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October 2022 Review Date: October 2023

Subject Leader: Nicola Whitwell

**Introduction**

At Thornton-In-Craven Primary School we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires. The Scientific area of learning is concerned with increasing pupils’ knowledge and understanding of our world, and with developing skills associated with Science, encouraging inquiry based learners. The experience of pupils using Scientific methods of investigation should develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities to developing children’s questioning. The National Curriculum will provide a structure and skill development for the science curriculum taught throughout the school, which is linked into our knowledge based curriculum learning. We endeavour to ensure that the Science curriculum we provide, will give children the confidence and motivation to continue to further develop their skills into the next stage of education and adulthood.

**Science Curriculum Intent, Implementation, Impact Overview**

**INTENT:**

The intent of our Science curriculum is to deliver a curriculum which is accessible to all, from the start of EYFS through to the end of Year 6, that will maximise the outcomes for every child so that they ***know more***, ***remember more*** and ***understand more***. As a result of this they will:

· develop scientific knowledge and conceptual understanding through the specific disciplines of Biology, Chemistry and Physics;

· develop understanding of the nature, processes and methods of Science through different types of science enquiries that help them to answer scientific questions about the world around them;

· be equipped with the scientific knowledge required to understand the uses and implications of Science, today and for the future.

**IMPLEMENTATION:**

**· Clear and comprehensive scheme of work in line with the National Curriculum**

A clear Long Term Plan shows progression development and actions opportunities to enhance the curriculum. Long Term Planning will engage learning throughout the year so time is given to observe development e.g. watching seasons change, plants grow and life cycles produced. Teaching and Learning will show **progression** across all key stages within the strands of Science.

Children will be able to build on prior knowledge and link ideas together, enabling them to question and become enquiry based learners.

* **Knowledge and understanding of Scientific Vocabulary**

Children will have access, through display, ‘sticky science’ recall and lessons, to key vocabulary and readily apply scientific terminology to their written and verbal communication of their skills.

* **Varied lessons developing to develop and engage scientific learning**

Children access and acquire learning through practical experiences, using a variety of scientific equipment (including digital equipment) and secondary sources. Teaching and learning should plan for half-termly practical lessons and provide opportunities for the children to investigate in a variety of contexts and to provide outdoor learning where relevant. Teaching will develop an enthusiasm and enjoyment of scientific learning and discovery. Children will record their ‘learning’ using scientific vocabulary, predictions, observation, recording and conclusions.

**IMPACT:**

* Children will achieve age related expectations in Science at the end of their cohort year.
* Children will retain knowledge that is pertinent to Science – knowing and being assessed against the key learning objectives for each unit.
* Children will be able to question ideas and reflect on knowledge using scientific vocabulary.
* Children will work collaboratively and practically to investigate and experiment – working towards independent investigating in Class 4 ensuring all children can achieve this by the end of Year 6.
* Children will be able to explain and record the processes they have taken and be able to reason scientifically.

**Time Allocation:**

Science is taught weekly, with termly or half-termly units:

EYFS spend at least 1 hour per week with a science focus.

KS1 have a timetabled lesson for 1 hour each week.

KS2 classes timetable for 1 hour and 15 minutes each week.

The Long-Term Plan also shows how some units are developed during the course of the year and how many units build on each other year on year. Science days are also held in March each year where science learning is enhanced by a specific focus on science. The link with a local secondary school teacher is utilised with a visit to engage and inspire through science.

Children will have the opportunity to visit the Science Museum in Manchester during their time in KS2. The children in KS1 will have the opportunity to handle, observe and learn about animals with a visit from the Zoolab company. Nursery and Reception children are able to visit Thornton Hall farm in the village to feed lambs and observe spring features. In EYFS the children visit Harewood House to see penguins in their created habitat and make observations of the nature around them.

**The Science Co-ordinator is responsible for:**

· Monitoring the teaching and learning of Science and to ensure that children know more, remember more and understand more about Science.

· Overseeing and implementing the policy and Long-term Plan.

· Writing an annual action plan for The School Improvement Plan and evaluating progress throughout the year.

· Attending INSET and local Network meetings to provide staff with appropriate feedback.

· Attending regular Subject Leader courses and giving feedback to staff. Also, ensuring staff attend relevant courses to keep knowledge up to date and aid their CPD.

· STEM Membership to keep up to date with developments in Primary Science.

· BeSafe – yearly reminder to staff.

· As a curriculum leader in Science, recognise the importance to ensure that children with identified Special Educational Needs and/or Disabilities have access to an ambitious Science curriculum. Within the curriculum area of Science, SEND children will be provided with reasonable adjustments through their tasks and level of challenge provided. Advice can be sought from the school's SENCO where applicable.