

## A Curriculum Policy for Science.

### 1. Introduction.

- 1.1 Science is a core subject within the national curriculum. This policy outlines the purpose, nature and management of the Science taught and learned in our school.
- 1.2 The school policy for Science reflects a consensus of opinion of all staff. It has been discussed by the full teaching staff and has the agreement of the full governing body.
- 1.3 The implementation of this policy is the responsibility of all the teaching staff.

### 2. Vision Statement

We believe that through Science children will develop an understanding of the world around them, the building blocks of life and the physical processes that occur every day. Through carefully planned practical experiences, children will develop the skills of scientific enquiry and draw conclusions about the world around them. We want our children to have a clear understanding of how science affects their life on a daily basis.

### 3. Aims and Objectives.

- 3.1 Science is a body of knowledge built up through experimental testing of ideas. Science is also methodology, a practical way of finding reliable answers to questions we may ask about the world around us. Science in our school is about developing children's ideas and ways of working that enable them to make sense of the world in which they live through investigation, as well as using and applying process skills.
- 3.2 Our aims are to teach children to understand how major ideas contribute to technological change – impacting on industry, business and medicine, improving quality of life. Children should learn to question and discuss Science-based issues that may affect their own lives, the direction of society and the future of the world.
- 3.3 To utilize the knowledge and skills of professionals within our own school and those in other local schools, through close links with the Congleton Education and Community Partnership (CECP), Teaching and Learning Forum.

### 4. Entitlement

In working to meet the "Every Child Matters" agenda, we believe that every child has an entitlement to fulfill his or her potential. In working to achieve this we will ensure the wellbeing of all children in relation to being healthy; staying safe; enjoying and achieving; making a positive contribution and achieving social and economic wellbeing.

- 4.1 Children will be taught Science according to The National Curriculum. Children in the Reception class will be taught using the curriculum guidelines for The Early Years Framework.
- 4.2 In Key Stage 1 children will be taught how to observe, carry out simple fair tests and evaluate evidence. They will learn how to share their ideas and communicate them using scientific language, drawings, charts and tables.

4.3 In Key Stage 2 children will begin to make links between ideas and to explain things using simple models and theories. They will carry out more systematic investigations, working on their own and with others. They will talk about their work and communicate ideas using a wide range of scientific language, conventional diagrams, charts and graphs.

4.4 All children have an entitlement to access the programmes of study at an appropriate level.

## 5 Implementation Procedures.

5.2 Children in reception class will follow The Early Years Framework which is learning through play and investigation. This is child led, but with adult guidance and support.

5.3 By the end of Key Stage 1 all children will visit each area of the Science Curriculum.

5.4 By the end of Key Stage 2 all children will visit each area of the Science Curriculum twice, building on knowledge learnt in previous years.

5.5 Key Stages 1 and 2 will use the planning document, produced by the CECP, as an aid to planning, adapting it to suit their own class. This will ensure progression throughout the school and will help to eliminate repetition within the different areas of the subject when topics are re-visited.

5.6 Science is used, applied and developed through activities in other areas of the curriculum where appropriate. It has been decided as a staff that science will be planned as a stand alone subject. However additional opportunities that arise to include some extra science within the skills curriculum should be taken where appropriate as there are strong links to Maths, ICT and Literacy.

5.7 The class teacher teaches science. The teacher will group the children according to the nature of the activity into individual, class or group settings. Children will undertake learning within the grounds of the school and on science trips as appropriate. Occasionally science visitors will instruct the children.

5.8 In the Reception class the children participate in a variety of adult led and child initiated activities that enable them to explore, in a hands on and active way, a variety of scientific concepts. The staff plans these experiences using the Development Matters Document for the Early Years Foundation Stage.

5.9 Every attempt will be made to integrate children with Special Needs, including the Gifted and Talented, into participating on equal terms with other children. Activities are planned and differentiated to encourage active participation by all children. More able children will be given, if appropriate, more open ended and challenging tasks to work through.

5.10 A range of activities will be provided, which will meet the needs of individuals and groups of children. Children's work can be differentiated through the nature of the task set or by the outcome/s expected.

- 5.11 Children can use a range of ICT resources, eg computers, video cameras and data logging equipment where appropriate to the science being taught. The Internet should be used as a secondary source of information. They should be given opportunities to apply and develop their ICT skills through the use of ICT tools to support their learning in all areas of the Science curriculum.
- 5.12 To increase the profile of science, a science week will be held at Mossley, giving fun opportunities for all children to engage in alternative science investigations during a themed week.

5.13 Homework is set, through the Learning Logs, where appropriate.

## 6. Health and Safety

6.1 Due to the nature of the subject, safety and supervision is of paramount importance. Children must be made aware of the Health and Safety implications of an activity before it is begun. Children will be taught to store, move, place and use equipment safely. Children must wear appropriate clothing and safety equipment, if necessary, at all times.

## 7. Role of the Curriculum Team

- 7.1 The Science curriculum team will monitor this policy in practice and give advice as requested/ required.
- 7.2 The team will also look to develop the place of Science in School, making it an integral part of school life.

## 8. Resources

8.1 The equipment is stored in the Science Cupboard, which is located in the Junior practical area. There are some "big Books" located in the big book store. The updating of these resources is an ongoing process. The CECP Planning Document will be stored in the Staff Room and planning will also be available via the Staff Share.

## 9. Assessment

- 9.1 Teacher Assessment will be made and recorded using "Mossley Science Assessment Sheets". These will follow the children through each Key Stage.
- 9.2 In Foundation Stage, the children are assessed using the Early Years Foundation Stage Development Matters Document. The children are assessed using thorough observations during adult led and child initiated activities. Children work towards achieving the Early Learning Goals, within the specific area of Learning to Understand the World. At the end of the year they are summatively assessed against the Early Learning Goals (emerging, expected and exceeding).
- 9.3 In key Stage 1 the assessment is on going and the children are assessed in the form of a quiz or practical activity at the end of a topic. There is also an element of self assessment where children are asked to complete a mind map, both at the beginning of the topic and at the end.

9.4 In key Stage 2 the assessment is on going and the children are assessed in the form of a quiz or practical activity at the end of a topic. There is also an element of self assessment where children are asked to complete a mind map, both at the beginning of the topic and at the end.

9.5 Teachers assess the Science being taught as an ongoing process, and this subsequently informs future planning and differentiation.

#### 10 Monitoring of Teaching and Learning.

10.1 The Science Curriculum team will monitor planning in all classes, to ensure full coverage of the science curriculum. The class teacher will monitor children's work and this will help inform planning on all levels, long term, medium term and lesson plans.

10.2 The Head Teacher will monitor teaching and learning through observation.

#### 11 Background documentation

11.1 This science policy was informed by reference to The National Curriculum statutory orders 2000 and the Draft Science Curriculum 2013 and Curriculum Guidelines for the Foundation Stage.