



The Winterton Federation Science Policy



“TO BE THE BEACON FOR LEARNING”

*“The teaching of your word is light, so everyone can understand”
(Psalms 119:130)*

Introduction

Science is a highly valued area of the curriculum at The Winterton Federation, and is taught in line with National Curriculum objectives and expectations. Through Science, we aim to develop curiosity, enjoyment and skills in order to produce independent learners with the ability to make sense of the world around them. Children are encouraged to ask questions and follow a variety of enquiries to improve their understanding of a range of scientific genres. As a result, children gain skills and abilities vital for testing and investigating, whilst building up a good knowledge of Science itself.

The implementation of this policy is the responsibility of all staff.

Aims and objectives

The aims and objectives of teaching Science at The Winterton Federation are as follows:

- To develop scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics;
- To develop an understanding of the processes and methods relative to science, through different types of enquiries and investigations;
- To equip children with enough scientific knowledge, that they are able to understand the uses and implications of science currently, and in the future;
- To nurture a love of science, so as to inspire a generation of future scientists.

We want pupils to be able to:

- Ask and respond to a range of questions;
- Collect and present data in order to answer these questions;
- Comment accurately or analyse their findings and reflect upon them;
- Make predictions, based on knowledge acquired or findings;
- Evaluate effectively, enabling better practice in future.

Organisation

Science is planned and taught to meet the National Curriculum objectives. To ensure children experience a full and thorough Science curriculum, this is taught for at least one afternoon a week enabling children to regularly build upon skills and knowledge from previous sessions. Each year group follows set objectives relevant to their year, in line with National Curriculum objectives. Where possible, science is taught across the curriculum to provide more contextual and meaningful learning experiences.

Working Scientifically

A key part of the Science Curriculum is “Working Scientifically”, which details the skills that children need to acquire, in order to be considered working at the expected level. These objectives are divided into Years 1 and 2/ Years 3 and 4/Years 5 and 6. For the children to be working scientifically, they are taught to be familiar with the 5 types of enquiries listed within ‘The National Curriculum of Science in England’:

- Observation over time;
- Pattern seeking;
- Identifying, classifying and grouping;



The Winterton Federation Science Policy



- Comparative and fair testing;
- Research using secondary sources.

Teaching and learning style

We use a variety of teaching and learning styles in our science lessons at The Winterton Federation. We use whole-class teaching methods, group work and work requiring individual responses. We combine these with enquiry based research activities. We encourage children to ask, as well as answer questions. We offer them the opportunity to use a variety of technologies and equipment; such as computers, iPads, scientific apparatus and tools.

Inclusion

Equal Opportunities

Classroom activities are planned to challenge and involve all pupils appropriately, according to age and capability, ethnic diversity, gender and language background. We are aware that different children learn in different ways, and the need to allow pupils to work in their preferred styles for some of the time. We use materials for teaching which avoid stereo-typing, and bias, towards race, gender, role or disability.

We deal with such issues clearly and sensitively when they arise. Pupils with Special Educational Needs are catered for in teachers' planning and delivery of lessons.

Health and Safety

A risk assessment is completed for each visit/fieldwork trip undertaken in accordance with Federation/LA policies. Health and Safety policies and procedures are followed when children are using tools and equipment. Please see the Winterton Federation Health and Safety policy for further details on this matter.

Assessment

We assess the children's learning by making informal judgements as we observe them during lessons. The federation's marking policy is implemented to provide written and verbal feedback in order to aid further learning. Assessment for Learning is used routinely in lessons, enhancing the learning experience and contributing to progress in the lesson and over time. Summative assessment is carried out termly using the federation's assessment tracking system.

Subject Leadership

The subject leader coordinates the subject in line with federation policy and expectations.

Science in EYFS

Play underpins the delivery of all the EYFS. Within a secure and Challenging environment, children can explore, develop and experiment as they play to help them make sense of the world. The EYFS strand 'Understanding the World' leads directly to scientific elements of the curriculum and leads to more formalised Science learning (as stated in The National Curriculum for Science in England) in KS1 and KS2.

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