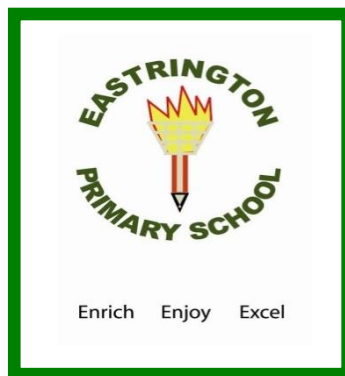


EASTINGTON PRIMARY SCHOOL



SCIENCE POLICY

Written – November 2019

Reviewed- Autumn 2021

Reviewd- Autumn 2023

Date of next review- Autumn 2025

Head teacher: Heidi Gallagher

Science Leader: Donna Goodwin

Chair of Governors: Alvin Fernandes

Rationale

The purpose of teaching science as outlined in The National Curriculum and consistent with our school philosophy.

“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 2014)

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.

Objectives in teaching science

- To develop pupils’ curiosity about themselves and foster positive attitudes towards science
- To encourage children to examine and appreciate how science and technology affect their lives and the environment
- To provide a balanced range of scientific activities
- To develop opportunities for pupils to acquire scientific skill through investigation
- To ensure continuity and progression from Foundation Stage to Y6 as a result of careful planning
- To provide various ways of working: whole class, group, paired or individual
- To provide opportunities for pupils and teachers to share and exchange ideas
- To encourage pupils to work with increasing independence and develop research skills
- To ensure inclusive delivery so that pupils are given equal opportunities to access the science curriculum.

Working Scientifically

In line with the National Curriculum 2014, pupils will be taught to ‘work scientifically’. The National Curriculum document defines this as:

‘Working scientifically’ specifies the understanding of the nature, processes and methods of science for each year group. It should not be taught as a separate strand. The notes and guidance give examples of how ‘working scientifically’ might be embedded within the content of biology, chemistry and physics, focusing on the key features of scientific enquiry, so that pupils learn to use a variety of approaches to answer relevant scientific questions. These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.

The Teaching of Science

In Early Years' Foundation Stage, science is taught through the specific learning area of 'Understanding the World'. This area looks at supporting children in developing the knowledge, skills and understanding to help them make sense of their world. They should be able to explore creatures, people, plants and objects and undertake practical 'experiments'.

In KS1 and KS2, science is taught as a discreet subject each week. Mixed- age group classes combine elements of both year group programmes of study which are derived from the National Curriculum, as appropriate. The school uses the National Curriculum and Development Matters Criteria for science as the foundations of its curriculum planning alongside a variety of sources. These plans are personalised, adapted by teachers to meet the specific needs of all pupils in the class.

Children in the Early Years' Foundation Stage are taught through learning opportunities specifically set up to create curiosity for and understanding of the world.

In KS1 and KS2 science is delivered using variety of teaching and learning styles. Our principal aim is to develop children's knowledge, skills and understanding. Sometimes we do this through whole-class teaching, while at other times we engage the children in an enquiry-based research activity. We encourage the children to ask, as well as answer, scientific questions. They have the opportunity to use a variety of data, such as statistics, graphs, pictures, and photographs. They use ICT in science lessons to support and enhance their learning. Children also take part in investigative learning and discussions, which helps deliver the 'working scientifically' aspect of the curriculum.

Key features of science include:

- Lessons are included and detailed in weekly planning
- Appropriate pace of learning is in place and high expectations maintained
- Account is taken of pupils' prior learning
- High standards of presentation are expected
- Pupils are regularly given opportunities to plan, predict, investigate and evaluate different types of practical activities.
- Good use is made of a wide range of resources
- Pupils are praised effectively to encourage and motivate them and are well supported according to their needs
- ICT is used to enhance learning and teaching experiences
- Pupils are aware of the importance of scientific work to everyday life and make relevant links
- Pupils are encouraged to share responsibility for their own learning

Inclusion

We are committed to providing effective learning opportunities for all pupils and apply the three principles of inclusion to planning and teaching. Suitable learning challenges will be set for all pupils, with the aim of maximizing achievement for all pupils at an appropriate level for each individual. The open ended nature of investigations allows able pupils to be challenged and to show their initiative and creativity when solving problems. Teachers will respond appropriately to pupils' diverse learning needs, disabilities, as well as different cultural, social, and ethnic backgrounds. We are committed to the principle of equality of opportunity and this is reflected in the curriculum offered and the conduct of staff and pupils.

Health and Safety

Teaching and learning in science takes place in line with the school's Health and Safety policy. For specific guidance, teachers consult 'Be Safe' Health and Safety in school science and technology for

teachers of 3-12 years old, The Association for science Education. Alongside CLEAPSS Primary, who give information on safety of activities, materials and equipment.

Assessment

Teachers will assess children's work in science by making informal judgements during lessons. On completion of a piece of work, the teacher assesses it, and uses this assessment to plan for future learning. Written or verbal feedback is given to the child to help guide his/her progress. At the end of each Science unit, teachers record the child's progress against the key objectives for that unit, this is then fed into the school's tracking system.

Formal written reports are shared with parents/carers in the summer term of each academic year.

Resources

A wide range of Resources are kept in a central store, where there is a box of equipment for each element of the primary science curriculum. The library service is used to provide Early Years, Key Stage 1 and Key Stage 2 science reference books, alongside the school library. Staff are regularly updated on online resources to support pupils learning and understanding.

Monitoring

The teaching of science is evaluated in order to support and enhance science provision in our school. The science subject leader is responsible for monitoring the curriculum provision to ensure pupils make maximum progress.

Review

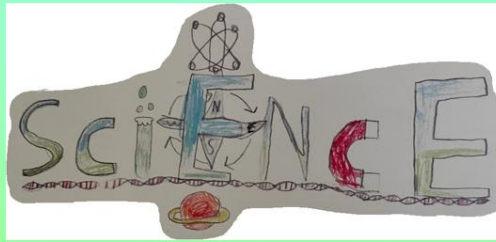
This policy will be reviewed at least every two years.

Policy written: November 2019

Reviewed- Autumn 2021

Review Due: Autumn 2023

Next review due- Autumn 2025



We investigate and find out answers to our questions.

We have hands on learning in our lessons.

In science we get to do exciting things.

We get to learn science outdoors.

We are confident to question and explore.

We learn and use scientific vocabulary.

We work together to find out.

We use technology to support our science learning.

We learn about Science in the real world.