



Hurst Park Primary School Subject & Curriculum Leadership Report

SUBJECT / CURRICULUM		Science	Date:
Leader (s)		S Khan	16/10/20
	SECTIONS	SUMMARY EVALUATION	
1	INTRODUCTION Why do we teach what we teach?	At Hurst Park we aim to build for each child, a body of key foundational knowledge and concepts. All pupils will be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave and analyse causes. Young students learn well with integrative and hands-on lessons, making the primary school years the perfect time to build an interest in the sciences. The more background children have in science, the easier it will be to expand their scientific studies in secondary school. Ideally, teaching the scientific method to students is teaching them how to think, learn, solve problems and make informed decisions. These skills are integral to every aspect of a student's education and life, from school to career. Teaching science in primary schools also helps pupils see the opportunity of working for STEM later in life.	
2	CURRICULUM <ul style="list-style-type: none"> • INTENT (Include reference to SEND and disadvantaged pupils) 	During science lessons, pupils will be exposed to a variety of scientific topics, where they will be able to take part in investigations and experiments. It is important teachers teach the science topics for their year group, as pupils will build on their prior knowledge as they move up the primary phase. The science curriculum provides opportunities for all pupils, including SEND and disadvantaged pupils, to develop their thinking, problem solving and investigative skills ready to utilise it further in secondary school.	
	<ul style="list-style-type: none"> • IMPLEMENTATION 	Science is taught in all classes from EYFS to Year 6 and there are opportunities for pupils to attend extra-curricular clubs. Each year group follows the Science Programmes of Study which describes a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. Therefore, the work given to the pupils is demanding and matches the aims of the curriculum. A range of training from online, from the subject leader or STEM learning is available to help staff with different topic areas. Each school year, pupils take part in 'British Science Week' which enables them to develop their working scientifically skills. There is a focus on teachers being confident with practical investigations so all pupils can remember their learning long term and apply it to their future learning. Pupils are assessed termly using the steps and statements on Target Tracker. This enables pupils to make progress based on their starting points from the previous year. To continue pupils learning outside of lessons, Professor Bubbleworks is a science club which is run after school.	
	<ul style="list-style-type: none"> • IMPACT (Include reference to SEND and disadvantaged pupils) 	Each year, pupils produce good quality work in their Science books, which shows their development in their critical thinking and investigative skills from the previous year. In Key Stage 1 pupils experience and observe phenomena, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. So by year 6, pupils will develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. This will give our children in year 6, a better understanding of Science ready for secondary school. Analysis of data, books and discussions with pupils show that the pupils' knowledge within each unit is good. To develop further science I feel children's thinking skills need to be developed to expose them to a wider variety of open ended situations; the concept cartoons will aid this. In addition to this, a greater emphasis on working scientifically within lessons will increase the children's scientific capability further. SEND and disadvantaged pupils achieve well in science based on their starting points each year.	
3	BROADER CURRICULUM How does this subject promote elements of the broader curriculum, including SMSC, British Values, Eco-Schools, etc.?	The science curriculum promotes elements of SMSC spirituality, morally, socially and culturally. For example, pupils find out about Earth, space, and the universe and their place in it. They get to question and explore why things happen and how things work. Pupils debate and question 'big' ideas such as evolution. Topics such as inheritance and evolution emphasise respect for those people who hold different views to those expressed by scientists. During investigations, pupils listen to other's opinions and ideas about scientific stories, theories or hypotheses. Along with	



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		following safety rules in science – CLEAPPS (rule of Law). Science provides many cross-curricular learning opportunities, for example, through History by learning about scientists and how concepts develop over the years, along with Maths when collecting and analysing results.		
4	SUCCESSES IN THE SUBJECT IN THE PREVIOUS YEAR Focus should include the contribution of the subject to meeting whole school priorities	▶ Science day – National Physical Laboratory visit		
		▶ Good cover of topics across the year groups to ensure progression		
		▶ Development of thinking/questioning skills – Concept Cartoons		
5	ACHIEVEMENT Attainment, progress and the quality of learning for individuals, different groups, including SEND pupils, boys/girls, disadvantaged, CLA. Emphasise key skill development across curriculum	Strengths	▶ Grade 2	Areas for Development
		▶ Questioning and thinking skills		▶ Develop the use of working scientifically
		▶ Good cover of the topics across year groups		▶
6	TEACHING Teacher subject knowledge and pupil expectations, engagement, motivation, challenge, progress, independence, reading and literacy skills, assessment and next steps in learning. Marking, feedback.	Strengths	▶ Grade 2	Areas for Development
		▶ Evidence of science on display in classrooms		▶ To ensure all staff are covering and teaching 'working scientifically'
		▶ Great progression of topic/work across the phase in Science books		▶ To increase the pupil's independence during an investigation
		▶ Assessment and next steps for learning are given		▶ To teach more practical lessons
7	LEARNING BEHAVIOURS Including behaviour in lessons & around the school, attitudes to learning. Pupils' enjoyment and engagement in the subject, views of pupils/parents. Include SMSC	Judgement	▶ Grade 2	Areas for Development
		▶ Science is embedded across the school and expectations are high		▶ Ensure parents are on board with 'Science Week' – some parents have a lot to offer
		▶ Almost all pupils view science as an enjoyable lesson each week and enjoy learning new topics		▶
8	LEADERSHIP/MANAGEMENT How well leaders demonstrate ambition, vision, high expectations, improve teaching and learning, develop staff, sustain improvement. Appropriate curriculum, equal opportunities, parental engagement	Strengths	▶ Grade 2	Areas for Development
		▶ Subject leader holds staff meetings to support teachers with new concepts		▶ New staff to be made aware of teaching tools to help scientific understanding, for example, Concept Cartoons.
		▶ Subject leader has high expectations and demonstrates ambition through holding 'Science Week' and getting pupils on board		▶
9	OVERALL EFFECTIVENESS	Overall, pupils achieve well in science and teaching is good. Some staff still need encouragement and confidence to hold practical lessons. By holding Science Week each year, gives the pupils a sense of enjoyment and enables them to explore the wonders of Science. Pupils and staff have high expectations of Science and this is evident in their Science books and through planning/assessment.		
10	WHAT IS A GOOD LEARNER LIKE ON LEAVING HURST PARK?	A good learner would leave Hurst Park by being curious to learn more in Secondary school where they can use more developed technology/equipment to take their findings and thoughts further. They are aware of the way science can impact and change the world. They have the confidence to possess and share their scientific capability (knowledge and skills) that will enable them to continue their Science studies effectively.		
11	KEY AREAS FOR SUBJECT DEVELOPMENT Especially achievement and quality of teaching	▶ Increase teachers' confidence in holding practical lessons – experiments/investigations.		
		▶ To develop the use of working scientifically across all year groups.		
		▶ To develop thinking skills to extend more able pupils.		