

Staindrop CE Primary School



PSQM Evidence File

Yellow – Starting Points

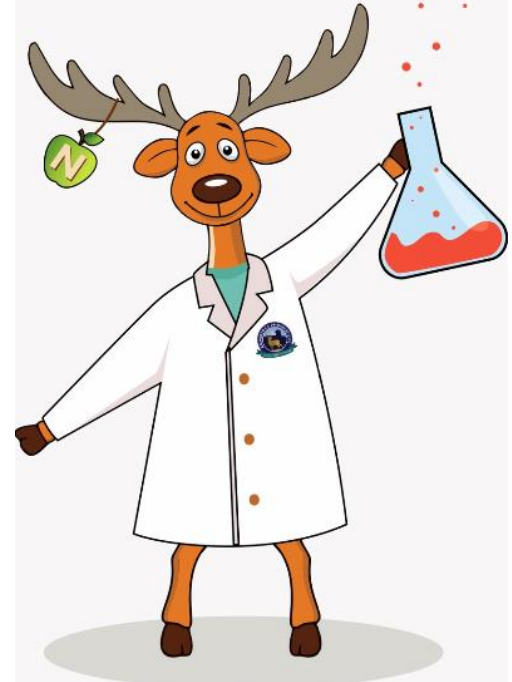
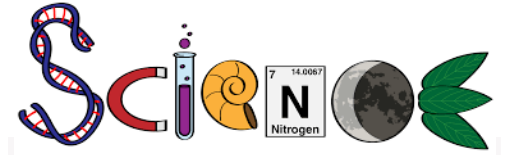
Green – Actions

Orange – Pupil Quotes

Blue – Staff Quotes

Grey – Next Steps

Scan my QR for videos...



“Through God’s love, we are the rich soil where roots grow and seeds flourish.” Luke 8: 4-15

Starting Point
Science has always been taught well, but the whole school vision and principles needed a revamp, to suit the needs of our children.

Action 1.
Pupil Voice – What does Science mean to you?
Children’s current views of science were gathered – both positive and negative. Similar ideas were grouped.

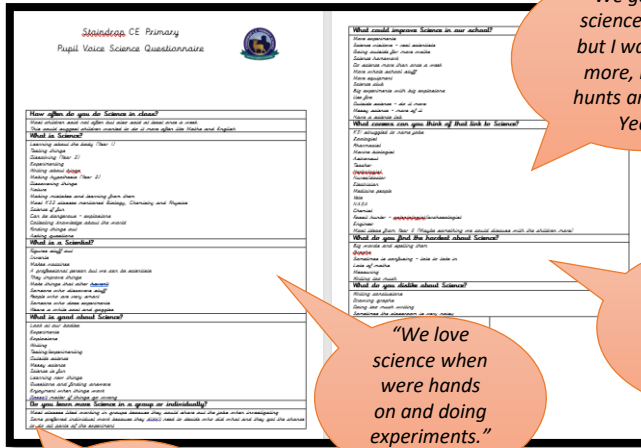
Action 2.
Staff Voice
What do we want our Science at Staindrop to be like?
Menti-Meter and Staff Meeting to discuss and share our ideas. Childrens views were shared and discussed. Staff then thought about what we should prioritise and include more of in our science teaching.

Go to www.menti.com and use the code 44 10 53 5

Science is good when....

collaboratively
we are hands on
I can test things
we work creatively
children discover things
we investigate
find out new things
we see things in real life
we work together
I understand it
rich discussion
we work outside
exciting
I can explore
take risks
children are inspired
we find explore
hands on
we work practically
we ask questions
we as questions
we are practical

“Having a clear set of science principles that we have all agreed on, makes our science lessons more focussed on what our children really want.” Miss Taylor



“We get to do science outside but I want to do more, like bug hunts and stuff.” Year 2



The creation and implementation of a clear vision for science @ Staindrop CE Primary School

SUBJECT LEADERSHIP A

1

“The competition has created a real buzz around science in our school and community.” Mr Whelerton

“I think we sometimes do a lot of writing in science.” Year 6

“We love science when we’re hands on and doing experiments.” Year 4

“Explosions and messy science is the best!” Year 3

Action 3.
Back to the children...
Menti meter to vote in each class. Top 8 were picked.

Science Competition Time
Can you design a Staindrop Scientist Mascot?

What makes these mascots great?
- Fun, Hilarious, Memorable
- Free the real mascot!
- 2018 Winner: Pippin, Marmoset- Surprise Science Prize for the winner and runner up!

The mascot you design will go alongside our Staindrop Science Principles so try and include these in your design.
- Your mascot can be human, animal, object or cartoon style.
- Your mascot needs a name.
- It needs to be clear that it links to Science
- You could label your design with the reasons why you have designed it in a certain way.

These are our agreed Science Principles!
As Staindrop Scientists,
- We are curious about the world around us
- We think of our own scientific questions to investigate
- We are hands on and practical
- We learn indoors and outdoors
- We are inspired by science in the real world
- We take risks and thrive on discovering new things
- We work both as a team and independently
- We talk about science using our expert voices

Science @ Staindrop!
At Staindrop CE Primary School, we seek to discover new things, are critical thinkers and are inspired by the world around us.

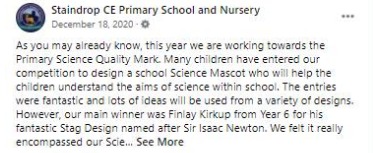
As Staindrop Scientists,

- We are curious about the world around us
- We think of our own scientific questions to investigate
- We work both as a team and independently
- We are hands on and practical
- We are inspired by science in the real world
- We learn indoors and outdoors
- We talk about science using our expert voices
- We take risks and thrive on discovering new things

Action 4.
Competition Time – spreading our principles to the wider community...
Design a mascot, which encompasses the principles. This went out as a whole school competition, therefore reaching out to our wider community. It was also shared with governors. The majority of pupils in school entered and there was a buzz.

“Everyone is now on the same page with Science.” Miss Allen Year 2

Action 5.
Shortlisting...
Science Book prizes for each class.
Staff then chose their favourite design from the shortlist. The Stag (which is on our school logo) was a popular design choice in many children’s work so we knew we wanted to encompass this.



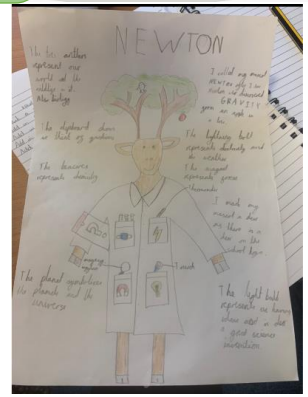
“I’m really proud of my design and can’t wait to see it around school.” Finlay

Action 6.
The Winner was chosen.
Design time with Mr Whelerton and then sent off to the digital designer.



Next Steps:
Newton and principles to feature on all new science books for 2021-2022. Newton will feature when posing questions and enquiries in science teaching.

“Thank you for choosing Finlay’s design. He worked really hard on it and had a reason for everything he included.” Parent



Starting Point

The love of Science needed to be present in the classroom and around the school.

Action 1

Every classroom has a science display that clearly shows the agreed set of principles. These are referenced to during lessons so the children are familiar with the principles in action

EYFS

Principles were added to displays in classrooms and to provision outdoors.

EYFS

Principles were developed with EYFS in mind to incorporate and link the characteristics of learning.
"Have our own ideas like Peter Rabbit."
"Be an explorer like Octonauts."
"Choose ways of doing like Mister Maker."
This has made our principles accessible, fun and meaningful for the younger children.



The creation and implementation of a clear vision for science @ Staindrop CE Primary School

SUBJECT LEADERSHIP A ... continued

Action 2

Communal display boards showcase Science across the whole school, including after school clubs.

Action 3

Teachers reference principles in planning and explicitly discuss during lessons with the children.



