

## **Golborne St. Thomas' C of E J & I School**

### **Science Policy**

#### **A journey in faith, arriving with hope.**

##### **St. Thomas' School vision:**

##### **To ensure the children are highly valued by all members of the school community.**

St. Thomas' creates a culture of high aspirations by making the school the heart of the community. We aim to develop a culture of curiosity and creativity by unleashing our children's God-given potential to make a difference in our locality and beyond.

Our parents, staff and governors see and understand the individual talents of each pupil and the opportunities provided. We openly celebrate and reward children's successes and achievements.

##### **To inspire all children through a broad, balanced and engaging curriculum enabling every child to succeed.**

We create an ethos where everyone is an explorer and an active participant. Children are challenged and encouraged to thrive in all areas. Our aim is to nurture talent and ensure children are equipped to live life in all its fullness.

Children experience a wide range of high-quality lessons and enrichment activities daily. We recognise that children are naturally curious; therefore, child-led learning is developed through their questions.

##### **To nurture children's wellbeing to ensure healthy mind, body and spirit.**

At St. Thomas' values are at the heart of all we do. We provide a safe, supportive environment which empowers children to grow and develop their self-worth, self-esteem and self-respect. Our unique learners are resilient and are willing to take big risks to make big leaps.

Values are actively promoted, modelled, and celebrated by all. Our inspiring curriculum and pastoral care teaches children the importance of healthy lifestyles: physically, mentally and spiritually.

### **Science Policy**

#### **Intent**

Here at Golborne St Thomas', we believe that high quality science teaching provides children with the foundations for understanding the world. Science has changed lives and therefore it is vital for us to teach the appropriate knowledge, methods, processes and uses to our pupils encouraging excitement and curiosity about natural phenomena. Science topics change throughout the year to ensure children are exposed to many different experiences and challenges.

This policy reflects the requirements of the [National Curriculum programmes of study](#), which all maintained schools in England must teach.

It also reflects requirements for inclusion and equality as set out in the [Special Educational Needs and Disability Code of Practice 2014](#) and [Equality Act 2010](#), and refers to curriculum-related expectations of governing boards set out in the Department for Education's [Governance Handbook](#)

## **Aims**

- Teaching science in ways that are imaginative, purposeful and enjoyable.
- Giving clear and accurate teacher explanations and offering skilful questioning.
- Making clear links between science and other subjects. In particular, design and technology, engineering and maths (STEM).
- Ensuring children are given enough time to study the four main areas of the science curriculum. These are: scientific enquiry, life and living processes, materials and their properties and physical processes.
- Offering ample opportunity for practical investigation and enquiry in and out of the classroom.

## **Curriculum Coverage**

### **Key Stage One (Years 1 and 2)**

During Key Stage one, pupils observe, explore and ask questions about living things, materials and the world around them. They begin to work together to collect evidence to help them answer questions, find patterns, classify and group objects, research using a variety of sources and become familiar with the concept of a fair test. They will share their ideas and communicate them using scientific vocabulary, drawings, charts, and tables. Areas of science covered includes: Plants, Animals including Humans, Everyday Materials, Seasonal Changes and Living things and their Habitats.

### **Lower Key Stage Two (Years 3 and 4)**

Children are encouraged to extend the scientific questions which they ask and answer about the world around them. Children will make some decisions about which types of enquiries will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources. They will make systematic and careful observations and, where appropriate, take accurate measurements using a range of equipment. Areas of science covered includes: Plants, Animals including Humans, Rocks, Light, Forces and Magnets, Living things and their Habitats, States of Matter, Sound and Electricity.

### **Upper Key Stage 2 (Years 5 and 6)**

In Upper Key Stage 2, science enables children to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas, asking their own questions about scientific phenomena and analysing functions, relationships and interactions more systematically. Children should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. Children will take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate, choosing the most appropriate equipment and explaining how to use it accurately. They will make their own decisions about what observations to make, what

measurements to use and how long to make them for and whether to repeat them. Areas of science covered includes: Living things and their Habitats, Animals including Humans, Properties and Changes of Materials, Earth and Space, Forces, Evolution and Inheritance, Light and Electricity.

### **Science Provision**

Science is taught as part of topic learning over a two-year cycle and follows the National Curriculum. The topics are organised to suit the age and skills of the children to ensure an even coverage of science teaching and skills across year groups.

Teaching and learning within science will follow an EYFS approach suiting the learning much more to the interests of the learners. Each new topic will be introduced with a 'WOW' lesson to hook the children's interest and stimulate their curiosity; the children will then generate their own questions from this which will form the basis of lessons and learning throughout the topic therefore making learning more purposeful and meaningful to the children.

Children's prior knowledge of a topic will be documented using mind maps that are uploaded to Seesaw which will be repeated post learning, after the topic to monitor progress and assess their learning. Science will be evidenced in several different ways, work in topic books, on classroom and school displays as well as on Seesaw. This will ensure that children get to experience a wide range of learning activities which will allow them to fully explore the topic they are studying.

### **Governors**

It is the statutory duty of the governors to ensure that the school follows its responsibilities to meet the needs of children within science in accordance with the National Curriculum.

### **Further Information**

For full details and to answer any further questions you may have, please consult our School Information Report, found on our school website.

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