

Driffield CE Infant School

# Science Policy



*'Learn to let your light shine'*

*Matthew 5: 14-16*

**January 2025**

## **Statement of intent**

Drifffield CE Infant School welcomes all God's children and their families and is a place where children of all faiths and none flourish and are inspired by the Christian character and values of our school and learn to love God, one another and themselves (Mark 12:30-31) in order that they can 'Live life in all its fullness' (John 10:10)

It is this ethos underpinned by the words from Matthew 5: 14-16 'Learn to let your light shine' that underpins our curriculum and the teaching of science.

Drifffield CE Infant School recognises the importance of science education in teaching pupils about the world around them. This policy will ensure the school complies with the national curriculum and help pupils have a solid grounding in science, a positive attitude towards scientific knowledge, and a strong understanding of experimental processes.

## 1. Roles and responsibilities

The governing board is responsible for:

- Ensuring a broad and balanced science curriculum is implemented in the school.
- Ensuring the school's science curriculum is accessible to all pupils.

The Headteacher is responsible for:

- The overall implementation of this policy.
- Ensuring the school's science curriculum is implemented consistently.
- Ensuring appropriate resources are allocated to the science curriculum.
- Ensuring all pupils are appropriately supported.
- Appointing a member of staff to lead on the school's approach to teaching science.

The science lead is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for science.
- Reviewing changes to the national curriculum and advising on their implementation.
- Monitoring the learning and teaching of science, providing support for staff where necessary.
- Organising the deployment of resources and carrying out an audit of all science resources.
- Leading staff meetings and providing relevant staff with the appropriate training.
- Advising on the contribution of science to other curriculum areas.

## 2. The national curriculum

The national curriculum will be followed for all science teaching.

During Early Years Foundation Stage (EYFS), in accordance with the 'Statutory framework for the early years foundation stage', focus will be put on the seven early learning goals (ELGs), with the scientific aspect of pupils' work relating to the objectives set out within the framework.

During Years 1 and 2, pupils will be taught to:

### Working scientifically

- Ask simple questions and recognise that they can be answered in different ways.
- Observe closely, using simple equipment.
- Perform simple tests.
- Identify and classify.
- Use their observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.

Year 1 pupils will also be taught to:

### Plants

- Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.

- Identify and describe the basic structure of a variety of common flowering plants, including trees.

### **Animals, including humans**

- Identify and name a variety of common animals, including fish, amphibians, reptiles, birds and mammals.
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.
- Describe and compare the structure of a variety of common animals, i.e. fish, amphibians, reptiles, birds and mammals, including pets.
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

### **Everyday materials**

- Distinguish between an object and the material from which it is made.
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.
- Describe the simple physical properties of a variety of everyday materials.
- Compare and group together a variety of everyday materials on the basis of their simple physical properties.

### **Seasonal changes**

- Observe changes across the four seasons.
- Observe and describe weather associated with the seasons and how day length varies.

Year 2 pupils will also be taught to:

### **Living things and their habitats**

- Explore and compare the differences between things that are living, dead, and things that have never been alive.
- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other.
- Identify and name a variety of plants and animals in their habitats, including microhabitats.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.

### **Plants**

- Observe and describe how seeds and bulbs grow into mature plants.
- Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.

### **Animals, including humans**

- Notice that animals, including humans, have offspring which grow into adults.

- Find out about and describe the basic needs of animals, including humans, for survival, i.e. water, food and air.
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

### **Uses of everyday materials**

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard, for particular uses.
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

## **3. Cross-curricular links**

Where possible, the science curriculum will provide opportunities to establish links with other curriculum areas. This includes:

### **English**

- Pupils' writing skills are developed through recording their planning, what they observe and what they found out.

### **Maths**

- Pupils use their knowledge and understanding of measurement and data handling, including through recording their findings on tables and graphs.

### **PSHE**

- Health education is taught as part of the science units about humans, including information about healthy lifestyles, growth and age,

### **Geography**

- identify seasonal and daily weather patterns in the United Kingdom is also taught in Y1 throughout the year.

## **4. Teaching and assessment**

Throughout the school, science is taught as a discrete lesson and as part of cross-curricular teaching when appropriate. The statutory national curriculum content from the DfE's 'Science programmes of study: key stages 1' as outlined above, as the starting point for their planning.

Long-term planning will be used to outline the units to be taught within each year group. Medium-term planning will be used to outline the vocabulary and skills that will be taught in each unit of work, as well as highlighting the opportunities for assessment, identifying learning objectives, main learning activities and differentiation. Short-term planning will be used flexibly to reflect the objective of the lesson, the success criteria and the aim of the next lesson, building on medium-term planning and taking into account pupils' needs.

## Teaching

Pupils will be taught to describe associated processes and key characteristics in common language, as well as understand and use technical terminology and specialist vocabulary. Lessons will allow for a wide range of scientific enquiry, including the following:

- Questioning, predicting and interpreting
- Pattern seeking
- Practical experiences
- Collaborative work
- Carrying out investigations
- Carrying out time-controlled observations
- Classifying and grouping
- Undertaking comparative and fair testing
- Researching using secondary sources

Opportunities for outdoor learning will be provided where possible. Each year group will have the opportunity to undertake science-based external educational visits at least every term with visits to Elmswell Farm and also to Kingsmill woods and meadow.

## Assessment

Pupils will be assessed and their progression recorded on ScholarPack at the end of each topic. Assessment in science will be based upon scientific knowledge and understanding. This will enable teachers to identify pupils' understanding of subjects and inform their immediate lesson planning. The results of end-of-year summative assessments will be passed to relevant members of staff, such as the pupil's future science teacher.

Assessment will take various forms, including the following:

- Talking to pupils and asking questions
- Discussing pupils' work with them
- Marking work against learning objectives
- Specific assessment tasks for individual pupils (links to SEN provision)
- Observing practical tasks and activities
- Classroom assessments.

Parents will be provided with a written report about their child's progress during the Summer term every year. Reports will include information on the pupil's attitude towards science, progress in understanding scientific methods, ability to investigate, and the knowledge levels they have achieved. Verbal reports will be provided at parent-teacher meetings during the Autumn and Spring terms.

## 5. Equipment and resources

Science resources for each unit are stored in the porch in Kestrel classroom.

The science lead is responsible for ensuring that all resources and equipment are sufficiently maintained. The science lead will carry out an audit of the science resources, reordering any consumables when necessary.

Equipment will be checked by the relevant science teacher prior to each use and any damages or defects will be reported to the science lead immediately. Staff will also inform the science lead of any changes regarding science resources, such as when supplies of resources have run out or new resources are required. The science lead is responsible for negotiating requests from staff and ensuring resources are bought within the amount allocated in the annual budget.

## **6. Equal opportunities**

All pupils will be given equal access to the entire science curriculum, including practical experiments.

Where required, pupils with SEND will be provided with additional support in order to fully engage with the science curriculum.

Where it is inappropriate for a pupil to participate in a specific lesson because of reasons related to any protected characteristics, the lesson will be adapted to meet the pupil's needs and alternative arrangements involving extra support will be provided where necessary.

The school aims to provide more academically able pupils with the opportunity to extend their scientific thinking through extension activities such as problem solving, investigative work and scientific research.

## **7. Monitoring and review**

This policy will be reviewed every three years by the science lead, in collaboration with staff and the Headteacher.

The next review date will be January 2028