Pupil Voice – May 2021 "Science is everywhere in our school now!" Year 6

"You can't help but notice that we love science here at Staindrop." Mrs Bowman, Year 1

"Our work is displayed. Mine is on there and I'm proud of it!!" Year 3





Starting Point

During 2019 and 2020, we developed a new approach to our whole curriculum – COVID threw in a few more challenges and set us back a little. In 2020, at the start of our PSQM journey, science was an area that became a priority.

Action 1

SL looked at existing curriculum and rejigged to ensure it suited the needs of our school and missed content from Lockdown 1 was considered. Long term overviews were created for Biology, Chemistry and Physics. These overviews show key themes and where content builds on previous years.

Science Subject Story – COVID YEAR

All summer term key objectives/Science Units that were missed due to COVID and not covered in Home learning will be covered in 2020-2021 cycle. Teachers will either pre teach missing objectives or integrate into their current year groups planning.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Biology Animals including Humans (human body and senses)	Chemistry Materials (properties)	Biology Animals including Humans (animal classification)			Biology Plants
Seasonal changes covered throughout the year						
Year 2		Chemistry Materials (use and how they can be changed)	Biology Animals including Humans		Biology Living things and their habitats	Biology Plants
Year 3	Earth/Rocks Physics Chemistry Rocks		Opposites attract Physics Forces and Magnets	Mirror/mirror Physics Light and Shadow	Biology Animals including Humans	grow?/Biology Plants
Year 4	What is sound Physics Sound	Looking at States Chemistry (states of matter)	Teens and eating Biology Animals including Humans (Digestive system and teeth)	Living things Biology Living things and their habitats (classification)		Power it up Physics Electricity
Year 5	Out of this world Physics Earth and Space	Let's get moving Chemistry Forces		Material world Chemistry Materials	Growing up and growing old Biology Animals including Humans (growth)	Circle of life Biology Living things and their habitats (life cycles and reproduction)
Year 6	Let it Shine Physics Light	Electrifying Physics Electricity		Staying Alive Biology Animals including Humans (circulatory system)	Classifying Oriters Biology Living things and their habitats (classification)	We're Evolving Biology Evolution and inheritance

Action 2
Unit overviews were created for every year group. PLAN, Cornerstones and PSTT were used as a skeleton to develop our bespoke curriculum.

"I now have a much clearer idea of my objectives as previously I think I taught too much and dipped into some Year 2 objectives.." Mrs Bowman, Year 1

"I have found it really useful to know what teaching and learning has come before my units. It's given me a much clearer idea of how things build on one another." Mrs Shippen, Year 5

Year 1 – Animals Including Humans – Spring 1 and 2			
National Curriculum	Sticky Knowledge	Working Scientifically	Vocabulary
<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. ⓑ Identify and name a variety of common animals that are carnivores, herbivores and omnivores 	<ul style="list-style-type: none"> There are many different animals with different characteristics. Animals have senses to help individuals survive. When animals sense things they are able to respond. Animals need food to survive. Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy. 	<p>During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the progress of study content:</p> <ul style="list-style-type: none"> asking simple questions and responding to them that can be answered in different ways observing closely, using simple equipment performing simple tests identifying and classifying using their observations and ideas to suggest answers to questions gathering and recording data to help in answering questions 	<p>Amphibians, birds, fish, mammals, reptiles, carnivores, herbivores, omnivores, sight, hearing, touch, taste, smell, head, neck, ear, mouth, shoulder, hand, fingers, leg, foot, thumb, eye, nose, knee, toes, teeth, elbow</p>
<p>Prior Learning</p> <p>In Early Years children should: ⓑ</p> <ul style="list-style-type: none"> be able to identify different parts of their body. Have some understanding of healthy food and the need for variety in their diets. ⓑ Be able to show care and concern for living things. ⓑ Know the effects exercise has on their bodies. Have some understanding of growth and change. ⓑ Can talk about things they have observed including animals 	<p>Key Scientist</p> <p>Chris Packham (Animal Conservationist)</p>	<p>Future Learning</p> <p>In year 2 children will: ⓑ</p> <ul style="list-style-type: none"> know that animals, including humans, have offspring which grow into adults ⓑ know the basic stages in a life cycle for animals, including humans. ⓑ find out and describe the basic needs of animals, including humans, for survival (water, food and air) ⓑ <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>	<p>Possible Misconceptions</p> <p>Some children may think:</p> <ul style="list-style-type: none"> only four-legged mammals, such as pets, are animals insects are not animals all 'buggy' or 'creaky' creatures, such as spiders, are part of the insect group amphibians and reptiles are the same. <p>Secure learning intentions</p> <p>Can name a range of animals which includes animals from each of the vertebrate groups Can describe the key features of these named animals Can label key features on a pictorial diagram Can write descriptively about an animal Can describe what a range of animals eat Can sort and group animals using similarities and differences Can use simple charts etc. to identify unknown animals Can create a drawing of an imaginary animal labelling its key features Can use secondary resources to find out what animals eat, including talking to experts e.g. pet owners, zoo keepers etc.</p>
<p>How can we organise all the zoo animals? Classify animals they have seen/first-hand experience of, choosing their own way to do so. Classify animals they have first-hand experience of based on what they eat (e.g. herbivores, carnivores, omnivores). What is camouflage for? WAPPS Pool?</p> <p>TAPS ASSESSMENT Working Scientifically Animal Classification (Identify and classify)</p>	<p>Lines of enquiry</p> <ul style="list-style-type: none"> How can we organise all the zoo animals? Classify animals they have seen/first-hand experience of, choosing their own way to do so. Classify animals they have first-hand experience of based on what they eat (e.g. herbivores, carnivores, omnivores). What is camouflage for? WAPPS Pool? 	<p>Simple Test Can you leap like a frog? Why do we have teeth?</p>	<p>Use secondary sources to name animals seen in the local environment that they may not currently be able to name (e.g. birds: magpie, blackbird). Research what animals they have first-hand experience of eat.</p>

"I'll be honest, I used to just pick the WS skill that I thought fit the lesson and didn't focus on these skills enough.. This has been a massive help" Miss Davidson, Year 6

Biology KS1

- 1: Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- 2: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 3: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 4: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 5: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 6: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

Biology KS2

- 1: Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- 2: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 3: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 4: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 5: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 6: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

PHYSICS

- 1: Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- 2: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 3: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 4: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 5: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 6: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

Chemistry

- 1: Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.
- 2: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 3: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 4: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 5: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- 6: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.

"My lessons now focus on WS skills because it is clear what I need to develop and what the next steps are in following year groups." Mrs Neale, Year 3

Working Scientifically KS1

KS1	To ask questions	To plan an enquiry	To observe closely	To take measurements	To record results	To present results	To interpret results	To draw conclusions	To make a prediction	To evaluate an enquiry
Classifying	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)	Identify the objects to be classified (e.g. leaves, stones, shells, etc.)

Action 3
WS Skills have been mapped out progressively and matched to specific enquiry types. Previously, we didn't know which WS skills were being covered. PSTT was used to support SL in developing this.



Effective monitoring and improvement to develop science @ Staindrop CE Primary School

SUBJECT LEADERSHIP C LEARNING A

4

Starting Point

After listening to staff voice and looking at books, it was clear that teachers planned in their own way and there was no shared understanding or consistency of medium and short term planning.

Action 1

SL created detailed unit overviews using the PLAN matrixes then teachers created their own bespoke learning journeys with the support of the SL. Teachers have done this with confidence and have thought carefully about meeting the objectives but also weaving in meaningful enquiries and WS skills.

Learning journeys have become an integral part of all our subjects @ Staindrop. Now science matches this. Clear questions outline 1/2 lessons in the unit. Enquiries are embedded. These are shared with the children at the start of every new science unit.

Action 2

Monitoring showed that teachers were not aware of which WS skills have been covered throughout the year, so a simple tick sheet was created for teachers and a visual on classroom displays.

Working Scientifically (KS2)

	Add Scientific enquiries	Plan and set up an enquiry	Observe closely	Take measurements	Sort and record results	Present results	Interpret results	Draw conclusions	Make a prediction	Evaluate an enquiry
Enquiry	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

As a physicist, I can answer these questions...

