

## Attenborough School

### Values of our school that will be demonstrated in the teaching and learning of science:

Science teaches an understanding of natural phenomena. It aims to stimulate a child's curiosity in finding out why things happen in the way they do. It teaches methods of enquiry and investigation to stimulate creative thought. Children learn to ask scientific questions and begin to appreciate the way science will affect their future. (ADD IN FROM INSET TOO)

## SCIENCE POLICY

### Aims

We want the children:

- To develop scientific knowledge and understanding
- To develop scientific enquiry skills
- To ask questions about the world they live in and make simple predictions about what might happen if...
- To look carefully at the world around them and use their 5 senses to say what it is like
- To be able to use observations to sort and measure things
- To record their findings in drawings, charts, words and tables
- To explain how to make their test fair and explain why it is fair
- To say what happened and explain trends in their results
- To have an everyday working knowledge of Science so they can apply it to their everyday lives
- To make use of ICT, Literacy and Numeracy skills
- To work safely

The attitudes we want to foster are:

- Enjoyment
- Always do your best (high expectations)
- Independence and confidence
- Treat each other with respect (sharing, listening to each other, listening to the teacher)
- Cooperation and collaboration
- Curiosity and imagination
- Treat the world around them with respect (being aware that living things are alive and need care and that the place we live in is important)
- Self-motivation

### Meeting the Aims

We will:

- Provide a stimulating environment to promote effective learning in Science
- Ensure continuity and progression in Science by using planning to build on prior learning. We ensure that there are opportunities for all children of all abilities to develop their skills and knowledge in each unit and we also build progression into our science scheme of work, so that children are increasingly challenged as they move up through the school.
- Give children lots of opportunities to develop and apply investigative skills

- Provide necessary resources for the children to be taught effectively
- Provide a safe environment in which to explore Science

### **Teaching and Learning**

We use a variety of teaching and learning styles in science lessons and we share the learning objective with the pupils by stating it clearly at the beginning of each lesson. Our main aim is to develop children's scientific skills, knowledge and understanding through challenging, motivating activities that extend the pupils learning. This can be through whole class teaching, small group work, paired work or independent learning. Exploration tables/areas are set up in each classroom to encourage the children to develop enquiry skills.

### **KS1 and KS2**

We teach the national curriculum for science through the cross curricular approach using the IPC. The IPC plan identifies the science topics to be taught each term to each year group and identifies the science objectives for that unit. Where objectives are missed out in the IPC then teachers should add these into fortnightly Science lessons. Science skills are taught continually and are identified in teachers' short term planning.

### **Foundation Stage**

We teach science through Knowledge of the World (Foundation Stage Curriculum). The emphasis is on practical sessions, exploring the outdoor environment as well as what can be taught in the classroom.

The planning is monitored by the Science subject leader to ensure curriculum coverage and an emphasis on practical exploration and investigation.

### **Differentiation**

We differentiate by:

- Dialogue
- Giving extra time to some groups
- Setting up one task that has a variety of levels associated with it
- Asking different level questions to match ability
- Giving different tasks to different groups
- Varying the level of adult support given to groups

### **Assessment**

We assess by:

- Talking to the pupils and asking questions
- Discussing the work with the pupil
- Looking at the work and marking against the learning objective
- Observing the pupils carrying out practical tasks
- Pupils self evaluation of their work
- Use of learning ladders (TBC)
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### **Equal Opportunities**

We are committed to equal opportunities for all. We will ensure access to the Science curriculum by providing learning opportunities for every child regardless of their ability level, gender, race and cultural background.

### **Health and Safety**

Please refer to the school's Health and Safety policy

### **Resources**

Resources are stored in a central area. The library contains a good supply of science topic books and computer software and Ipads to support children's individual research.

### **Role of the Subject Leader**

Please refer to Policy for the Role of the Subject Leader

### **Success Criteria**

- Teachers' planning is in line with Curriculum Framework
- Planning highlights specific scientific skills to be taught as well as the knowledge
- Children are given the opportunities to carry out investigations
- Children's books shows a variety of work, recorded in a range of ways
- Work is marked with reference to the learning objective
- Pupil achievement in Science is at least in line with National Average (end KS1 and end KS2)

### **Monitoring and Review**

It is the responsibility of the science subject leader to monitor the standards of children's work and the quality of teaching in science. The science subject leader is also responsible for supporting colleagues in the teaching of science, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school.

### **Reviewed June 2016**

**Date of Next Review: June 2017**

**Agreed by the Head Teacher**

Date .....

Signed ..... (Head Teacher)