

# Worlingham CEVC Primary School



## Science Subject Policy

Due consideration has been given to all children/adults/stakeholders with regard to the protected characteristics under the Equality Act 2010.

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# Worlingham CEVC Primary School

## SCIENCE SUBJECT POLICY

This policy outlines the vision, intent, implementation, and impact of the Science curriculum at Worlingham CEVC Primary School. It aligns with the statutory requirements of the National Curriculum in England (DfE, 2014) and reflects expectations outlined in the Ofsted Education Inspection Framework (EIF, 2023) focusing on intent, implementation and impact.

## 1. Vision and Intent

### 1.1 Vision Statement

At Worlingham CEVC Primary School, we aim to deliver a Science curriculum that fosters a love for discovery and investigation. Our learners explore their natural environments through rich, practical and enquiry-based learning that reflects the scientific processes.

We endeavour to:

- Develop inquisitive, reflective and critical thinkers.
- Enable pupils to engage with Science in a way that promotes lifelong curiosity.
- Link Science learning to real-world contexts, fostering discussions on sustainability, health, and technology.

### 1.2 Intent

By the time children leave Worlingham CEVC Primary School, they will:

- Have developed scientific knowledge and conceptual understanding across biology, chemistry and physics.
- Be competent in selecting appropriate scientific enquiry types (e.g. observation, fair testing, identifying patterns, secondary research).
- Have developed the full suite of "working scientifically" skills such as predicting, testing, observing, measuring, recording, explaining and evaluating.
- Be able to use scientific vocabulary accurately and fluently.
- Be confident to express their own scientific ideas and challenge misconceptions.
- Be ready for the transition to Key Stage 3, with secure key knowledge and practical experience.

This intent is informed by the **National Curriculum for Science (DfE, 2014)** and is aligned with the **Ofsted EIF (2023)** emphasis on curriculum progression, knowledge retention and sequencing.

## 2. Implementation

### 2.1 Curriculum Design

The Science curriculum is mapped across EYFS to Year 6 against the National Curriculum, with a clear progression of knowledge, working scientifically skills, and vocabulary. Medium term plans ensure full coverage of statutory programmes of study, distributed across year groups to build on prior learning and prepare for subsequent content.

### 2.2 Teaching Structure

Worlingham's Science lessons are structured around a two-part teaching model:

- **Part One:** Introduction to fundamental knowledge and key vocabulary.
- **Part Two:** Application of knowledge through hands-on, skills-based, investigative activities.

### 2.3 Pedagogical Strategies

Our consistent strategies include:

- **Memory retrieval techniques:** Use of quick quizzes, knowledge organisers, and discussion to reinforce key concepts.
- **Explorify:** A visual and interactive tool used to stimulate curiosity and scientific talk.
- **Use of concept cartoons:** To promote discussion of common misconceptions.

- **AFL techniques:** Used during and after lessons to assess understanding and adapt teaching as needed.

## 2.4 Addressing Misconceptions

Children are consistently encouraged to ask questions and explore ideas in a safe environment. Teachers:

- Use formative assessment to highlight misconceptions.
- Plan accordingly to address gaps or incorrect beliefs.
- Use classroom talk, models and carefully selected resources to clarify scientific principles.

This meets the Ofsted expectation to "check pupils' understanding systematically and effectively" (EIF, 2023).

## 2.5 Scientific Vocabulary

Vocabulary is explicitly taught, reinforced through repetition, and applied in context via oral and written work. Vocabulary is displayed prominently in classrooms, noted in books and modelled by staff. A whole-school progressive vocabulary map ensures consistency and challenge across year groups.

## 2.6 Working Scientifically Skills

Children are taught all five types of scientific enquiry:

1. **Comparative and fair testing**
2. **Observing changes over time**
3. **Pattern seeking**
4. **Identifying, classifying and grouping**
5. **Using secondary sources/research**

Through structured practice and cumulative progression, children:

- Plan and conduct their own investigations.
- Choose and use appropriate equipment.
- Make predictions and measure accurately.
- Record findings in various forms (charts, tables, scientific diagrams).
- Draw conclusions and evaluate their investigations.