1. What appliances use electricity?
2. Will the bulb in my circuit light up?
3. Can I add a switch to my circuit?
4. Which materials are used to make electrical circuits, and which materials keep me safe from electricity?
5. How has electricity changed the way we live?
6. Can I make my own circuit product?

ELECTRICAL SAFETY TIPS

- Use wires when plugging in, unplugging cords.
- Plug using front power 'key' & electrical equipment.
- Never stick toys or other objects into electrical outlets.
- Never go near or touch an outdoor electrical pole or wire that has fallen to the ground.
- Never touch during storms. As soon as you hear thunder or see lightning, get out of the water.
- Don't fly kites or remote control toys near power lines.

As a Chemist, I can answer these questions...

1. What is soil and why is it important?
2. Where does sand come from?
3. How are fossils formed?
4. What is the difference between Sedimentary, Metamorphic and Igneous rock?
5. How can we group rocks?

"As a new teacher at Staindrop, I have found having these learning journeys really valuable. They are clear, focussed and along with the teacher overviews, have given me the confidence to ensure I am covering all objectives as well as the enquiries and WS skills." Mrs Neale, Year 3

"The teachers make them bright and interesting. I look forward to the different enquiries." Year 5

"I like knowing what questions we will be finding the answers to." Year 4

Starting point

Enquiry was happening, but teachers were not confident and it wasn't happening in every year group. Children were not aware of the different types of enquiry or about the range of WS skills.

Action 1

Introduce PSTT enquiry symbols to staff.. The overview planning sheets also helped with this support. All staff agreed to put enquiry symbols on their 'toppers' in science books and introduced them more explicitly with the children during science lessons, increasing the childrens confidence in the different types of enquiry

"The training was easy to follow and clarified the different types of enquiry. I feel more confident at discussing them with the children now." Mrs Bowman, Year 1



Action 2

Staff soon showed confidence in enquiry and WS so it was time to increase the children's independence. We 'tweaked' the toppers in the children's books so that children had to identify which of the enquiry types they thought we would be studying in that lesson.

Tuesday 7th October 2021

How does the eye work?

As a biologist, I can label and describe the functions of the eye.

Task 1: Using the interactive eye on the screen observe, label the parts of the eye and their functions.

Task 2: Further explore the website to find out how the eye processes an image.

Task 3: Watch the animation of a cow eye.

Friday 11th June 2021

L.O: As a biologist, I can classify plants according to their characteristics.

What are the two broadest ways we can classify plants?

Write a definition for the two main groups.

Discuss where flowering and non flowering plants fall within these groups and complete the classification key with some specific examples.

Go out on a local walk and see which flowering and non flowering plants you can find and identify.

"The symbols have been a great visual for the children. It hasn't taken them long to become more independent in selecting the enquiry type, even in Year 2." Miss Allen, Year 2

L.O: As a scientist, I can help 'Teacher Man' build a meteorology house.

Watch around school and look at what the building is made of. Why do you think it is made from these materials?

'Teacher Man' needs to build himself a house that is interesting. Could you design an experiment to find out which material is best?

Are bricks absorbent?

Are bricks absorbent?

material absorbent water?

Yes No

"I can tick the best enquiry type for my investigation." Year 4

Action 3

Pupil voice highlighted that children thought there was too much writing in science. With this in mind, we introduced the PSTT WS symbols to the children and teachers to ensure that most lessons had a focus on just the one skill, therefore reducing the amount that children wrote down.

"Too much writing in Science can make it boring." Year 6

"By focussing on one skill, the pace of my lessons have improved and there is a clear focus.." Miss Taylor, Year 4

L.O: As a biologist, I can classify living things in different ways.

Classify herbivore omnivore carnivore

vertebrate kingdom amphibian mammal bird insect

invertebrate fish species characteristics key microscope

In groups classify the pictures of the animals, plants and bacteria in any way you like. Is there more than one way you can organise them? What other ways can you think of?

Have they given a name to the groups? How do you know the groups are different? How do you know the groups are different? How do you know the groups are different?

Once you have classified your animals, I would like you to evaluate your work. Do you think you could improve your key in any way? What are the questions suitable for the classification?



Effective monitoring and improvement to develop science @ Staindrop CE Primary School 5

SUBJECT LEADERSHIP C continued... BRITISH SCIENCE WEEK 2020

Starting point

Previously, Science Week has been focussed on by individual teachers, it wasn't enquiry focussed and there wasn't a whole school approach.

Action 1

Science Week 2020

In 2020, we ran a whole school Science Week, where we focussed on 'Biscuit Dunking'. A launch assembly provided classes with individual challenges and the SL mapped out the enquiry focus. This was a huge success! Science Enquiry symbols were introduced, but not embedded.

Action 2

In 2021, we wanted to build on the previous years success, however lockdown 'bubbles' caused some barriers when launching the week to the whole school.

Action 3

The barriers didn't stop us! The SL created a virtual launch assembly using Loom, which was shared over our learning platform in school. Children and staff were engaged with the Space theme and it kick started the week with a bang!

Pupil Voice – March 2020

"I loved doing the whole school biscuit challenge and it was great to see what everyone else did too!" Year 2

"I love science week!" Year 1

"Space is a really cool theme and I've watched the Mars Rover on TV too!" Year 4

"Our balloon powered rover was awesome. I love learning about space." Year 5

Staff Voice – March 2020
"Being given an enquiry to focus on was really helpful. More CPD on types of enquiry would help me become more confident in my teaching. Exploring this in science week was perfect."

"Thank you for an inspiring science week! Bella has come home each night full of what you have been doing...lots of tester parachutes have been made too!" Parent

Staff Voice – March 2021

"Science week has enhanced the children's learning rather than it being an add on."

"Another engaging science week! Well done all!" Parent

"We used accurate measuring to make the axels and then the distance it travelled." Year 5

Next Steps

We intend to build on Science Week in 2022. We aim for the children to be part of planning the week along with staff and leading some sessions as Science Ambassadors!

"I tried to make my design all about nature and biology because that's my favourite part of science." Year 4

"I included the NHS rainbow because loads of scientists have worked really hard to make a vaccine.." Year 5



Bella went home and conducted her own parachute enquiry, which followed on from what we were doing in class. She even got her younger sister and Dad involved!

Staff Voice – March 2021
"I could confidently choose the WS skill I wanted to focus on. I chose a skill that I wanted to assess, that I had taught in a previous unit. What a fun way to do it!"

Action 4

Due to staff confidence and previous training, they were able to independently choose the Space challenge that suited their children's interests and needs, decide on an appropriate scientific enquiry that would challenge and engage their children and then plan and deliver the sessions with their class. This would not have been possible without the careful mapping of skills and staff CPD.

Action 5

All classes shared what they had learnt that week on their Class Dojo pages. The responses from parents were very positive and children were excited to talk about what they had done. EYFS and Year 6 teachers discussed how their focus on parachutes was adapted for the 2 year groups. Year 6 focussed on the children being independent when planning and carrying out their enquiry.

In addition to this, staff chose a WS focus. Staff did this with confidence, due to previous staff meeting discussions and CPD.

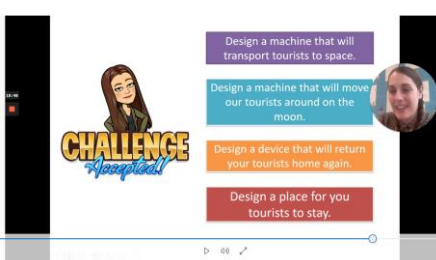


Action 6

Whole school competition launch!
Design a lab coat – Bayer Competition

This brought together all of the children's learning that week and the entries on Class Dojo were fantastic with over 80% of children entering.

Entries were chosen from KS1 and KS2 and sent off to Bayer. Winning entries were given science themed prizes.



Starting point

All staff are very proactive! SL needed to provide opportunities for staff to further develop their subject knowledge and skills in Science!



