

## **Science**

### **Science Teaching at Crofton Infants' School**

#### **Intent**

Here at Crofton Infants' School, we know that children are naturally fascinated by everything in the world around them and that science makes a valuable contribution to their understanding of the world. We believe high quality science education provides the foundations for understanding how science has changed our lives and is making an increasing contribution to all aspects of life in our rapidly changing world.

#### **Aims**

At Crofton Infants' School our science policy follows the National Curriculum for Science and aims to ensure that all pupils:

- develop lively, enquiring minds and the ability to question.
- learn scientific skills and knowledge.
- build on their natural curiosity and enable them to understand and care for the world in which they live.
- are provided with an environment where they can work in an investigative way and can communicate their findings in a variety of ways.
- can use equipment safely and sensibly.
- develop the potential scientific links with all other areas of the curriculum.
- develop scientific knowledge and conceptual understanding.
- 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.

#### **Science and the national curriculum**

The National Curriculum document for Science sets out a clear, full and statutory requirement for all children. It determines the content of what will be taught and sets attainment targets for learning. The programme of study sets out what should be taught at Key Stage 1. Science also makes a significant contribution to the specific area of learning and development 'Understanding the World' set out in the EYFS programme of study.

## **Curriculum**

### **EYFS**

In EYFS we teach science as part of the Understanding the World specific area of learning and development. This involves the Early Learning Goal: The Natural World. Children at the expected level of development will:

- Explore the natural world around them, making observations and drawing pictures of animals and plants.
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

### **Key Stage 1**

In Year 1 and Year 2 we teach the following subjects:

#### **Year 1:**

- Plants
- Animals, including humans
- Everyday materials
- Seasonal change

#### **Year 2:**

- Living things and their habitats
- Plants
- Animals, including humans
- Uses of everyday materials
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## **Implementation**

### **Teaching Science**

We teach Science to all children whatever their ability. Science forms an important part of the school curriculum to provide a broad and balanced education to all. Science is taught weekly, mainly cross curricula in EYFS, but as a discrete subject in KS1. Science is a hands-on experience and all the children are given the opportunity to use their senses. Children are encouraged to:

- observe, discover and experiment.
- develop scientific language.
- question and report.
- sort and classify.
- look for similarities and differences.

### **Experiences to support science**

At Crofton Infants' School we enhance the science curriculum in many ways. These have included and will include:

- A whole school science day.
- A STEM club at lunchtime involving engineering skills (Meccano/Lego).
- Visitors into school including Zoolab and the owls.
- Inviting STEM ambassadors into school to link in with the STEM club or science day.
- Using the garden area for outdoor learning and gardening across the curriculum.
- Weekly Forest Schools sessions.
- Welly walks in the local environment.
- Possible parental engagement from parents who work in STEM industries to broaden the knowledge of opportunities available in STEM subjects.
- School trips including Yorkshire Wildlife Park, Ledstone Estate, Fairburn Ings and Eureka.

### **Health and Safety**

Pupils will be taught to use scientific equipment safely when using it during practical activities. Teachers will ensure the school policy for Health and Safety is integrated into science teaching and relevant risk assessments are undertaken if necessary.

### **Impact**

#### **Assessment**

Assessment in Science is based upon scientific knowledge and understanding. In EYFS we assess children's knowledge and understanding according to the EYFS Learning and Development Stages. In KS1 we use a range of assessment materials to ensure that children are making appropriate progress. These are embedded throughout the topic not just at the end. They include:

- Target sheets to show the children the outcomes we are expecting them to achieve.

- Thought showers at the beginning and end of a topic, to find out what the children have learnt and check we have answered all their questions.
- Focused assessment plans (TAPS (Teacher Assessment in Primary Science)) within topics, to assess the children's learning throughout the topic, especially for working scientifically.
- Summative assessment tests at the end of topics, to find out what the children have learnt.
- Explorify tool ([www.explorify.uk](http://www.explorify.uk)), to deepen understanding and knowledge.

Pupils are expected to know, apply and understand the skills and processes specified in the relevant programme of study and are assessed against the age-related expectations of the National Curriculum requirements for science.

### **Monitoring and Evaluation**

The Science Lead will monitor and evaluate the teaching and learning of science by carrying out:

- The monitoring and evaluation of pupils' work
- lesson observations
- the monitoring of data.
- pupil and teacher voice questionnaires throughout the year
- learning walks