

EYNESBURY CHURCH OF ENGLAND PRIMARY SCHOOL

Science Guidance



Our Whole School Curriculum Vision Intent Statement

At Eynesbury Church of England Primary School, our curriculum has been designed to ensure every child can 'live life in all its fullness' by offering stimulating and awe inspiring learning experiences with Christian values at its heart. We aim to deliver a curriculum that provides our children with rich knowledge and skills. It gives them the opportunities to develop into well-rounded individuals ready for each stage in their learning journey. Our pupils leave Eynesbury as respectful, good citizens with good memories, a thirst for learning and life and all it has to offer.

Eynesbury Church of England Primary School**Science Guidance****July 2026****Introduction:**

At Eynesbury C of E Primary School, we recognise the importance of Science in every aspect of daily life. As one of the core subjects taught in Primary Schools, we give the teaching and learning of Science the prominence it requires.

The Scientific area of learning is concerned with increasing pupils' knowledge and understanding of our world, and with developing skills associated with Science as a process of enquiry. It will develop the natural curiosity of the child, encourage respect for living organisms and the physical environment and provide opportunities for critical evaluation of evidence.

Curriculum Intent

Through the teaching of science we aim to:

- Enhance children's understanding of the world.
- Develop children's **scientific knowledge and conceptual understanding** through the specific disciplines of biology, chemistry and physics.
- Equip children with the scientific knowledge required to understand the **uses and implications** of science, today and for the future.
- Foster concern about, and actively care for, our environment.
- Help our children acquire and develop a growing understanding of scientific ideas and concepts.
- Develop children's natural curiosity and encourage positive attitudes towards science.
- Provide our children with an enjoyable experience of science in order to develop a deep and lasting interest.
- Develop children's problem solving skills and the ability to persevere.
- Develop children's 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.
- Enable children to understand scientific process and acquire practical scientific skills.
- Develop the skills of investigation by observing, questioning, measuring, predicting, hypothesising, experimenting, communicating, recording, interpreting, explaining and evaluating.
- Develop children's skills of co-operation through working with others.
- Model good health and safety attitudes while undertaking practical activities.
- Encourage children to use scientific language and become effective communicators of scientific ideas, using facts and data to help develop their scientific vocabulary by articulating scientific concepts clearly and precisely.
- Celebrate children's achievements in Science as an important way of developing children's self-confidence and motivation.
- Ensure that pupils build secure foundations by using discussion to probe and remedy their misconceptions.

At Eynesbury Primary School:

All classes have weekly lessons in Science throughout Key Stage 1 and 2, using various programmes of study and resources. In Early years, science is taught through the children learning about the world around them in their 'learning through play'. Additional opportunities are provided in Science, such as National Science Week, STEM club and Forest Club. Science is enriched by visits to places of scientific discovery, such as Hinchbrook Country Park, Grafham, Hilltop, Isle of Wight, zoos and wildlife parks. Visitors from the community also visit the school, including the Dogs Trust, NSPCC and people from scientific backgrounds, such as medical practitioners.

We endeavour to ensure that the Science curriculum we provide will give children the confidence and motivation to continue to further develop their skills into the next stage of their education and life experiences. We follow the Grammarsaurus Scheme of Work.

Curriculum Implementation

Teachers create a positive attitude to science learning within their classrooms and reinforce an expectation that all children are capable of achieving high standards in science. Our whole school approach to the teaching and learning of science involves the following:

- Science will be taught in planned and arranged topic blocks by the class teacher. This is a strategy to enable the achievement of a greater depth of knowledge.
- Through our planning, we involve problem solving opportunities that allow children to find out for themselves. Children are encouraged to ask their own questions and be given opportunities to use their scientific skills and research to discover the answers. This curiosity is celebrated within the classroom. Planning involves teachers creating engaging lessons, often involving high-quality resources to aid understanding of conceptual knowledge. Teachers use precise questioning in class to test conceptual knowledge and skills, and assess children regularly to identify those children with gaps in learning, so that all children keep up.
- We build upon the learning and skill development of the previous years. As the children's knowledge and understanding increases, and they become more proficient in selecting, using scientific equipment, collating and interpreting results, they become increasingly confident in their growing ability to come to conclusions based on real evidence.
- Working Scientifically skills are embedded into lessons to ensure these skills are being developed throughout the children's school career and new vocabulary and challenging concepts are introduced through direct teaching. This is developed through the years, in-keeping with the topics.
- Teachers demonstrate how to use scientific equipment, and the various Working Scientifically skills in order to embed scientific understanding. Teachers find opportunities to develop children's understanding of their surroundings by accessing outdoor learning and workshops with experts.

