



## St Augustine's Catholic Primary School and Nursery

### Science Policy

#### **AIMS OF SCIENCE POLICY**

Our Science Policy follows The National Curriculum 2014 for Science Guidelines and 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

#### **PURPOSE OF STUDY-WHY TEACH SCIENCE?**

A high-quality science education provides foundations for understanding the world. Science has changed our lives and is vital to the world's future prosperity. Through building key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rationale, explanation and develop a sense of excitement and curiosity about natural phenomena. They should be encouraged to understand how key knowledge and concepts can be used to explain what is occurring, predict how things will behave, and analyse causes. This understanding should be consolidated through their appreciation of applications of science in society and the economy.

In teaching science we are developing in our children:

- a positive attitude towards science and an awareness of its fascination;
- an understanding of science through a process of enquiry and investigation;
- confidence and competence in scientific knowledge, concepts and skills;
- an ability to reason, predict, think logically and to work systematically and accurately;

- an ability to communicate scientifically;
- the initiative to work both independently and in co-operation with others;
- the ability and meaning to use and apply science across the curriculum and real life.

## **PLANNING**

### **School curriculum**

The programmes of study for science are set out year-by-year for Key Stages 1 and 2. We are however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, school has the flexibility to introduce content earlier or later than set out in the programme of study and may introduce key stage content during an earlier key stage if appropriate. This is especially important as we have mixed age classes. Staff meeting time and Co-ordinator time is used to ensure correct coverage is planned for.

Teachers base their planning on the programmes of study for their relevant year groups and ensure the coverage is within and beyond national expectations, ensuring children make progress in line with national expectation and above throughout the academic year.

### **Scientific knowledge and conceptual understanding**

The programmes of study describe a sequence of knowledge and concepts. While it is important that pupils make progress, it is also vitally important that they develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage.

Pupils should be able to describe processes and key characteristics of science, but they should also be familiar with, and use, technical terminology accurately and precisely. They should build up an extended specialist vocabulary. They should also apply their mathematical knowledge to their understanding of science, including collecting, presenting and analysing data.

### **The nature, processes and methods of Science**

'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.

### **Teacher knowledge and understanding**

#### **CPD**

The subject leader is to support any member of staff with subject knowledge and delivery of the new Science curriculum throughout any point in the academic year. The CPD will be offered through:

- sharing outstanding practice in Science;
- working closely with staff during different stages of planning;
- provide opportunities for the staff to attend external training opportunities within subject specific areas;

### **Attainment targets**

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study. See the schools attainment targets by the end of key stage 1 and 2.

## **ASSESSMENT**

### **This is achieved through:**

- discussion with pupils;
- observation of pupils;
- marking work;

All assessment data is analysed by the subject leader termly. Actions from these are fed back to staff and subsequent monitoring priorities are linked directly to these actions.

## **MONITORING AND EVALUATION**

The Subject Leader follows the school Self Evaluation for Subject Leaders guidelines and is achieved through;

- monitoring and evaluation of pupils work;
- rigorous assessment and tracking of pupil data;
- learning walks;
- pupil interviews to evaluate their aspirations for the subject;

## **SAFETY**

Following COSHH guidance, 'Be Safe' and schools health and safety policy as outlined on our school website.

## **PARENTAL INVOLVEMENT**

Following the guidelines in the whole school policy, parents may be involved in class based work if they can offer a particular skill or extend and compliment the class teachers' skills and knowledge. All parental involvement must take place under supervision of the class teacher at all times.

## **REPORTING TO PARENTS**

Following whole school policy based on National requirements and HBC guidelines.

## **MARKING WORK**

Refer to the whole school policy.

**Review Policy: July 2020**