Science teaching @ Staindrop CE Primary School

TEACHING A, B and C

6



Action 1

Show staff Reach out CPD – training to be completed before each unit.



Action 2

Arrange CPD based on staff questionnaire and needs. Assessment/Enquiry/Explorify/Coverage

"I subscribed to ASE and receive the magazines. Some great ideas, which I've shared with staff where necessary. It has also kept me upto date with recent developments.." Miss Davidson, Year 6

"The quality and range of CPD resources have surprised me and have supported my teaching this year." Mrs Neale, Year 3

"Quality and free online resources have had a positive impact on our teaching and learning." Miss Davidson, Year 6

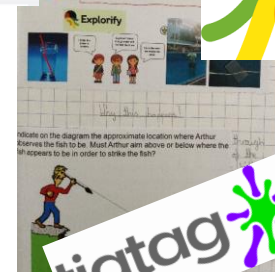


ASE documents to help support assessment. SL used PLAN guidance to create bespoke overview sheets for each class.



Action 3

SL to keep up to date with science developments, training opportunities and resources..



"During lockdown, these quick 20 minute you tube training videos were fantastic. I gained valuable knowledge, which I think confidently fed back to staff." Miss Davidson, Year 6

Next Steps

SL to continue developing science. Arrange CPD on questioning. Complete regular staff questionnaires to gauge where the training is needed.

"The children love Explorify. It's great as a teacher to use as a starter or to consolidate at the end of the lesson." Mrs Bowman, Year 1



"Really useful CPD that I could complete in my own time, which I love. Some great practical ideas that I can weave into lessons." Miss Taylor, Year 4

"I'm new to Year 2, so this gave me some super ideas of what to include and possible misconceptions." Miss Allen, Year 2



It's not fair - or is it?

a guide to developing children's ideas through primary science enquiry



making physics mat+



"A fantastic resource to use during staff training. Great to photocopy as examples for each year group. Very accessible for staff." Miss Davidson Year 6 and SL

"Great for safe Science. I also used other resources on the site.." Mrs Shippen Year 5

SL shared Ogden trust website with staff to help support enquiry – particularly in physics. STEM is used by most as a valuable resource after being shared during staff meeting. CLEAPSS login and password shared with staff during COVID to safe practice could continue.

Action 5

RQT to work alongside SL for development opportunities.

Online Facebook groups have provided a wealth of knowledge. Some fantastic resources and advice has been shared. SL has also shared good practice on these forums.

The impact of shadowing the Subject Lead for science has been that I have developed a far greater understanding of the science curriculum across all year groups, as well as the enquiry and working scientifically skills. Consequently, I have been able to plan for these better in my own class, which has subsequently improved children's scientific skills, discussion and questioning. My confidence in teaching and leading science has improved massively over the course of this year, which has meant I have been able to pass on knowledge to my student teacher. As a result, he is now more aware of the importance of science being practical and hands-on, as well as being confident in knowing how to cover the various skills that need to be taught across the units of work. Miss Taylor, RQT

"The proper circuit stuff was really cool to use! I made loads of circuits and even got the buzzer to work." Year 4

Action 4

Audit resources. Share Academy details for staff to arrange extra equipment. Purchase of quality non-fiction texts to supplement other areas of the curriculum.

Science equipment

AG Amanda Garton [Staindrop C.E. Primary School]
Thu 22/10/2020 17:33
To: p.marwood@staindropschool.com
Hi,
Here's the list of equipment we would like to borrow if possible.
clamp stands
newton meters
mass hangers (couldn't remember the name)
pulleys
levers
gears
Thanks for your help,
Amanda

Reply Forward



Science is enriched by wider opportunities @ Staindrop CE Primary School **7**

CROSS CURRICULAR PLANNING A

Action 4

In Year 5 and 6, the teachers were hooked and the children were enthused, so the unit lasted nearly 5 weeks, resulting in some high quality English, Science and Art work.

Starting point

Some cross curricular teaching was happening during lockdown, but this was restricted. As a staff, we wanted to address this when the children returned back to school.

Action 1

WORLD BOOK DAY – WITH A SCIENCE TWIST.

As a staff, we decided that we wanted to link our Literacy and Science. Staff were keen and sent away to choose a focus text– when staff regrouped a female scientist them was chosen!

“Teaching blogs have given me a wealth of ideas and resources to share with staff.” Miss Davidson, Year 6/SL

Posters, dioramas, small worlds were created, inspired by the texts.

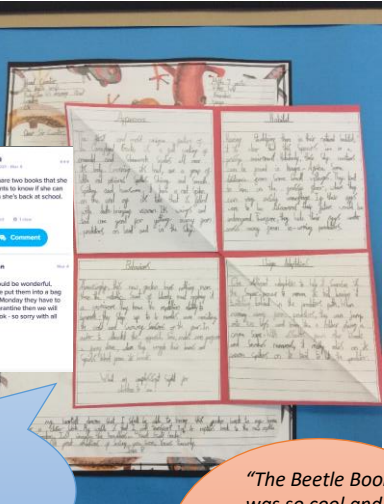


“The reading challenges were fun and I loved my David Baddie book.” Year 5



Children were inspired to find out more at home. Even Year 1 children wanted to share texts about inspirational scientists.

“This text was such a success that I will be fitting it into the curriculum next year too.” Miss Allen, Year 2



Portraits were created, which was a fantastic way for the children to find out more about the scientists.



Miss Davidson
Miss D 2020-2021
Mar 14



Action 2

In the weeks leading up to WBD, the whole school planned a 1/2 week literacy unit on the focussed science text. In some year groups, the Science unit fitted and was taught alongside. In other year groups, content was revisited, which had been missed in lockdown or needed addressing from previous year groups.

“I was blown away by the quality of the English work that the children did at home. The book and the ‘real life’ link really hooked them in.” Mrs Shippen, Year 4

“The Beetle Book was so cool and I learned loads of science words to help me sound like an expert!.” Year 6

“As a SL, I was confident that the teachers could make meaningful links in cross curricular learning.” Miss Davidson, Year 6/SL

Topic title - alliteration
Sub-headline

Alternative headline for discovery

- Dangerous, deep-sea discovery
- Unknown species spotted
- Ferocious species found

Synonym - unknown

- Unspecified
- Unidentified
- Mysterious
- Unusual
- peculiar

Alliteration for location

- Cornwall's coast
- An Indonesian island
- Brazil's beach

Dangerous, Deep-Sea Discovery!
Mysterious species found 200m from Cornwall's coast.

Action 3

Online Loom English lessons were created by each class teacher to kick start the units at home. The English skills were focussed on and the Science blossomed from the text.

What's special about a **Beetle**?

Beetles are the most diverse group of insects on Earth. There are over 400,000 species of beetles, making up about 25% of all known animal species.

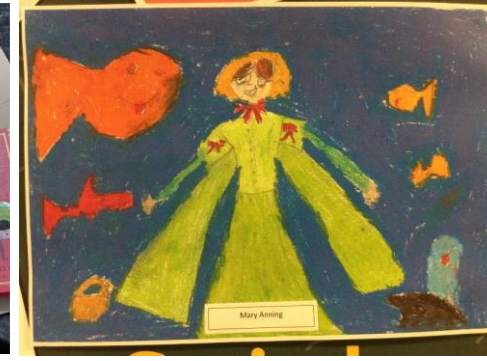
Beetles have a hard, protective shell called an exoskeleton. This shell is made of chitin, a tough, fibrous material that is lighter than wood.

Beetles have six legs and two pairs of wings. The forewings are called elytra and are used for protection. The hindwings are used for flight.

Beetles are found in almost every habitat on Earth, from the deepest ocean to the highest mountains.

Beetles are also important to the environment. They help to decompose dead matter and recycle nutrients. Some beetles are also used in agriculture to control pests.

Quality non-fiction texts were shared to gather expert language.





