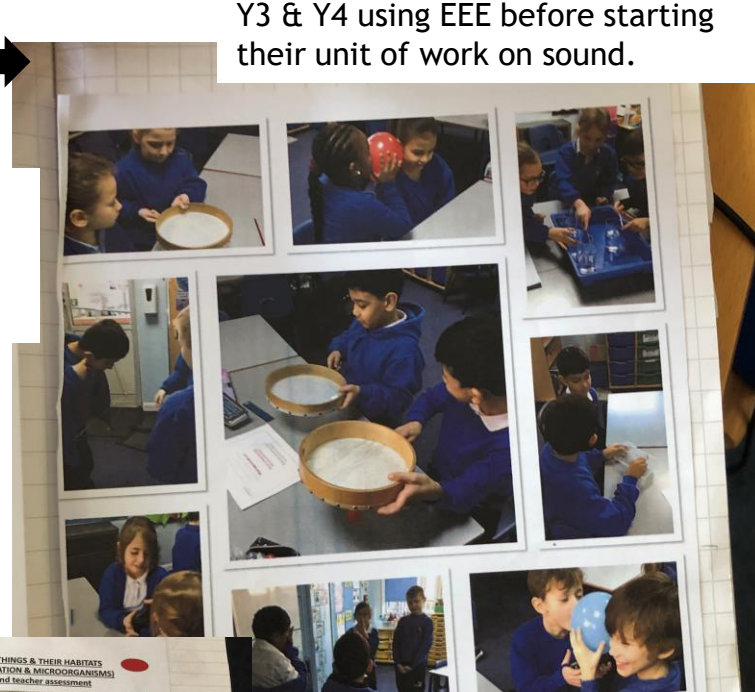
L B. A range of strategies and processes for formative, summative and statutory assessment are used, which reflect a shared understanding of the purposes of assessment in science and current best practice.

The school uses Target Tracker for summative assessment and red and green dot task as part of formative assessment. However, through monitoring it was evident that the assessment strategies were not always a true reflection of the evidence of children's work and there was no working scientifically assessment in place.

Claire Seeley conducted assessment CPD for teachers which included TAPS assessment and introduced TAPS assessment in the summer term.

Using TAPS assessments teachers can now assess working scientifically skills alongside knowledge effectively.

We also embedded Explore, Extend and Engage to KS2 and talk boxes in KS1 to support baselining the children's understanding.



Y3 & Y4 using EEE before starting their unit of work on sound.

EYFS using talk boxes and recording using floor books.



We flew our mice as far as we could and recorded the results.

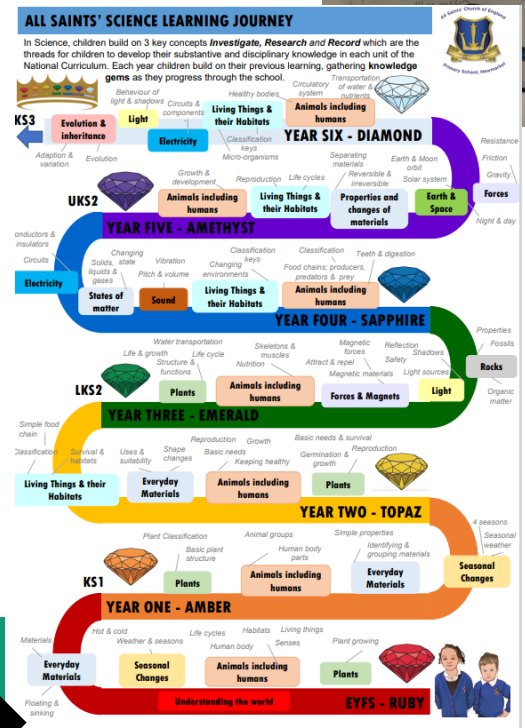


44 cm Shakur	83cm Rida	197cm Archer
91 cm Nayash	153cm Veronica	san Cobey
33cm Jackson	126cm Naayna	60 Mikhael
150cm Muf	102cm Ghaia	151cm Anwar
133cm Lita	168cm Louise	60m Charles
79cm Oliver	60m Charles	11cm Kayla
89cm Max	11cm Kayla	9cm Saad
110cm Ahyaan	25cm Saad	25cm Saad
82cm Eleanor	16cm Benjamin	
160cm Abirah		

