



# Kingswood Primary Academy Science Policy

## Aims and Objectives:

We live in an increasingly scientific and technological age where children need to acquire the knowledge, skills and attitudes to prepare them for life in the 21st century. We, at Kingswood Primary Academy believe that the teaching of science develops in children an interest and curiosity about the world in which they live, and fosters in them a respect for the environment.

Through the framework of the National Curriculum, science aims to:

- Equip children to use themselves as starting points for learning about science, and to build on their enthusiasm and natural sense of wonder about the world
- Develop through practical work the skills of observation, prediction, investigation, interpretation, communication, questioning and hypothesizing, and increased use of precise measurement skills and IT
- To enable children to understand the application and the contribution that science makes to society
- Encourage and enable pupils to offer their own suggestions, and to be creative in their approach to science, and to gain enjoyment from their scientific work
- Enable children to develop their skills of co-operation through working with others, and to encourage where possible, ways for children to explore science in forms which are relevant and meaningful to them.
- Teach scientific enquiry through contexts taken from the National Curriculum for science and the Snap Science scheme of work
- Encourage children to collect relevant evidence and to question outcome and to persevere
- Encourage children to treat the living and non-living environment with respect and sensitivity
- Stress the need for personal and group safety by the correct usage and storage of resources
- To enable children to appreciate that we do not always know the answers and results when carrying out scientific enquiry

## The Philosophy and Ethos:

We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Through the programmes of study in the National Curriculum science document and the Snap Science scheme, children will acquire and develop these skills throughout their primary years.

We believe that science promotes communication in a specific and precise language involving mathematical and logical thinking. It allows children to develop ways of finding out for themselves and gives them practice in problem solving.

As their knowledge and understanding increases and they become more proficient in selecting and using scientific equipment and collating and interpreting results they will become increasingly confident in their growing ability to come to conclusions based on real evidence. Science fosters a healthy curiosity in children about our universe and promotes respect for the living and non-living. It allows children to develop original ideas and a questioning attitude.

In science, pupils are encouraged to be open-minded and to try and make sense of what they see and find out. The main focus of our approach will be through open-ended activities where we encourage children to recognize the need for fair testing.

## **Equal Opportunities:**

At Kingswood Primary Academy we are committed to providing all children with an equal entitlement to scientific activities and opportunities regardless of race, gender, culture or class.

## **Inclusion:**

In school, we aim to meet the needs of all our children by differentiation in our science planning and in providing a variety of approaches and tasks appropriate to ability levels. This will enable children with learning and/or physical difficulties to take an active part in scientific learning and practical activities and investigations and to achieve the goals they have been set. Some children will require closer supervision and more adult support to allow them to progress whilst GDS children will be extended through differentiated activities. By being given enhancing and enriching activities, GDS children will be able to progress to a higher level of knowledge and understanding appropriate to their abilities.

## **Assessment and Record Keeping:**

An initial assessment will be carried out at the start of each unit to assess the children's prior knowledge. Assessment for learning is continuous throughout the planning, teaching and learning cycle. However, children are more formally assessed upon completion of each unit of study in KS1 and KS2 using a variety of methods:

- Observing children at work, individually, in pairs, in a group, and in classes
- Questioning, talking and listening to children.
- Considering work/materials / investigations produced by children together with Snap Science assessments and the science exemplification documents
- Children's progress is continually monitored and tracked throughout their time at Kingswood Primary Academy

## **Health and Safety:**

All potentially hazardous activities should be risk assessed using the school format. All Risk Assessments should be saved to the staff drive RA folder for future use and review. Reminders will be given to children about potential hazards and care of the equipment they are using. A fire blanket, stored in the Science Cupboard, must be in a designated place in the classroom when carrying out an activity where there is a fire hazard.

Any trips should have been planned with due regard to the school policy on taking children on outings. GAT guidance may need to be sought on trips involving farms etc.

Children will be taught and be expected to use equipment both safely and sensibly. This will be achieved through clear and positive guidance. When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:

- about hazards, risks and risk control
- to make, and act on, suggestions to control obvious risks to themselves and others

## **Monitoring:**

Monitoring of Science is the responsibility of the Science Subject Leader. The purpose of monitoring science is to raise standards in science, promote excellence in learning and teaching of science and to identify training and development needs.

Monitoring will be in the form of:

- Sample book scrutiny in November, February and May
- Lesson observations
- Analysis of data Autumn, Spring and Summer term