

# Science Teaching and Learning Policy

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# **Science Teaching and Learning Policy**

#### Introduction

The learning and teaching of science at Howard Park Community School aims to promote science as a core subject which is taught on a weekly basis across the foundation stage and key stages 1 and 2. It is seen as a practical subject that needs to be taught in a practical way (where appropriate) to stimulate curiosity, discussion and investigation. The teaching and learning of science should be linked to real world experience to encourage children to develop an understanding and enquiring mind.

Our vision is to inspire enquiring minds for the future.

## Aims

The aims of science are:

- To develop scientific knowledge and conceptual understanding.
- To develop scientific vocabulary.
- To empower pupils to ask scientific questions to enable children to make careful observations and decisions based on justifiable reasons.
- To build on children's natural curiosity and enable them to understand and care for the world in which they live.
- To provide pupils with an environment where they can work in an investigative way and communicate their findings.
- To encourage pupils to make decisions.
- Develop an enjoyment and fascination of science.

## The Curriculum

Science learning takes place in a variety of ways at Howard Park. Children are given the opportunity to develop knowledge, skills and an enquiring mind. This is done through formal lessons, group activities, individual work, and experiments. Children are taught to think scientifically and ask questions. Problem solving activities and investigations are used to engage children in their learning; these activities often have a real life context.

The delivery of science teaching at Howard Park places an emphasis on scientific investigations and practical activities which are based on real world scenarios. Science is taught in weekly lessons and is also delivered through cross curricular links in other subjects. Approximately 60 minutes are allocated to the explicit teaching of science per week. Science lessons are differentiated according to children's learning requirements. This ensures all groups of learners can access the curriculum and make progress in each session. Care is taken to ensure progression from the foundation stage and throughout key stages 1 and 2. When topics are revisited, another layer of knowledge and skills are added. The study of science is based on the 2014 national curriculum. All units of science from the national curriculum are mapped out in the schools long and medium term planning and refined in short term planning. This ensures statutory content and skills are covered. We use a variety of schemes of work to ensure coverage of the programme of study for science. This scheme of work is adapted by teaching staff in accordance with the learning needs of the children across the school. The pupils have access to a broad and balanced science curriculum.

## **Curriculum Links**

Science has many strong links with other subjects as well as constantly reinforcing children's basic skills. It develops many of the skills used in literacy such as reading, writing, speaking and listening. Children enhance their mathematics skills by developing their ability to problem solve, measure, and represent and analyse information. Children use ICT whenever appropriate in science lessons. Science makes a significant contribution to PSHE. It raises matters of citizenship, welfare and provides opportunities for debates and discussions.

#### Assessment

Pupil work is assessed by direct observation when completing science activities and in discussion with the teacher, as well as the finished work. Children's achievements are shared with parents at Parent Consultations on a termly basis. Work may also be shared with the school community through class led assemblies and displays.

#### Resources

We keep a range of science resources in a central store area in the school. The subject leader is responsible for organising and replenishing resources alongside identifying items needed to purchase.

#### **Health And Safety**

Safe working practices are an integral part of all Science activities. All staff are aware of safe and correct handling of tools, materials and equipment. The teaching staff demonstrate to pupils how to work safely and ensures that all children using equipment are properly supervised.

## Monitoring

Subject leaders monitor the delivery of science teaching and the quality of learning across the school. This is done through book scrutinies, pupil interviews, planning scrutiny and leading staff training.

#### **Review And Evaluation**

The science leader is responsible for developing an action plan for science to lead improvement in the subject,

# Appendix 1 – Science Long Term Plan

Autumn		Spring		Summer		
Year 1	Who Am I?	Celebrations	Treasure Island	Polar Adventures	On Safari	Holidays
Year 2	Plants	Plants – Ongoing Materials	Plants – Ongoing Materials	Plants – Ongoing Animals Including Humans	Plants – Ongoing Animals Including Humans	Plants – Ongoing Habitats
Year 3	Rocks And Soils	Famous Scientists	Plants	Forces And Magnets	Light	Animals Including Humans
Year 4	Sound Scientist Study	States of Matter Scientist Study	Animals including Humans Scientist Study	Living things and their habitats Scientist Study	Electricity Scientist Study	Electricity
Year 5	Space	Forces	Life Cycles	Notable Scientists	Habitats	Changing States
Year 6	Classification	Circulatory System	Evolution and Inheritance	Light	Electricity	Influential Scientists and Inventors

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