

National Curriculum Purpose of Study
 A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

National Curriculum Aims
 The national curriculum for science aims to ensure that all pupils:

- 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
- are equipped with the scientific knowledge required to understand the uses and implications of science, today and for the future.

The principal focus of science teaching in KS1 is to enable pupils to 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. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs/ videos.

SCHOOL KEY DRIVERS	
Oracy to place speech and communication at the heart of our curriculum enabling our children to speak confidently, appropriately and sensitively, learning through talk and deepening understanding through dialogue.	Community to develop our wish to be a central part of the local, national and world community
Diversity to develop our children's horizons and understanding of a variety of lifestyles within a broad, cultural curriculum	Enquiry to encourage our children to be inquisitive, to ask questions and be resourceful, persistent and independent in their learning.
Environment to continue to reinforce that we value the environment and feel passionate about its management	Enterprise to support our children in developing more independence and the opportunity to show initiative
Risk because children need to learn to assess and manage risks by having fun and a little bit of danger!	

National Curriculum Content:

Skills - Working Scientifically
 During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

Knowledge:
Animals, including humans
 Pupils should be taught to:

- identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals
- identify and name a variety of common animals that are carnivores, herbivores and omnivores
- describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)
- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- notice that animals, including humans, have offspring which grow into adults
- find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

Everyday Materials
 Pupils should be taught to:

- distinguish between an object and the material from which it is made
- identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
- describe the simple physical properties of a variety of everyday materials
- compare and group together a variety of everyday materials on the basis of their simple physical properties.
- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Seasonal Changes
 Pupils should be taught to:

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies

Living things and their habitats

Pupils should be taught to:

- explore and compare the differences between things that are living, dead, and things that have never been alive
- identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- identify and name a variety of plants and animals in their habitats, including microhabitats
- describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

Plants
 Pupils should be taught to:

- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees.
- observe and describe how seeds and bulbs grow into mature plants
- find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

Spiritual, Moral, Social and Cultural development through the teaching of Science

Spiritual
 Science supports spiritual development by providing many opportunities for children to think and spend time reflecting on the amazing wonders which occur in our natural world.

Moral
 Science supports moral development by showing children that different opinions need to be respected and valued. There are many moral and ethical issues that we cover in science including discussions about environmental and human issues.

Social
 Science supports social development by exposing children to the power of collaborative working in the science community which has led to some amazing and life changing breakthroughs in medicine. When undertaking experiments and research children work collaboratively.

Cultural
 Science supports cultural development by looking at how scientists from a range of cultures have had a significant impact globally. It also helps children to understand how important science is to the economy and culture of the UK.

