

Science Policy



2016/17

Aims Of Handsworth Primary School

“A School With Great Expectations”

At Handsworth primary School we aim to provide a safe, caring and stimulating environment, which offers opportunities:-

- For everyone within the school to reach their full potential and develop self-worth, self-confidence, the ability to take responsibility for their own individual actions and resilience.
- For everyone within the school to have a sense of wonder, an enthusiasm for learning and help children to develop as independent thinkers and learners with enquiring minds.
- To encourage and develop a respect and understanding for others.
- To develop all partnerships, small and large, from the individual parent to the wider community and beyond to support children's learning.
- To give children access to a broad and balanced creative curriculum to attain the highest possible standards in relation to prior attainment through assessment and learning.

Equal opportunities

At Handsworth Primary school we believe that every child is entitled to equal access to a broad and balanced engaging curriculum, regardless of race, gender, class or disability. We positively celebrate diversity and difference.

Inclusion

- We are committed to promoting a learning and teaching environment for all that embeds the values of inclusive educational practices.
- We aim, through a child centred approach, to ensure that education is accessible and relevant to all our learners, to respect each other and to celebrate diversity and difference.

A Mission Statement

At Handsworth Primary our intention is to start from “where the child is”.

This means that at the beginning of any unit the teacher will gather from the children the knowledge they already have.

In this way we carry the children on in their learning and we are also able to challenge any misconceptions the children may have.

Questioning skills are vital in science. We try to always ask open ended and demanding questions.

Science is about: discovery, investigation, questioning and intellectual thinking.

Above all Science is fun!

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 Handsworth Primary School 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 ICT.
- ❖ 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.
- ❖ 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 children in Nursery and Early Years Reception follow the Early Learning goals for knowledge and understanding of the world to develop and progress their scientific knowledge through Practical learning.

The Philosophy and Ethos:

We believe science encompasses the acquisition of knowledge, concepts, skills and positive attitudes. Through the programs of study in the National Curriculum science document 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 Handsworth Primary School 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 more able children will be extended through differentiated activities. By being given enhancing and enriching activities, more able children will be able to progress to a higher level of knowledge and understanding appropriate to their abilities.

Assessment and Record Keeping:

Assessment for learning is continuous throughout the planning, teaching and learning cycle. However children are more formally assessed half termly 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 discussion about this with them.
- ❖ End of unit assessment tests or assessments.

Children's progress is continually monitored and tracked throughout their time at Handsworth Primary School.

Health and Safety:

All staff should make themselves conversant with the following; - In regard to science work in school all teachers will be conversant with the "Be Safe" safety booklet.

Where appropriate reminders will be given to children about potential hazards and care of the equipment they are using.

Any trips should have been planned with due regard to the school policy on taking children on outings. Local Authority guidance may need to be sought on trips involving farms etc. Risk assessments must be completed. We recognize the benefit of pupils attending educational visits to enhance their learning. There are many trips that support scientific enquiry which are promoted including trips to the Science Museum; the Soane Museum in Tower Hamlets etc.

Procedures:

All staff and associated stakeholders should familiarise themselves with the accompanying document entitled "Science Procedures".