This approach meets the National Curriculum requirement for developing scientific enquiry skills embedded within knowledge content.

## 2.7 Enrichment

- Science Week held annually in May: Children engage in cross-curricular investigations around a central theme.
- STEM links with local secondary schools and STEM ambassadors broaden awareness of scientific careers.
- School trips and visitors enrich learning by linking curriculum content to real-life science applications and industries.

## 2.8 Inclusion

In line with DfE guidance ("Inclusive teaching and the curriculum", 2022), we ensure:

- Scaffolded tasks and differentiated activities support SEND learners.
- Opportunities for greater depth provided for high-attaining pupils.
- Adaptive teaching strategies are used to engage all learners effectively.

# 3. Impact

## 3.1 Monitoring and Assessment

Assessment is built into every unit using a balance of formative and summative approaches. Staff assess against defined end-of-unit objectives informed by the National Curriculum. End-of-term assessment outcomes are recorded and tracked to monitor pupil progress and inform future teaching.

## 3.2 Evidence of Progress

Pupil voice, books and lesson observations show high engagement and clear progress. Progression in scientific vocabulary and skills, e.g. use of terms like 'evaporation', 'photosynthesis', or 'forces', is evident year on year. Internal monitoring (book looks, learning walks, assessments) confirms coverage, progression, and standards.

### **3.3 Preparation for Secondary Education**

By Year 6, children:

- Demonstrate secure understanding and application of the KS2 Science curriculum.
- Are familiar with using scientific methods and terminology.
- Can confidently plan investigations, hypothesise, measure, record, draw conclusions and evaluate.
- Transition meetings with secondary schools and learner profiles (including Science attainment) help ensure continuity of learning.

## **4. Roles and Responsibilities**

### **4.1 Science Subject Leader**

The Science Subject Leader is responsible for:

- Leading curriculum development and ensuring coverage and progression.
- Providing CPD and sharing best practice across staff.
- Monitoring teaching and learning through book scrutinies, pupil voice, and lesson observations.
- Analysing assessment data and reporting on Science attainment and progress.
- Liaising with SLT and governors on subject development priorities.

### **4.2 Teachers**

Class teachers are responsible for:

- Delivering engaging, high-quality science lessons.
- Planning using agreed medium-term and progression planning documents.
- Assessing pupils and adapting teaching to meet learner needs.
- Using subject-specific vocabulary in teaching.

## **5. Continuing Professional Development**

Teachers have access to:

- CPD through local science clusters, STEM Learning, and the Primary Science Teaching Trust (PSTT).
- Support from the subject leader and opportunities to observe best practice.
- Resources and materials that support curriculum delivery.

## **6. Policy Evaluation and Review**

This policy will be evaluated and reviewed annually by the Subject Leader in consultation with the SLT and governors. Feedback from staff, monitoring data, and national guidance (including updates to the curriculum or Ofsted frameworks) will inform future amendments.

## **SAFEGUARDING STATEMENT TO ACCOMPANY POLICY DOCUMENTS**

Throughout this policy runs our commitment to safeguarding the wellbeing of all our pupils at Worlingham CEVC Primary School. The values, beliefs and ethos of Worlingham Primary School are shared by all members of staff and the adherence to the guidance as stated in the school's Safeguarding Policy is of paramount importance.

The wellbeing and safety of pupils has a positive impact on their attendance, behaviour, their own Health and Safety, learning within the school environment as well as on educational visits.

Throughout the curriculum children are taught how to manage risk and how to keep themselves safe. The children know that if they need help they can talk to a member of staff at school. Children are taught how to keep themselves safe whilst using ICT equipment and are instructed to report any inappropriate material to the member of staff leading the session.

Children who have an identified SEN which creates difficulties with communication may need additional support in expressing concerns to a member of staff. Staff will need to follow the guidance in the safeguarding policy when dealing with a disclosure, taking into account the ability of the individual.

A copy of the Safeguarding policy can be found on the school website, in the Headteacher's office and also the staff room. This policy provides comprehensive detail in identifying types of abuse and the procedures that need to be followed.

Within the Safeguarding Policy is a section on The Prevent Duty and what it means for our School.