Science is enriched by wider opportunities @ Staindrop CE Primary School **8**

CROSS CURRICULAR PLANNING A continued...

Starting point
We knew we covered science in other areas of the curriculum well, but it wasn't clear or consistent across year groups.

Action 1
Work with the curriculum lead when redesigning the curriculum to ensure that topics, where possible and where meaningful link so the children are experiencing Science across other subjects.

Y2- LONDON'S BURNING DRIVERS:

- BEYOND LIVING MEMORY:
 - KNOW SOME FACTS ABOUT AN EVENT THAT HAPPENED LONG AGO, EVEN BEFORE THEIR GRANDPARENTS WERE BORN.
 - KNOW WHAT WE USE TODAY INSTEAD OF A NUMBER OF OLDER ARTIFACTS.
 - KNOW 3 WAYS THAT CHILDREN'S LIVES TODAY ARE DIFFERENT FROM THOSE OF CHILDREN WHO LIVED A LONG TIME AGO.

Enhancers:

- HUMAN AND PHYSICAL:** EXPLAIN SOME ADVANTAGES AND DISADVANTAGES OF LIVING IN A CITY.
- LOCAL KNOWLEDGE:** KNOW THE NAMES OF AND LOCATE THE FOUR CAPITAL CITIES OF ENGLAND, WALES, SCOTLAND AND NORTHERN IRELAND.
- MAP SKILLS:** KNOW AND USE THE TERMINOLOGY: LEFT RIGHT BELOW NEXT TO.
- CHEMISTRY:**
 - KNOW WHY A MATERIAL MIGHT/MIGHT NOT BE USED FOR A SPECIFIC JOB.
 - KNOW HOW MATERIALS CAN BE CHANGED BY SQUASHING, BENDING, TWISTING OR STRETCHING.
- WORKING SCIENTIFICALLY: SEE PROGRESSION**

DT-Tutor Houses
Our Locality fire in the forest school, bedtime night.

Action 2
In English, Science texts appear in all year groups throughout the year. High quality writing is produced in Science. Vocabulary is set during spelling sessions.

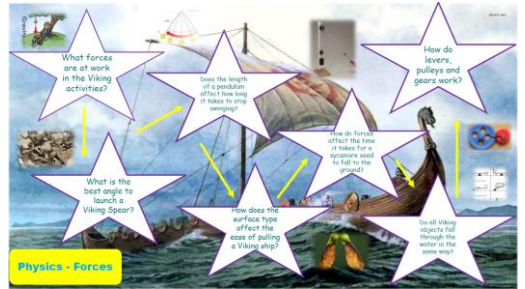


Autumn Term	Spring Term	Summer Term
Y1: Top of the Mountain, Dogger, Dinosaurs and the Stone Age, Naughty Boy, Traction Man	Stone Age, Lull and Round, The Stone Age, Empress's egg	All about, The sign house keeper's lunch, The sandstone, The sand horse, The giraffe road
Y2: Toby and the Great Fire of London, Harold Henry, The magic paper airplane, The story of a flower girl	Yoga, Tigger Ties, Harold Henry, The sign and the mouse, Harold Henry	Tales of Beatrix Potter, Baking bread, All about cakes, The magic finger
Y3: Ugg boy genius of the stone age, Bob beneath my feet, Stone age bone age	The Tubs, Ugg boy genius of the stone age, Journey: Aaron Becker	The Hodgepodge, The Stone Age, The Book makes the Tazekamun
Y4: Odyseus, Green myths, Who Let the Gods out	The Great Choochoo, Charlie and the chocolate factory, The last thing, The explorer	Shedding rhymes, The explorer, Stories of survival, Jumping, The chase
Y5: Trash-Andy Molligan, Hares-Look, Ruler, Ruler	Boy in the bush, Trash-Andy Molligan, Hares-Look, Ruler	Wing Boy, Donald Duck, Murgop, Tell me a dragon, Dragon Poems, Foodland
Y6: Boy of the deep, Spider and the fly, Great Train, The Highwayman	War is over, War game, Lullaby from a lighthouse, Russel Banks, Colour story, Goodnight Mr Tom	My heart boy, The explorer, Stories of survival, Jumping, The chase

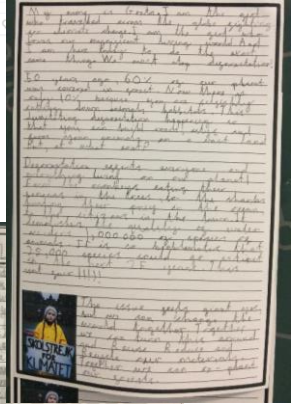


"It made the heart seem real and it was great to explore the circulatory system.."
Year 6

"I love finding out more on the computers. I found out loads about Attenborough!"
Year 5



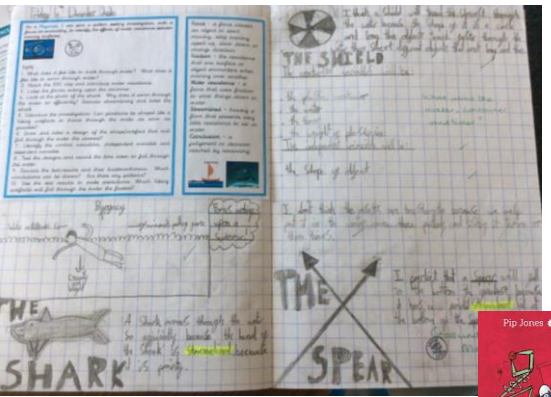
Science skills are mapped into the topic over views. Science lessons often link to the topics. E.g Year 5 forces is linked to viking ships. This makes learning meaningful for the children and puts Science into context.



Action 4
ICT is used to enhance and engage within science lessons, after school clubs and at home. Research, augmented reality and coding have proved very popular!



"I made the robot follow my path!!"
EYFS



EYFS
Stories are regularly used to engage children into topics, which sparks off sentence writing and independent tasks in continuous provision.



QUIETAM ET FOLIUM

PEPULUS FEATURING

ARK TAKES!

MAJORCA MAT

ATTACKS

HOW TO PLANT A SEED

ORDERING WORM LENGTHS

How to plant a seed

1. Fill a pot with soil.

2. Push a hole in the soil.

3. Put a seed in the hole.

4. Cover the seed with soil.

5. Water the soil.

Ordering Worm Lengths

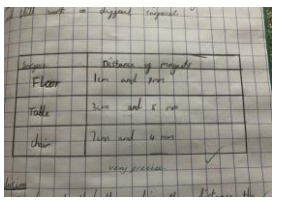
16 cm

12 cm

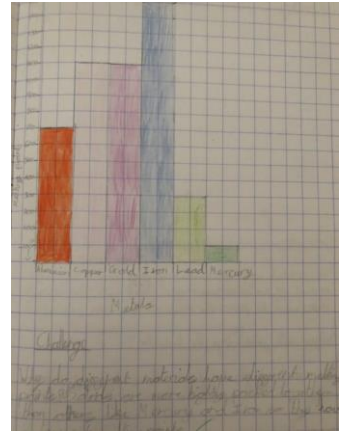
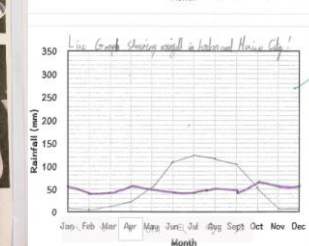
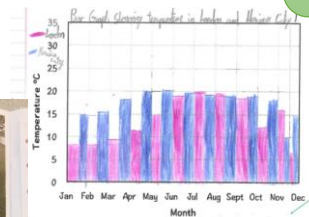
8 cm

6 cm

EYFS
Tallies, pictograms, measuring and use of physical resources are used to combine Maths and Science learning. Children are practical, engaged and can make connections with their learning.



Action 3
Maths skills are practiced and developed during Science. Graphs here show Year 5 and Year 3



Starting point

COVID meant that our outdoor space was more valuable than ever. @ Staindrop, we embraced this!