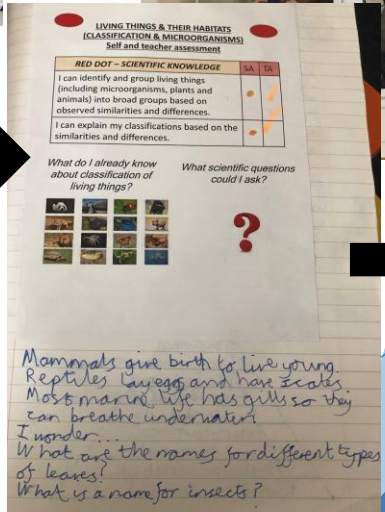
Year 2 example of a TAPS activity.

Using the PLAN matrixes (also see slide 4), I created progression documents for science to support assessment and teaching and learning.

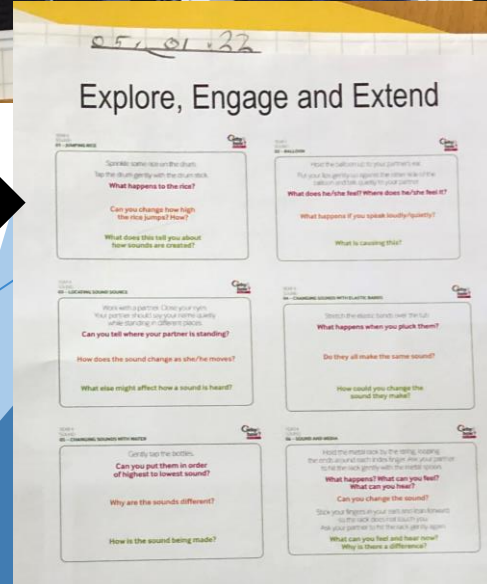
Progression documents have been particularly useful in identifying gaps in the children's learning due to lockdowns.



Assessment is more effective because teachers have a better base line of children's understanding before they teach a unit of work. This feeds into their planning and identifying gaps in the children's learning.



Y6 completing a reduced red dot task after doing Explore, Engage & Extend task.

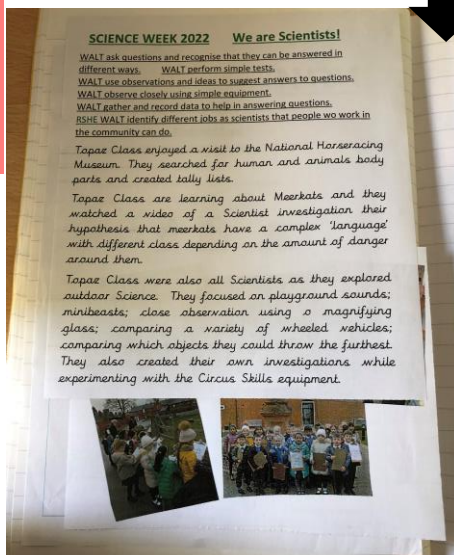


L C. Initiatives that encourage all children to think that science is relevant and important to their lives, now and in the future, are supported and promoted

There was little evidence of developing science capital partly due staff not being aware and Covid had restricted additional support such as clubs etc. I conducted a pupil voice and children were asked to draw a scientist. Most children were unable to identify themselves as a scientist and had already decided science was for clever people.

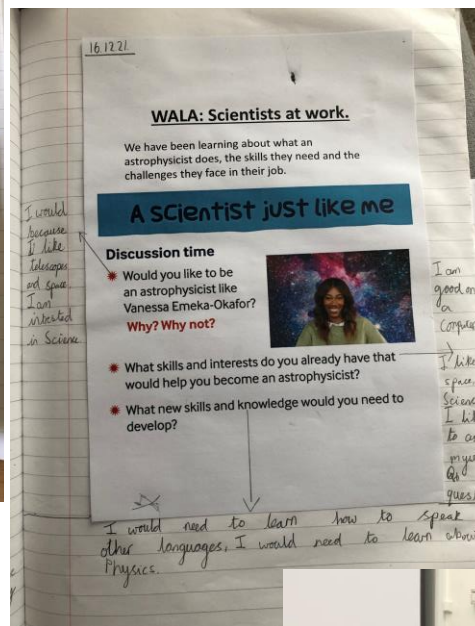
Before and after picture of a scientist.

