

WESTFIELD PRIMARY SCHOOL

2020

Science Subject Report

Subject	Science	Date	December 2020	
Report prepared by	Olcay Tokunaga			
Overview of the year: Sept 2019 - Dec 2020				

This year has been impacted by COVID 19, with the school going into Lockdown in March, although being open up for 50% of the school, in all year groups by July 2020. Despite this, the main aim of this year was to increase teachers' confidence in delivering Science and raise its profile within the revised creative curriculum.

Despite difficulties, this year has been a successful re-engagement for Science across the School. We have had more teachers engaging with planning and delivering better quality Science lessons, including practical ones, with renewed confidence. During Lockdown, all teachers ensured that Science was still planned and was put in to Home Learning each week. At Westfield Primary School, we continue to set high expectations for children to be confident and enthusiastic Scientist.

Curriculum: Intent, Implementation, Impact

<u>Intent</u>

For children to have a depth and breadth of scientific knowledge and understanding with experiences using scientific enquiry skills. In doing so, pupils will be able to take it with them into future life, with a love of learning and the necessary skills and knowledge appropriate to their individual needs; and a curiosity and interest in Science.

Implementation

The planning of Science is intrinsically connected to the promotion of curiosity, alongside the necessary skills and knowledge to ensure a strong foundation for a successful scientific future. Our curriculum is implemented through discrete teaching, within a thematic framework, where appropriate. Teachers then ensure that the children apply their knowledge and understanding when developing ideas, investigating and discovering new ideas, and then evaluating them.

Within lessons, the children have the opportunity both to work on their own as well as in small groups and to collaborate with others, listening to other children's ideas and treating these with respect.

<u>Impact</u>

In Science, we aim to create and cover children's curiosity. This involves giving children opportunities at school that they may have not had before. For example: in school workshops, school trips and creating creative curriculum links with other subjects and topics.

Pupil voice demonstrates children are fostering an enthusiasm and curiosity for Science. One child from Year 4 said, "I love Science! We get to do experiments and test stuff. It's really interesting and I found out new things."

Our curriculum progression documents, overviews and rationales provide an overview to enable the subject leader to monitor implementation, using the skills progression document alongside the QA procedures to monitor impact.

<u>Next steps:</u>

Next year, we will look at more opportunities to enhance learning, and awe and wonder are given through additional experiences, such as themed Science week, national initiatives (e.g. Outdoor classroom day), workshops, Bird Box project and clubs.

The focus will be on productive assessment, planning monitoring and looking for differentiation in our Science books. Therefore, in September we have subscribed to a 3 year licence with Collins Connect. It is an excellent Science Scheme used by many schools. By doing this, at WPS we will have a consistency teaching in Science across the whole school. The scheme has detailed planning for each topic from Y1 to Y6 and all activities are differentiated for all children.

In addition to this, we are signing up to the "Bird Box Project", which is an exciting way to inspire and connect children with nature. Throughout the year our school will be able to stream live video from the bird box, feeder station and other webcam wildlife habitats.

We will be able to access hundreds of Teaching & Learning resources supporting topics in the new Primary Science curriculum to engage children in Science in more fun ways.

We will also ensure children are able to articulate and explore a wider variety of open-ended questions. We will encourage more independent inquiries conducted by children across year groups.

We will continue to monitor recorded evidence in Science books.