EYFS

Children are always outdoors in the Early Years. The outdoor space has been developed to include specific zones where children can engage in science, such as a natural area to attract mini beasts and piping to explore gravity.



"I'm always amazed by what the children discover outdoors. It sparks off so much independent learning." Miss Alexander, EYFS



Science teaching @ Staindrop CE Primary School
OUTDOOR LEARNING AND FIELD WORK C

9

Year 2 created a bug hotel in the school grounds after an enquiry they did in class. They used lots of natural resources that they collected from the school grounds. There were lots of safe places from predators.



Action 2
Ensure children still conducted field work, despite COVID.
Year 1 and 2 identified different wild flowers both around the village, in school and at home.



"Science is way more fun outdoors. I now know loads about our school grounds!" Year 6



Year 1 planted seeds in school and they took them home to grow. They send regular pictures in through Class Dojo to update Mrs Bowman on how they are doing!



Year 1 children took this learning home and observed and took observations of trees in their gardens!



"I loved looking at the trees in my village. There was a sycamore like Sandra!" Year 1

Year 6 carried out a leaf classification enquiry. We are very lucky to be surrounded by more than 15 different species of tree in our school grounds and forest area/



Year 6 classified buttercups using a classification key and Year 2 conducted a daisy count enquiry

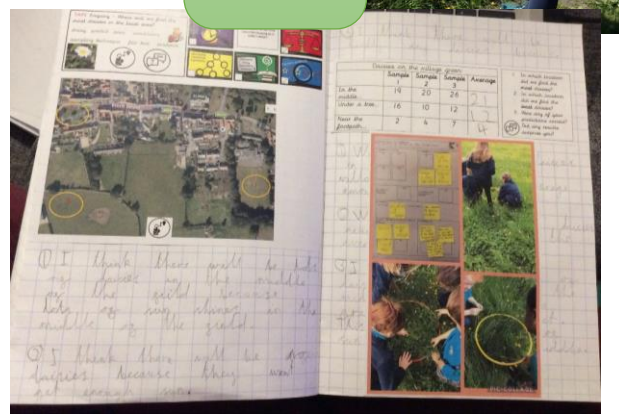


Action 1

Getting to know our outdoor space. Year 1 have been looking at the seasons throughout the year and they even adopted a tree, which they have been observing closely in their learning journey book.



"Adopting a tree has engaged the children throughout the year." Mrs Bowman, Year 1



Species	Count	Notes
Buttercup	15	
Daisy	10	
Other	5	
Total	30	

Species	Count	Notes
Buttercup	15	
Daisy	10	
Other	5	
Total	30	

Starting Point

Enquiries were mainly led and facilitated by the teacher. We have worked hard to pass this over to the children and make them more independent.

Action 1

A range of enquiries are mapped out into the curriculum (using Cornerstones, Ogen Trust, STEM and ASE.) Teachers encourage questioning and the identification of enquiry and explicitly teach the WS, allowing then for children to independently practise.

EYFS

Science, which falls into understanding of the world, is accessed independently by children during continuous provision on a weekly basis. Adult led Science happens weekly to encourage questioning, prediction and sparks curiosity.



Science learning @ Staindrop CE Primary School
LEARNING A (Enquiry focus) **10**

Next Steps

To further increase children's independence when carrying out enquiries by having an equipment trolley that children can use to select from

Reception Weekly Plan
Week Commencing: 07/06/21

Day	Monday	Tuesday	Wednesday
Topic	History	Science	Mathematics
Learning Objectives	Understand the new topic and discuss any questions they have about characters in the book from the story.	Recognising amounts to 10 in different ways. Use one more than one ten to find 11.	Counting to 20 accurately. Use one more than 10 to find 11.
Activities	Read the story of the week those who work alongside them to read and understand the story.	Using a number line to find 11 by counting on from 10.	Counting to 20 accurately. Use one more than 10 to find 11.

Post-it investigation planning.

Building prototypes, testing, then improving prototype before carrying out our investigation

"I love the practical Science." Year 4

"The symbols are easy to understand ." Year 5

Action 2

Post it note planning was introduced and has been well received by staff and children. Limited writing and maximum impact.

"That was quick...is that the planning done?" Year 6

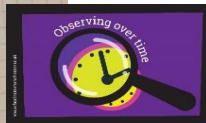
"Miss D, that post it planning worked a treat. It really helped the children understand the different variables that could be changed. Miss Allen, Year 2

"It's been great to see the children identifying the enquiries independently." Mrs Neale, Year 3

"I like moving the post it notes. It's helped me understand what I keep the same and what I can change.?" Year 3

"A great way to introduce and remind the children about controlled and independent variables." Mrs Shippen, Year 5

Pattern seeking



Food Standards Agency guidance

Make your own Solar System - NRich Investigation

Can you make a model Solar System, so that both the sizes and their distances from each other and the Sun are all to scale?

Use the following resources:

- toilet roll
- a range of spherical objects
- a large space
- data on the diameter and distance of planets from the sun

Planet	Average distance from the Sun (million km)	Corresponding number of sheets of toilet roll
Mercury	58	0.8
Venus	110	1.5
Earth	150	1.5
Mars	230	2.3
Jupiter	780	7.8
Saturn	1,430	14.3

Research using secondary sources

Comparative & fair testing

Leaf fact file

Leaf character table

Identifying, classifying & grouping

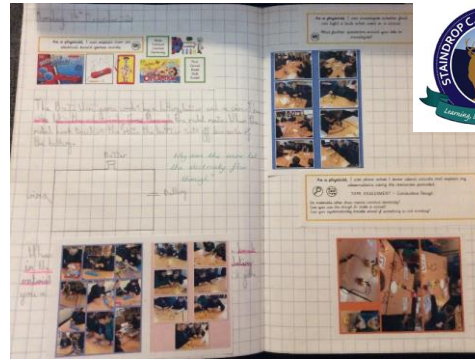
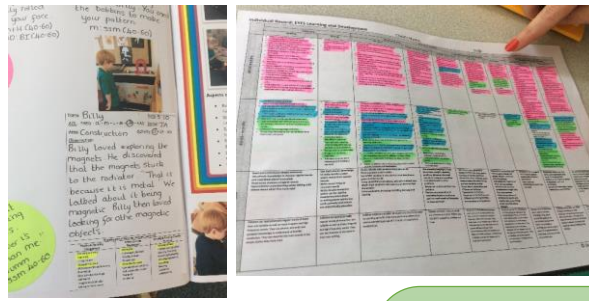
Leaf fact file

Leaf character table

Identifying, classifying & grouping

Starting point

Teachers were not confident in assessing science. As a staff, we knew this was an area that we really wanted to focus on. COVID made this a little difficult and a bit fragmented, but we soon developed a mixed approach with great results



Science learning @ Staindrop CE Primary School **11**

LEARNING B (Assessment Focus)

EYFS

SL felt the EYFS had the right approach to assessment. They provide opportunities in provision for children to talk and think like scientists, they teach explicit skills in focus groups and they listen to the children and make notes. This inspired the SL to run a similar approach throughout the rest of the school.

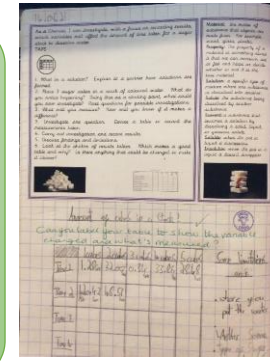


EYFS

Termly overviews are highlighted. This is done with confidence by EYFS team through observations in continuous provision, guided work and significant comments made by the children.

Action 4

TAPS assessments were introduced to assess the children WS skills. These are identified on the overview sheets by the SL but teachers are trusted to tweak or amend if they feel it would be beneficial.



