

# Science Policy



## Philosophy and purpose

This policy reflects the school values and philosophy in relation to the teaching and learning of Science. It sets out a framework within which teaching and non-teaching staff can operate and gives guidance on planning, teaching and assessment.

The policy should be read in conjunction with the Schemes of Work for Science and the School Safety Manual which set out in detail what pupils in different Key Stage ability ranges will be taught.

Aims:

Implicit within the Science curriculum are the five outcomes of Every Child Matters

- Be safe
- Be healthy
- Enjoy and achieve
- Achieve economic wellbeing
- Make a positive contribution

The aim of Science is to provide opportunities for pupils to:

- Excite their curiosity in themselves, their immediate surroundings and the environment.
- Participate in practical activities that will satisfy their curiosity with knowledge.
- Develop awareness using their senses to explore and investigate ideas
- Develop and evaluate ideas through scientific enquiry
- Develop an understanding of cause and effect.

### Programmes of study

(Early Years KS1& 2)

Each national curriculum programme of study is differentiated to allow all our pupils to access the content in a meaningful and realistic way. Related learning objectives and differentiated activities can be found in the Equals Scheme of Work and/or QCA units and Planning, Teaching and Assessing documents available from the QCDA web site.

## **Method of delivery**

The curriculum organisation and structure is outlined in the policy document entitled 'Curriculum and School Organisation'. The procedures for planning, teaching and learning strategies, monitoring and evaluation are outlined therein.

In relation to Science however, additional considerations apply as outlined below.

## **Early Years**

Science in an Early Years setting should develop knowledge and understanding of the world through practical and meaningful activities.

## **Key Stages 1 and 2**

Science coverage in KS1 &2 will be taught in units according to year group (see Curriculum coverage diagram). Teachers should continue to use an enquiry based approach to the subject, encouraging the pupils to 'Work Scientifically'. They should ensure they deliver an appropriately motivating and differentiated curriculum for their class and cover all elements of each strand where ever possible.

After meeting with our Senior Management Team to discuss how the new curriculum suited the needs of our children, it was decided that certain elements were simply not applicable for the majority of our pupils and have therefore been removed as units from the Curriculum Coverage for Acorns School. They will however, be touched upon within other units, as an extension for the most able pupils.

## **Planning & Class Organisation**

Class teachers should plan their own units of work depending on their termly theme. They should adapt their planning to incorporate the necessary skills for learning from the NC and provide a range of contexts and learning experiences that meet the individual needs of the children in their class.

The subject, if appropriate, is also reinforced via cross curricular means. The Subject leader will consult and offer guidance to all staff through discussion, resources and planning.

## **Resources:**

Science resources are stored in the outside shed (key 14) and are stored in labelled boxes. All resources should be returned to the correct box when finished with. Advice on available resources and ICT programs available will be available from the subject co-ordinator.

**Information and Communication Technology**

Each class has a PC with a range of software designed to help develop skills in each of the programmes of study in Science

**Equal Opportunities**

Multi-cultural and gender aspects of Science are addressed wherever it is relevant  
There is regular monitoring of the language used within the classroom as well as the equipment used to teach Science

**Role of Science Co-ordinator**

- To have a good knowledge and understanding of their subject and to keep up to date with any initiatives and developments
- Support colleagues in their development of planning, assessment and recording of activities
- To lead in policy development and the production of schemes of work designed to ensure progression and continuity throughout school
- To offer advice and support to class teachers in the purchase of resources
- Monitor progression of subject throughout school, including moderation

**Assessment, recording and reporting**

The procedures for assessment, recording and reporting of pupils' progress are outlines in the policy document of the same name in relation to Science, however, the following considerations apply.

**Recording Achievement**

Achievement is recorded against learning outcomes listed in the Unit of Work. Special achievements are rewarded with a certificate; star of the week with evidence displayed on the Achievement Board.

Achievement is recorded as evidence in pupil's red Record of Achievement / Progress file which can include photos, work sheets and possibly a video clip. At the end of each Key Stage an Individual Profile including Science will be produced for each pupil showing their progression throughout the Key Stage years.

**Assessing Achievement**

Assessment against learning outcomes would be made on an individual basis to demonstrate progress. Comments are noted on examples of work against specific learning outcomes identified in short term planning. B-squared will be used to record

more formal assessment and inform termly evaluation and future planning. Pupils are assessed at the end of key stage according to statutory requirements.

## **Reporting Achievement**

Achievement will be reported on the basis of completed evaluations. The teacher responsible for the subject delivery will report achievement via the annual report to parents and compile evidence from the B-squared data. Reporting to parents is done biannually, once during the Spring term in the form of an interim report and during the Summer term. We also report to parents on an annual basis through the Annual Review.

## **Monitoring and Evaluating Science**

Monitoring and evaluating curricular strengths and weaknesses to ensure and maintain high standards in the quality of teaching and learning is a vital part of the curriculum development process. It is a process, which is the responsibility of all staff but is seen as a major facet of sound management of school and thus it is directed from a senior management level. Opportunities are made available to subject co-ordinators to allow them to work alongside colleagues in other classes within the school in order to monitor the balance and coverage of the Science strategy and to evaluate the standards of teaching and learning within the school. This in turn affects future planning and delivery of the subject.

**Date March 2015**

**Edited September 2016**

| Year Group | National Curriculum coverage                         |                           |                                     |   |
|------------|--|---------------------------|-------------------------------------|---|
| 1          | Plants   | Animals, including humans | Everyday materials                  | Seasonal changes                            |
| 2          | Living things and their habitats                     | Plants                    | Animals, including humans           | Uses of everyday materials, including rocks |
| 3          | Plants   | Animals, including humans | Forces and magnets                  | Light                                       |
| 4          | Animals, including humans                            | States of matter          | Sound                               | Electricity                                 |
| 5          | Living things and their habitats                     | Animals, including humans | Properties and changes of materials | Forces, including earth & space             |
| 6          | Animals, including humans, evolution and inheritance | Light                     | Electricity                         | Living things and their habitats            |