

Zetland Primary School

Science Policy 2016

Teaching Science

At Zetland we believe that the best science teaching fosters and develops pupils' curiosity in the subject whilst also helping them to fulfil their potential. For our pupils to achieve well in science, they need to acquire the necessary scientific knowledge and also be able to enjoy the experience of engaging and purposeful scientific enquiry in order to help them to answer scientific questions about the world around them.

The new National Curriculum states why we teach science in schools:

'A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics...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.'

Aims

Through high-quality science teaching, we aim to help our pupils understand how major scientific ideas have played a vital role in society. Moreover, we aim to prepare our pupils for life in an increasingly scientific and technological world.

Teaching and Learning

At Zetland, teachers plan and deliver high-quality and engaging science lessons incorporating a range of teaching and learning styles. We will provide opportunities for pupils to:

- Learn about science, where possible, through first-hand practical experiences;
- Develop their research skills through the appropriate use of secondary sources;
- Work collaboratively in pairs, groups and/or individually;
- Plan and carry out investigations with an increasing systematic approach as they progress through the school;
- Develop their questioning, predicting, observing, measuring and interpreting skills;
- Record their work in a variety of ways e.g. writing, diagrams, graphs, tables, photographs;
- Read and spell scientific vocabulary appropriate for their age.
- Be motivated and inspired by engaging and interactive science displays which include key vocabulary and relevant questions.
- Learn about science using the outdoor learning environment.

Planning

- Science in the Early Years Foundation Stage is planned using the Early Years Curriculum 'Understanding of the World'.
- Key Stage 1 and 2 teachers plan science lessons using the new National Curriculum, following the Matters, Skills and Processes.
- All science lessons have focussed learning objectives, clear differentiation and success criteria to ensure that pupils make at least good progress.
- 'Working scientifically' is embedded throughout the areas of learning in key stage 1 and 2; this focuses on the key aspects of scientific enquiry which enable pupils to investigate and answer scientific questions.
- At Zetland, teaching groups are organised into mixed year groups - KS1, Lower key stage 2 & upper key stage 2.
- As a result, Science MSP's are organised into 6 learning themes across each teaching phase to be delivered over a two year rolling programme (3 per year).

As follows:

- Year 1/ 2	Cycle A	Humans Seasonal Change Plants
	Cycle B	Materials Animals Living Things and their Habitats
- Year 3/4	Cycle A	Rocks & Sand Humans States of Matter
	Cycle B	Electricity & Light Forces & Magnets Plants/ Animals/ Living Things and Habitats
- Year 5/6	Cycle A	Evolution Humans Electricity & Forces
	Cycle B	Earth & Space Light Living Things and Habitats Properties/ Changes of Materials.

For more detailed coverage of how the Matters, skills and processes are covered, please refer to the whole school curriculum overview grid.

Monitoring

- Planning and work book scrutiny will be carried out regularly by the science subject leader and feedback is given to teachers at an appropriate time.

Assessment and Record Keeping

- Achievements are recorded using a wide variety of methods providing all children with an opportunity to demonstrate their knowledge and understanding.
- In Nursery and Reception all work is directly linked to the EYFS curriculum. Attainment grids are used to record assessments in Nursery and Reception.
- All work in KS1 and KS2 is directly linked to the new National Curriculum against the MSP's and attainment is recorded on attainment grids to enable pupils' work to be measured against age expected outcomes.

Resources

- The subject leader is available for support where needed.
- Resources for each unit are stored in appropriate year groups or in the cupboard beside the computer suite.
- Useful websites are incorporated into lessons through the use of the Interactive Whiteboard.
- The subject leader must be informed of any changes regarding science resources i.e missing or broken resources and/or when new or replacement resources are required.

Policy dated July 2016

Policy to be reviewed July 2018

Subject Leader - Donna Hornsey