Early Years

Children in the foundation stage follow the Early Years Foundation Stage (EYFS) curriculum and science is taught within the 'Understanding of the World' strand. Science in the Early Years is taught through discovery based learning. The children have access to a wide variety of Continuous Provision which allows them to explore their own ideas and questions. Through direct questioning and discrete Understanding of the World, teacher-led sessions, learning can be deepened and built upon, following the children's interests. Teaching staff also add enhancements to the provision areas to widen or deepen understanding. (See Progression from EYFS to Y1 Science document)

Key stage 1 and 2

Key Stages One and Two follow the National Curriculum, using technology where appropriate. Teaching strategies include working scientifically activities to motivate and challenge children's learning. Through these tools science lessons are imaginative, purposeful, well managed and enjoyable. Working scientifically specifies the understanding of the nature, processes and methods of science for each year group. Scientific enquiry is embedded within the content of every topic in 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. Types of scientific enquiry taught include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils seek answers to questions through collecting, analysing and presenting data. Children's progress is reported to parents against year group expectation at the end of each key stage, building on existing knowledge and skills to ensure progression. Links are made between science and other subject areas wherever possible and we give clear and accurate explanations and use open ended questions. Key Stage One and Foundation Stage teach at least one hour of Science per week, in Key Stage Two this increases to 2 hours of science per week. However during the

current academic year some classes have chosen to 'block' their non-core subjects. Home learning tasks will be given to support class teaching and learning. We are currently trialling a subscription to Whizz Pop Bang, to further enhance our Science lessons and make links to the English curriculum through good quality Reading Comprehension texts.

Science and Inclusion

At our school, we teach Science to all children, regardless of ability and individual need. This is in accordance with the school's curriculum policy of providing a broad and balanced education to all children. Through our Science teaching, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and if necessary, those learning English as an additional language, and we take all reasonable steps to achieve this.

We enable all pupils to have access to the full range of activities involved in learning in Science. Where children are to participate in activities both inside and outside the classroom, e.g. forest school, practical investigation and experimentation, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. Teachers have access to CLEAPS, for support in carrying out risk assessments for Science.

Curriculum Impact

The successful approach at Eynesbury Primary School results in a fun, engaging, high-quality science education, that provides children with the foundations for understanding the world. Our engagement with the local environment ensures that children learn through varied and first hand experiences of the world around them. So much of science lends itself to outdoor learning and so we provide children with opportunities to experience this. Through various workshops, trips and interactions with experts and local charities, children have the understanding that science has changed our lives and that it is vital to the world's future prosperity. Children learn the possibilities for careers in science as a result of our community links and connection with national agencies such as the STEM association and upper schools in the area. Pupil voice is used to further develop the Science curriculum, through questioning of pupil's views and attitudes to Science to support the children's enjoyment of science and to motivate learners.

Assessment will be undertaken using the following methods:-

- observation of pupils
- talking with pupils
- marking written work
- self-assessment
- peer assessment
- the evaluation of discussion

Children in EYFS are assessed using the Early Years framework. Children at Expected level of Development at the end of year- Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur, and talk about changes.

Science curriculum planning

Our Whole School Long Term Plan maps out the Science covered by each year group, each term and the scientist they will be learning about, linked to the topic. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term and how we ensure progression across year groups. Knowledge organisers are used to support the learning and teaching in science. Medium term plans are also in place.