After training on unconscious bias, I resourced a range of texts based on scientists from minority backgrounds and introduced 'A Scientist Just Like Me' across the school.

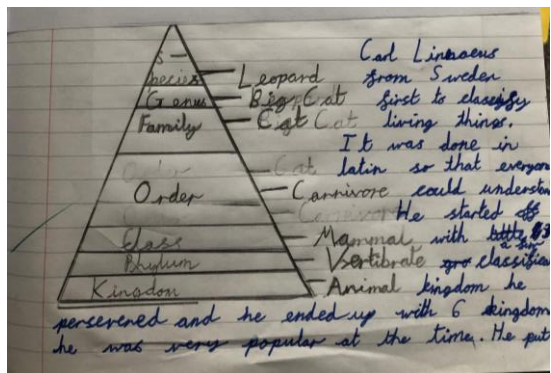


Year 2 learning about how to answer scientific questions on their trip to the National Horse Racing Museum.

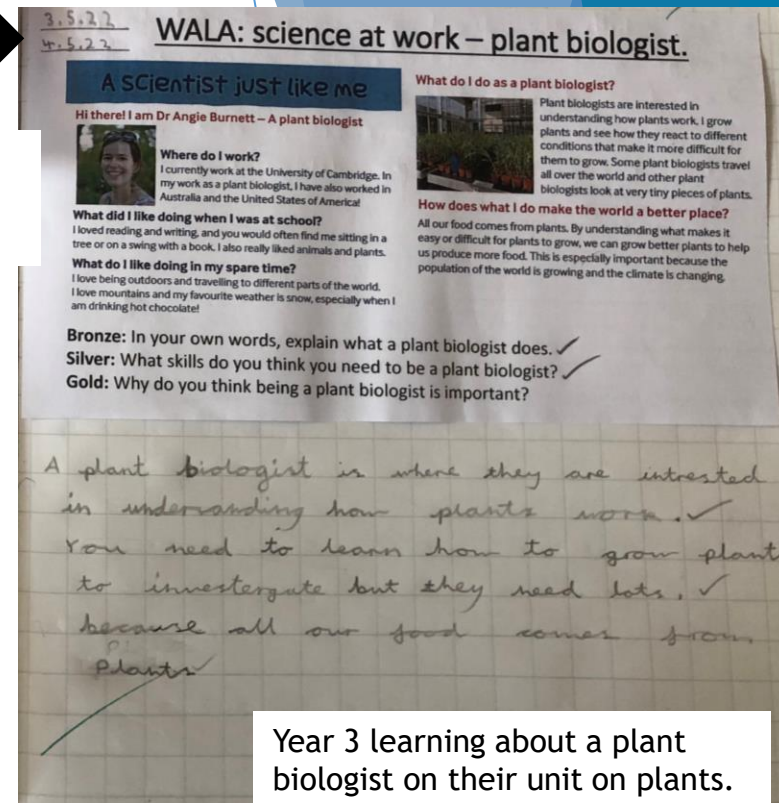
Year 5 learning about an astrophysicists on their unit of Earth & Space.



Year 6 learning about a Carl Linnaeus on their unit about classification.



The introduction of developing science capital has had a significant impact on our school and has fed in to other areas of the curriculum Children have a better understanding of how science relates to the world around them and the jobs scientists do. They have learnt about a rich and diverse of scientists of the past and present.



Year 3 learning about a plant biologist on their unit on plants.

Teachers are also adding science into other areas of the curriculum such as in assemblies linked to values.

The Year 5 teacher did a collective worship session about forgiveness and that when you hold things in and hold a grudge then eventually it all goes bang which she demonstrated through a science experiment.



WO A. Curriculum planning links science to other areas of learning.

