



# William Gilpin Church of England VA Primary School

## Science Policy

### Aims and Objectives

At William Gilpin School, our aims reflect those in line with the National Curriculum as outlined below.

### ***Purpose of study***

*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.*

### **Aims**

*The national curriculum for science 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*
- *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 through developing a child's ability to be curious and to find out why things may happen around them.*

**National Curriculum, 2014**

At William Gilpin our Science curriculum encourages pupils to operate as scientists, using scientific methods and processes to make predictions, explain, analyse and draw conclusions from data. Teaching is adapted and personalised to inspire life-long curiosity and excitement about natural phenomena.

Set in the New Forest, our curriculum uses our local environment as much as possible to put knowledge into context and use our natural surroundings to ask questions, investigate, collect data and draw conclusions.

### **Teaching and Learning**

Through the teaching of Science, lessons are structured in a way that pupils are posed with an interesting and motivating question. Relevant knowledge is taught through contextualisation and application to the real world and builds clearly on prior learning from previous lessons. Pupils are then applying this knowledge to an investigation that seeks to answer the problem originally asked. Experiments should develop the children's skill sets of working scientifically to predict,



hypothesise, classify, collect and analyse data and draw conclusions. Teachers approach lesson with a precise vision of what they want pupils to learn and use their questioning to engage with uncertainty. Challenge comes from pupils using and applying their knowledge of simple concepts in challenging ways.

### **Progression**

Science is taught through weekly stand-alone lessons throughout the school. We recognise that within the National Curriculum, Science learning and attainment targets are arranged discretely per year group. Due to this, we have made the decision to teach Key Stage 2 in their discrete year groups. This ensures that they progress through the Science curriculum successfully.

The science curriculum at William Gilpin is recursive and children revisit the key scientific units multiple times throughout their school experience. Knowledge and understanding is retained by pupils to encourage a life-long interest and curiosity about the world around them and their previous learning is built upon continuously. In accordance with the National Curriculum, the planning and teaching of Science at William Gilpin ensures that all pupils are 'working scientifically' within and alongside every unit of study.

### **The Foundation Stage**

Science in the Foundation Stage is taught through the Understanding the World part of the Foundation Stage Curriculum. Children are provided with 'hands on opportunities' to investigate, observe, ask and answer questions, become inquisitive and to further their knowledge and understanding of the world. All of these skills help to prepare them for Science in Key Stage 1.

### **Inclusion**

Everything reasonable will be done to ensure that children with disabilities and SEN have as full an access to the science curriculum as possible.

### **Health & Safety**

At William Gilpin, we want all children to learn Science in a safe manner. We recognise that there are risk to be considered in the teaching of Science. Each year, we complete a science safety audit to ensure that as a school we are complying with Health and Safety regulations within the subject. Teachers are expected to risk assess where appropriate and are all aware of how to access CLEAPSS (Consortium of Local Education Authorities for the Provision of Science Equipment) recourses and hazard cards. There are specific risk assessments for some activities, for example the use of the pond. Any trips outside of school are risk assessed and go through the EVOLVE process.

### **Impact**

In order to monitor the quality of education within Science, we use a number of approaches. Learning walks and work scrutinies are used to assess the quality of teaching throughout the subject as well as how pupils are progressing towards the National Curriculum attainment targets.

In addition to this, class teachers assess children's progress against curriculum objectives, which are both knowledge and skill based, in line with pupils' understanding of the scientific concepts being taught and the working scientifically skills being applied. Teachers use formative assessment in the classroom and half-termly foundation subject conferences at the end of each Science topic. Parents receive this information in an annual written report in the summer term.



**This policy will be reviewed in the Autumn Term of 2024 or in the light of new legislation.**

**Signed:**

**Chair of Governors:**

**Date: December 2019**