Spiritual, moral, social and cultural development

At Eynesbury, Science gives pupils an opportunity to explore the world through hands on experience and build on their own beliefs and prior knowledge. Sometimes new information may challenge previous beliefs, but through our open and inclusive ethos, children are given the opportunity to discuss, ask questions and suggest

their own ideas and beliefs in a safe, neutral environment, which is not hindered by social, cultural, linguistic or gender bias. This ensures that science is open to all pupils and allows them the opportunity to achieve their full potential.

Ensuring continuity and progression in learning

Although we know that knowledge is an important part of the learning for Science, we feel that by sequencing the content is not enough to ensure our learners become better scientists. Therefore to ensure continuity and progression for all pupils, the curriculum is carefully organised through EYFS to Year 6, to ensure that their knowledge and understanding of science develops by:

- Expected subject outcomes, in terms of developing as a young scientist, increase in complexity and level of challenge
- The breadth and depth of the study deepens, through carefully planned activities, which submerge the children in a sense of wonder to encourage questioning and discussion, but also give them a hands-on, personal experience to make the learning more memorable.
- The Working Scientifically Skills are at the forefront of science teaching at Eynesbury, so that the children can acquire and hone skills in enquiry and enable them apply these skills across the science strands of the National Curriculum.
- The Scientific enquiry is often linked to everyday situations and environments to make the learning meaningful and memorable for our learners.
- Pupils are asked to hypothesise and reflect on their learning journey.

Roles and Responsibilities

- **The Governing Body** the Teaching and Learning Monitoring Group is responsible for setting and reviewing this policy, monitoring its effective enactment (through visits and reports from the Senior Management Team and the Subject Manager) and for the provision of resources.
- **The Subject Leader** is responsible for supporting and monitoring all staff, holding review meetings with staff and, where necessary, modifying the use of the planning within school to ensure continuity and progression. The Subject leader is also to ensure effective use of curriculum resources and keep both the Senior Leadership Team and the Curriculum Committee apprised of current and future curriculum needs. The Science Leader, along with the SENCo, advises teachers of the Science support which can be provided for children with particular needs, including higher achievers.
- **The Senior Leadership Team** is responsible for supporting and monitoring the subject leader and all other staff and for the provision of appropriate INSET.
- **Teaching Staff** (and through them other staff of the school) are responsible for the delivery of Science consistent with this policy, the scheme of work and teaching in line with the National Curriculum. They are to provide feedback to the Subject leader so that the delivery of Science is continuously improved. They are responsible for the assessment and recording of pupil achievement and using that assessment data in medium and long-term planning and target setting.
- **Parents** The school encourages parents to make a positive contribution to their children's understanding and use of Science through home learning and other activities.

Health and Safety

This is an essential aspect of the curriculum. Children must be taught to handle equipment and resources safely as part of the taught curriculum skills. Teachers should be familiar with the guidelines in 'Be Safe' (ASE Publications), County Health and Safety Manual - science section and carry out risk assessments for activities beyond the norm for a classroom environment. Eynesbury C of E School is a member of CLEAPSS, every member of staff has the shared log in and password for the school to enable them to access help and support regarding safety in Science and managing risks.

Resources

Science resources are stored in the science resource cupboard located in the school hall and in outdoor storage for the pond and forest area. The science leader will order resources to fulfil the needs of the curriculum, by liaison with teachers. There is an order list in the Science cupboard, which teachers should fill in at the end of a unit, so that items can be ordered for the next time it's needed. Teachers should check resources in advance of

lessons to ensure they have all necessary resources. Organisation and effective management of resources is crucial to their successful use. Every measure is taken to ensure that resources are available. All staff are responsible for using these carefully and returning them tidily to the appropriate storage space. A box of Science resources is available to pupils at lunch times in both Key Stages. Pupils must 'sign-up' to use the resources and ensure they are placed back into the designated box at the end of lunch time.

Monitoring

Monitoring by the Science Subject Leader, the Headteacher and Senior Leadership Team takes place through triangulation of data, book scrutinies and lesson observations.

Review: as appropriate

Signed:.....

Date:.....