



# Science at Thornton Primary School

## Science Intent

**Science** teaching at Thornton Primary School is based on the Twinkl scheme of work. This provides a coherent and progressive curriculum which covers all aspects and learning objectives of Science teaching as outlined in the DfE programme of study for Science. The teaching of Science at Thornton contributes to the school's overall intent by:

- Developing a strong understanding within children of the world around them.
- Acquiring specific skills and knowledge to help children to think scientifically.
- Developing a range of scientific skills including observations, planning and investigations.
- Acquiring specialist vocabulary and developing children's questioning skills.
- Developing scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics.
- Developing understanding of the nature, processes and methods of science through different types of science enquiries that help children to answer scientific questions about the world around them.
- Gaining an understanding of scientific processes and an understanding of the uses and implications of Science today and for the future.



## Implementation

Scientific concepts, knowledge and understanding will be taught through topics and also covered cross curricular through other subject areas. There is a strong emphasis on progression of knowledge and developing pupils' skills. Carefully selected enrichment opportunities, such as Science theme days and Science Week, will enhance pupils' learning. Curriculum organisation and timetabling enable learner's opportunities for constant recapping of knowledge and skills with well-spaced reviews. (interleaving and addressing the forgetting curve).

Science based topics will be included in Knowledge Organisers and will be used to provide transparency, an overview of pre-teach content and also a means of tracking knowledge, skills and the understanding of concepts which are regularly revisited. This will be done through a range of retrieval exercises.

By the end of each Key Stage, pupils will know, be able to apply and understand the matters, skills and processes specified in the programmes of study in the National Curriculum.

On occasion, Science subject headings may occur on a rotation depending of class sizes/organisation of year groups. This is carefully tracked by Subject Leaders to ensure topic content is not repeated, the progression of key knowledge and skills in still maintained and also that content is differentiated for different age groups when necessary.





## Topic Map

	Aut 1	Aut 2	Spr 1	Spr 2	Summer 1	Summer 2
Year 1	<b>Animals including Humans</b>	<b>Seasonal Changes</b> (Autumn to Winter)	<b>Everyday Materials</b>	<b>Seasonal Changes</b> (Spring to Summer)	<b>Plants</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)
Year 2	<b>Animals including Humans</b>	<b>Uses of Everyday Materials</b>	<b>Living Things and their Habitats</b>	<b>Plants</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)	<b>Scientific Enquiry</b> (related to topic)
	Aut 1	Aut 2	Spr 1	Spr 2	Summer 1	Summer 2
Year 3	<b>Forces and Magnets</b>	<b>Animals including Humans</b>	<b>Light</b>	<b>Plants</b>	<b>Rocks</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)
Year 4	<b>Living Things and their Habitats</b>	<b>Animals including Humans</b>	<b>States of Matter</b>	<b>Sound</b>	<b>Electricity</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)
Year 5	<b>Living Things and their Habitats</b>	<b>Animals including Humans</b>	<b>Properties and Changes of Materials</b>	<b>Forces</b>	<b>Earth and Space</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)
Year 6	<b>Living Things and their Habitats</b>	<b>Animals including Humans</b>	<b>Evolution and Inheritance</b>	<b>Electricity</b>	<b>Light</b>	<b>Focus on a Scientist</b> (Scientific Enquiry)

## **Impact**

The impact of our Science is measured in terms of the extent to which pupils have developed new knowledge, understanding and skills and that they can use and recall this with fluency.

This will be measured by:

- Knowledge Organiser assessment tasks and regular knowledge check activities.
- In school attainment tracking of both core and foundation subjects.
- Engagement in Science enrichment activities
- Route to Resilience activities
- Pupil voice – questionnaires, pupil book and learning reviews
- Subject Leader monitoring – Lesson visits, scrutiny of books, assessment, pupil interviews and questionnaires
- Governor monitoring

The Science curriculum and resources used will be evaluated annually.

More detailed information about the curriculum can be requested from the School.