Action 1 Teacher Confidence and Knowledge

SL introduced staff to the ASE documents with example materials on for assessment

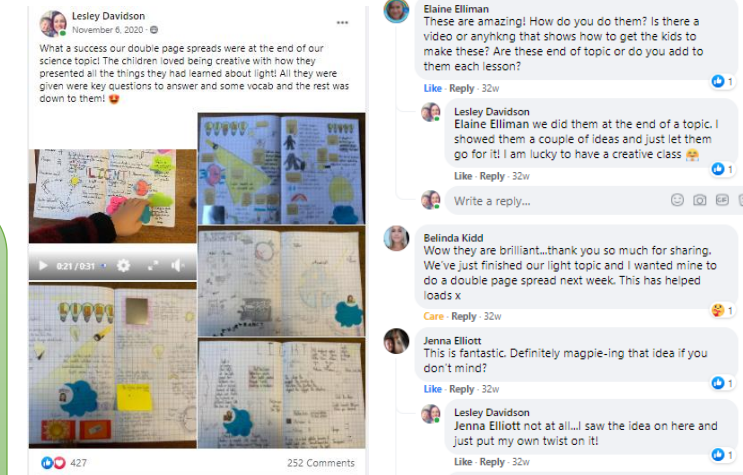


"This has given me ideas for lessons and is also clear what I can look out for.." Mrs Bowman, Year 1

"The science quizzes we do every week really help me to remember what I learnt the week before. Sometimes I don't do as well as I wanted to, but my teacher always goes over it all before we start the next lesson. I remember even better after this." Year 3

Action 5

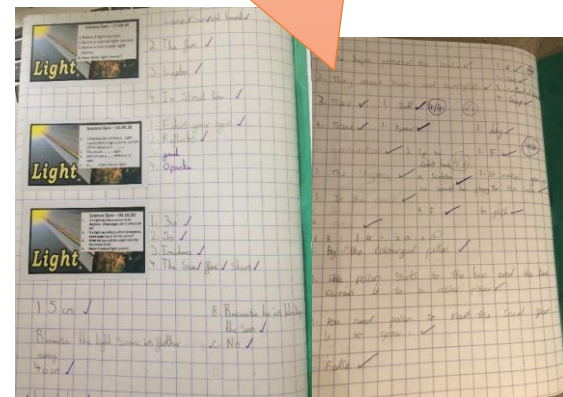
Double page spreads were introduced for the children to show their knowledge from the unit. Key questions are given as a stimulus, along with pictures, but the presentation is left to the individual. This gives opportunities to assess children's knowledge and also use of scientific vocabulary. Examples were shared on social media and the response was incredible.



"Quick and simple to pass onto the next teacher." Miss Taylor, Year 4

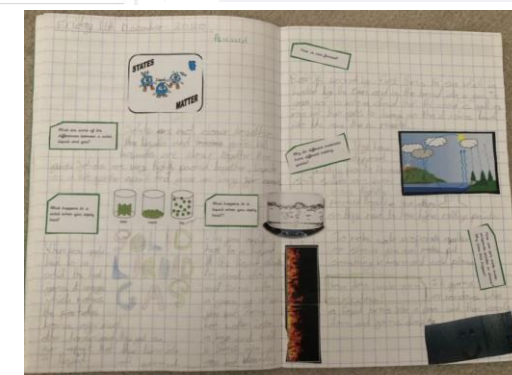
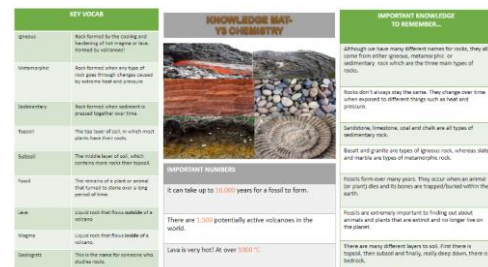
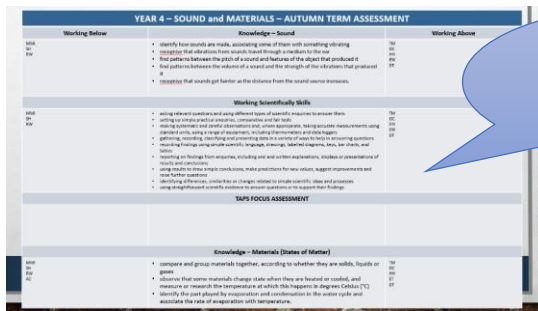
Action 3

'Pop quizzes' started each lesson to recap previous knowledge. Bespoke Knowledge mats are sent home for children to learn 'sticky knowledge' from the unit.



Action 2

Assessment sheets were created for the end of each unit to mark down initials of children working below or at the ARE.

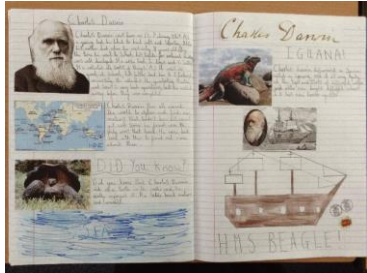


Starting point

Previously there was little parent engagement and pupil voice highlighted that children had a mixed and inconsistent understanding of Science Capital. Increasing this became a priority and COVID helped us on our way!

Action 1

Map key scientists into the curriculum that link with units. Teacher to focus on a key scientist



Action 2

Use of Class Dojo during COVID and beyond to share science work with parents. We quickly found parents posting, along with their children, independent science that they had carried out at home.

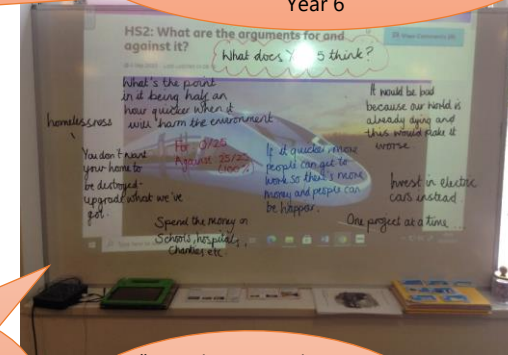


Action 4

Keeping up with the news. First news and BBC Newsround is used to spark discussions and keep children aware of science in the real world. Through thoughtful Friday, Votes for schools, PSHE and Picture this, topical news is used to inspire the class and debate science issues.



"The newspapers are a great way to keep up with what's happening in the world. Some stories, like the melting icecaps, have really made me think about what I can do." Year 6



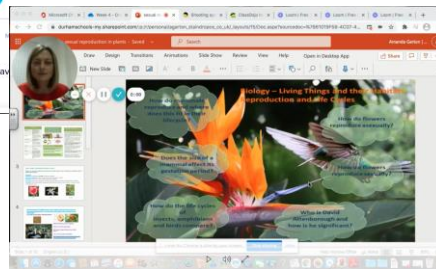
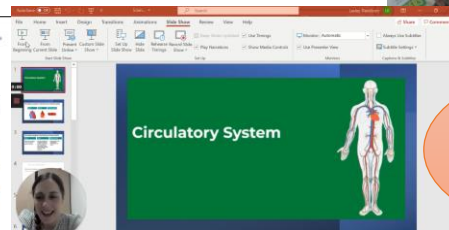
"Debating these issues in class is really good fun. I love listening to other people's opinions." Year 5

"Greta has inspired me to appreciate nature and wildlife more. We've planted lots in our garden this summer for insects." Year 2

"Linking our RE unit on the environment was made real after discussing the recent G7 meeting. Children are increasingly more aware about the impact they can have on the environment which is amazing." Miss Davidson Year 6

Action 3

Quality online Loom lessons were created by teachers to engage learners at home. This allowed for the full curriculum to still be taught during Lockdown!



Marcus Rashford and Greta Thunberg given Gold Blue Peter badge



Science learning @ Staindrop CE Primary School LEARNING C – SCIENCE CAPITAL and PARENTAL ENGAGEMENT 12



Should we give half of Earth to wildlife?



VOTES FOR SCHOOLS
Inspiring Pupil Voice

"I loved designing my rover in Science week, It made it real because it was on the news." Year 4



Next Steps

GSK project for Year 6 in September. All resources provided and lessons to be delivered online. Staff training will be held at the end of June for teachers taking part.