5 Key messages of the year:	What Performance Information is monitored? What are the 3 questions are you considering for future developments?		
 Increased confidence from teachers when teaching Physics subjects. Science CPD staff meeting broaching ways to implement more child-led investigations in lessons. Continue to do book looks, pupil voice and learning walks. Ensure staff have subject specific vocabulary on their topic boards each term. Develop a consistency of teaching in 6 week blocks. 	 Key Questions: 1. How do we reflectively assess Science across the school? 2. What Science opportunities to we provide for Westfield children including DAP and SEND? 3. How do we ensure there is enough time to cover the Science curriculum each half term? 		
What is progress like within this subject?	How much funding did you receive this year and what was it spent on?		
This year there continues to be evidence to show the children's engagement and enjoyment of Science has improved, thus promoting better progress within the subject. New Science subscription will allow children to show and develop a sense of natural curiosity.	N/A		
How does your subject area help to further develop SMSC (Learning for Life) in and around the school?	How are Fundamental British Values promoted within your subject?		
 Awe and wonder - developing children's love of Science Giving children real-life experiences of investigations Giving opportunities for learning outside the classroom 	 Mutual respect - working as a team in investigations, sharing ideas and questions, accepting other's points of view Individual liberty - opportunities to express their ideas freely 		
If you could change/ develop one thing in this area what would it be and why?	What will be the three key resources you will be bidding for this year and why?		

Subject Web: Subject Web: Why do we teach what we teach?

Every child is entitled to a broad and balanced curriculum. We aim to provide the highest quality of education for all our children, in an environment that is challenging, motivating, disciplined, caring and moral, where children can acquire the scientific skills and knowledge appropriate to their individual needs through the delivery of a creative Science curriculum. This provides opportunities for individuals to acquire knowledge, skills and understanding; promote the moral, cultural and mental well-being and development of our pupils; and prepare pupils for the opportunities, responsibilities and experiences of adult life. Through our pledge we promise a range of exciting learning and life experiences in Science.

6 key skills:

- 1. Scientific knowledge
- 2. Investigative skills
- 3. Thinking skills
- 4. Understanding and explaining the world around them
- 5. Developing a sense of natural curiosity
- 6. Open up the possibility of scientific careers in later life

How do you ensure every skill is taught within your subject?

There is a clear skills progression document and Curriculum Overview and rationale for Science that ensures knowledge and understanding required is covered, alongside the necessary skills development.

Quality Assurance (recorded in Subject Leader files and using SeeSaw, going forward) provides evidence through book looks and planning, that children are learning skills and not just the topic knowledge.

Topics taught across each year group:

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	Seasonal changes	Everyday materials	Animals Inc. humans	Plants	Child-led investigations	Child-led investigations
2	Every day materials	Child-led investigations	Plants	Animals Inc. humans	Living things and their habitats	Child-led investigations
3	Rocks and Soils	Forces and magnets	Animals Inc. humans	Child-led investigations	Plants	Light
4	Electricity	Sound	Animals Inc. humans	Living things and their habitats	States of matter	Child-led investigations

5	Properties and changes in materials	Living things and their habitats	Earth and Space	Forces	Animals Inc. humans	Child-led investigations
6	Animals Inc. humans	Living things and their habitats	Electricity	Evolution and Inheritance	Light	Child-led investigations

Overview and Rationale for curriculum organisation ensures statutory content for skills and knowledge is covered.

1 hour per a week.

Describe what a good learner of this subject looks like when they leave Westfield Primary School?

What are the 7 key components of a good learner in your subject?

- 1. Children to become confident in their relevant and innovative thinking.
- 2. Children to have a positive and enthusiastic attitude towards the subject.
- 3. Children to have acquired a range of skills, which they can talk about when presenting their investigation.
- 4. To have curiosity to learn more through Science.
- 5. Risk taking- willing to try new things.
- 6. Understand that fair test is the key
- 7. Resilient- they won't give up if something is difficult.

What does Fast Feedback look like in your subject? How do you know this has been effective for children's progress?	Is your subject an SDP priority? Has there been school training and / or development related to your subject / specific SDP objectives? Have you taken part in any individual research? What has been the impact of this on the children and staff?	
Evidence of children self-correcting their work and re-drafting, if appropriate.	Science is not an SDP priority.	
Evidence of fast feedback policy in place in which pupils' work is seen to improve as a result.	Subject Folder holds any information pertaining to QAs, subject networks, informal networks, moderation, training PowerPoints etc), research activities.	
I spoke with my teacher and		