We have been re-writing our curriculum to have more links with science and science linking more with other areas of the curriculum

During a staff meeting we looked at how science links can be made with other subjects such as history. I introduced the science ideas web to the teachers to support planning.

In year 2, science was linked with DT and RE. Children prepared a Rash Hashanah meal as part of their learning about being healthy.

Year 4 example Romans linked with Teeth & Digestion.

In year 5, children linked their learning in Geography based on a local study of the area and equine reproduction. Children visited the stud and learnt about the racing industry as well as horse anatomy.

This shows one example how the science web ideas was implemented into planning and teaching for Year 4.

In EYFS, science was linked with P.E and Art to support children's understanding of mini-beasts.

WO B. There is participation in some external initiatives, topical science events and family learning.

Covid restrictions limited visitors we could have in school and trips etc. It also has had a big impact of engaging families with home learning and since the return to school our uptake on home learning has been really poor.

We did a big drive of family learning on the lead up to science week with flyers, science led collective worship, launching our principles and posting on our online learning platforms to encourage families to get involved.

ALL SAINTS' SCIENCE WEEK



KS1 & 2 home projects.

Science week was really successful and when children were asked 'who is a scientist?' children all raised their hands when previously they didn't recognise themselves as scientists. Family learning was particularly successful in KS1 and LSK2. Lots of children entered the poster competition and many families got involved in family learning projects. We have also made links with parents who use science in their jobs.



FAMILY LEARNING

Winners from the science poster competition based on the theme 'growing'. Winners were selected by the governors.



KS1 & 2 home projects.



Parent who works as a medic came in and did first aid training with KS2.



Science awards for children who go involved with science at home.



WO B. There is participation in some external initiatives, topical science events and family learning.

Year 1 and Year got involved in 'World Mars Day' and joined in live on zoom.

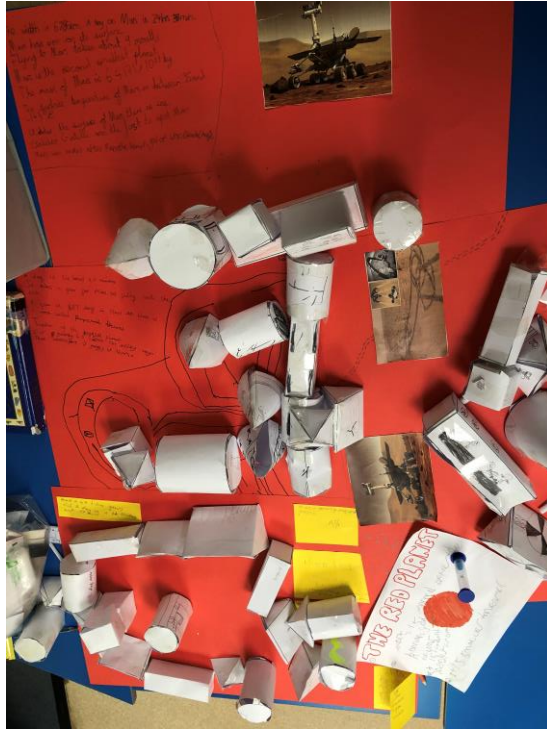
Staff Saints
14 March · 🌐

Amber Class ZOOM'd into Mars Day as part of Science Week, we saw Tim Peake and watched how to create craters and launch rockets. 🚀 This afternoon we are learning more about Space Robots #ScienceWeek2022 #marsday



Children were engaged in topical science which broaden their learning.

The profile of science has been significantly raised across the school and links have been identified into trips and visitors which have engaged and sparked an interest in the children. The best bits from the children are always the experiences they have had.



Year 1 visited a local farm linked to their science unit about animals.



Year 4 had the school dental nurse come in to talk about keeping your teeth healthy.



Across the school, children have been on trips or had visitors in school.

Every class visited the National Horse Racing Museum and completed their science trails.

Staff Saints
15 March · 🌐

We have had a great start to science week with Year 3 visiting the National Horse Racing Museum. Children made comparisons between human and horse anatomy. Every class will have the opportunity to visit the museum during science week.