Year 6 would normally attend a local careers day but due to COVID this didn't happen. Instead, they will be taking part in sessions at school. This raised awareness of science related jobs.



G7: Sir David Attenborough says leaders face biggest decision in history

© 19 Jun 2021 Last updated at 09:59



Sir David Attenborough has told world leaders at the G7 that they are facing the most important decisions in human history when it comes to climate change.

Starting point

Pupil voice highlighted that our children wanted to do more 'fun science' out of science lessons and fondly recalled events when we had the Science Guy in school and the previous years Science Week.



Science is enriched by wider opportunities @ Staindrop CE Primary School **13**

PROVISION OPPORTUNITIES DEEPEN AND EXTEND LEARNING C

Action 1

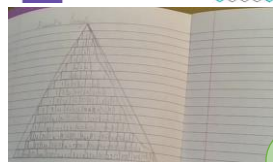
COVID meant science club couldn't begin, so challenges that children could complete at home with their family during lockdown were provided.

The first was sent out at Christmas and had a response from around 50% of pupils.



Action 2

Class teachers ensured that regular Science homework was being sent out during COVID to improve engagement and this was a huge success with almost 80% of pupils completing tasks sent.



Action 9

To make it meaningful and purposeful for the children, we signed the children up to complete CREST Award over the sessions we run. Children play a part in picking the themed activities for the following week and where possible we have the children outside, hands on and active!

Next Steps

Encourage the children to lead sessions during science club. Integrate the CREST award into the curriculum overview so all children have the opportunity to gain the award throughout the year during science lessons.

"After discussions and support with Academy staff, I now feel confident to lead the heart dissection." Miss Davidson, Year 6

"I love Science club. We get to do fun science." Year 5



Specialist equipment has enhanced learning in science. Electricity equipment for Year 4 and 6, levers and gears in Year 5. We value good communication with Staindrop Academy.

STAINDROP MASTERCLASSES **zoom**
Join our MasterClasses from 4-4.30pm on a Wednesday evening. The sessions are tailored designed to consolidate students' current knowledge from Key Stage 2 and challenge them to go further! Zoom codes to be provided for schools who sign up for the events.

- MATHS** LESSON: Defendable market? All things marketing from the absence of having the same birthday to someone else to how to write a car and see a good to a government. Plus your own sign and let the Maths help you!
- ENGLISH** LESSON: Core Reading skill. How do writers create hidden messages in text? What are the key signs when you read a text? How do you know if you are a good reader? What are the signs when you read a text? How do you know if you are a good reader? What are the signs when you read a text? How do you know if you are a good reader?
- SCIENCE** LESSON: Light. What is light? Where does light come from? Where does it go? How does it travel? How do we see light? How do we see light? How do we see light? How do we see light?

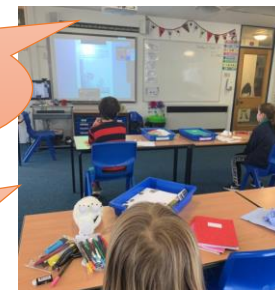
Action 4

It was launched to the children at home and at school via a LOOM video. Over 80% of children in our school took part! We had children from all age groups taking part in the live BBC lesson.



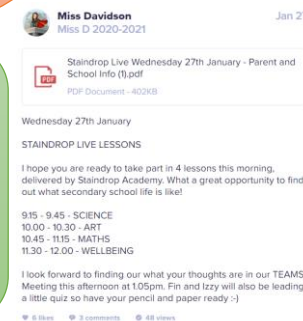
"There are lots of teachers at the Academy, but I feel like I already know them a little bit after the online lessons.." Year 6

"It's great going to the Science lab at the Academy and using the cool equipment." Year 5



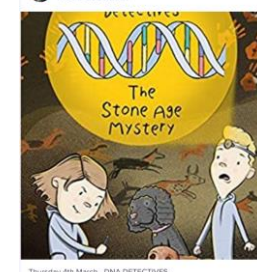
Action 8

Once all children were back in school, we started to provide an after school science club for all ages. This has proven to be very popular so in September we are looking at holding clubs for KS1 and KS2 separately.



Action 7

Over the past couple of years, strong links have been made with the local secondary school. COVID has meant these sessions went virtual, but they still happened and has proven vital for our Year 5 and 6 pupils.



"It was a pleasure to speak the Year 6 children about my work. It gave me an opportunity to stress the importance of trees on our planet." Parent, Year 4 and 6

Action 3

Whole School Great Garden/School Birdwatch...COVID style!

What an amazing response we had from the children in school and the children at home.



Action 5

Another whole school homework project was launched, linked to the bird watch but with a DT twist. Many children got involved in designing and making bird feeders to tempt new birds into their gardens and into the school. We had a great response from our parents.



Action 6

COVID meant we had to get creative with visits and enrichment. We took this in our stride and booked onto virtual Zoom lessons and arranged bespoke enrichment such as Zoo lab.



Starting point

Outdoor learning has thrived this year and children have voiced how much they have enjoyed being active scientists outside. The aims of our curriculum are to encompass outdoor learning.

@ Staindrop, we listen to our children and want to provide even more outside opportunities for them.



@ Staindrop, we are always looking towards a bright future...

14

NEXT STEPS FOR OUTDOOR LEARNING in 2021-2022...

Through God's Love, we are the rich soil where roots grow and seeds flourish. Luke 8: 4-15

Why? We want children to achieve the aims of our curriculum as happy, healthy global citizens...

Relationships, team work and communication

Confidence, self esteem and mental wellbeing

Risk taking, perseverance and problem solving

Knowledge, appreciation and respect for nature and the environment

How? Outdoor education opportunities are embedded throughout our curriculum...

EYFS Outdoor provision
(EYFS teacher – Level 3 Forest School leader)

- Continuous provision
- Sensory play
- Seasonal changes
- minibeasts
- Den building
- weather
- Role play
- Water play
- Loose parts play
- Sand play
- Mud kitchen
- Natural materials
- Digging and growing

Forest School sessions
(Forest school Level 3 leaders in KS1 & KS2)

- Fire lighting
- Classification/id entification
- Woodland arts and crafts
- Health & Safety
- Conservation
- Tree climbing
- Den building
- Mindfulness/Ref lection
- Campfire Cookery
- Imaginative play
- Team building games
- Tool work/Woodcraft

Fieldwork/ Curriculum study
(mapped across the curriculum)

- Geographical fieldwork studies
- Local environmental work
- Science investigations
- Living History
- Natural Art
- Creative writing
- PE/Orienteering

Outdoor creative spaces

- Worship/Prayer spaces
- Outdoor reading spaces
- Astro Turf
- Mindfulness garden
- Allotment/Anderson Shelter
- Hills/Mounds
- Outdoor play equipment



Action 3

Create a mindfulness space outside the Year 6 classroom.

At drop up and pick up it is a busy space. It needs tidying up. During the school day, it is a haven to wildlife. Children had the idea to create it into a quiet and relaxing space where they can observe wildlife, attract bees, plant seasonal produce and 'chill' to the sound of birdsong, wind chimes and maybe a water feature. This is an exciting new project to start the new academic year.

Forest school is LOVED by children and staff. Children enjoy the area in all seasons and use it throughout the curriculum

Action 1

The Forest School lead wants to develop the 'bog area' which is currently fenced off and create a pond to encourage new wildlife. This will allow us to carry out field work on site such as pond dipping.



Action 2

Outdoor Training CPD for staff

Excellent staff training, consequently led to more ideas that we wanted to put into action in our outdoor space!.

Inspiration from the training

- Online resources from Opal to be used in the curriculum for classification.
- Forest school session focus to make a range of bird boxes.
- Section off a wild flower planting area.
- Plant willow near the fenced area.
- Order trees to create a boundary.
- Arrange for some younger trees to be planted and some mature trees to be cut down to allow for more sunlight on the forest floor.
- Position the wild life cameras at the far end of the forest (2 young tawny owls were spotted)

