

Subject statement for Science

Subject:	Science
Aims:	At Duncombe, we aim to develop children's knowledge and their understanding of the world around them while acquiring skills linked to scientific enquiry. We give all children knowledge to help them think scientifically, understand the scientific processes and the use of science in their world, the wider community and the wider world. Children develop their knowledge and skills throughout their time at Duncombe to become empowered learners that ask questions and contribute to the school. Scientific enquiry is embedded across all topics in science. Children are encouraged to develop an understanding of nature, processes and methods by asking questions, problem solving, deepening conceptual understanding as they progress through primary education, work with independence and communicate effectively. Clear learning outcomes are planned to allow children to apply their knowledge and investigate questions they have.
Progression ensuring skills and knowledge:	Topics are carefully planned for each year group and revisited to cover the three strands biology, physics and chemistry. We have a vocabulary focus to help children to explore scientific language and use this in context of the science topic. In line with the national curriculum, we aim to build a science curriculum that develops the acquisition of knowledge. Duncombe children learn to plan and control variables in enquiries, take measurements, record data and results of increasing complexity, use results to make predictions for further tests as well as report and present findings from enquiries in a variety of ways.
Learning Experiences:	Science is a subject that allows for great experiences outside the classroom as well as in. Learning outside the classroom allows children to develop their cultural capital and become active, thoughtful and informed citizens. Trips are planned regularly for children to consolidate classroom learning and spark curiosity. These include trips to museums and ecology centres. We celebrate science in Science Week with workshops and visitors in the science field as well as working in partnership with other schools for children to share their science projects.
Digital Discovery links:	Children will use technology to help them measure data and present results. Data loggers will be used in all year groups to measure light, sound and heat. Children will understand how this information can be viewed and presented both in written forms and on the computer. Children will use technology to present their scientific discoveries and data using presentation software such as Google Slides and Microsoft PowerPoint.
Environmental Issues links:	Environmental issues are explored as we delve into science. This includes looking at ourselves and the effect of exercise. Children will learn about plants and trees and the role they play in our world. They will learn about the life cycle and the human impact on the world as well as recycling materials. They will also explore the issue of endangered animals as environments change.
Skills: (characteristics of effective learning)	Engagement: Children develop a curiosity for science in which they explore and ask questions. They take risks and become enquirers by asking questions to find out more. Visiting scientists and hands-on experiences ensure children enjoy science and are thoroughly engaged.
	Motivation: Children develop confidence and resilience as they work through the different topics with a sense of achievement and motivation when solving a problem or making a new discovery.
	Thinking: Children begin to develop and link concepts and the knowledge they have gained. They start to plan and learn to think critically about topics as well as having their own ideas they may want explore.
Resources used:	We have a science room containing resources available for all to use, this includes test tubes, measuring cylinders, timers and hand lenses. For the different topics across the key stages, we have topic boxes with resources for specific lessons. The topic boxes are organised into year groups.