

# Leamington CP School



## Science Policy

March 2019

# **Leamington CP School - Science Policy**

## **Mission Statement**

We at Leamington Community Primary School will work to provide a happy, secure and stimulating environment in which every child is valued and encouraged to achieve their full potential through the development of a love of learning and a desire to expand their knowledge.

From a very early age, children are curious about the world they live in. They instinctively explore and interact in their physical environment. Children are constantly developing new ideas, observing their effects and naturally testing them. Children's concepts are therefore initially based upon first hand exploration. Primary Science is concerned with the development of process skills and concepts that draw upon these natural interests and abilities. Pupils should be given opportunities to observe, investigate, experiment, discover and communicate their ideas in a variety of ways enabling them to learn about the way things are and why they behave as they do. It is essential that Primary Science provides the foundations of skills, attitudes, knowledge and understanding that will enable them to understand the world around them.

## **Aims**

At Leamington C.P. School, when teaching Science it is intended that pupils will:

- develop knowledge and understanding of important scientific ideas, processes and skills and relate these to every day experiences.
- develop different ways of thinking, finding out about and communicating scientific ideas and information.
- learn to predict, observe, record and analyse appropriately and accurately, the results of practical tasks.
- be able to design and conduct fair tests.
- develop the ability to use scientific apparatus safely and effectively.
- develop interest and enthusiasm for Science.
- develop caring attitudes in relation to human beings, other living creatures, the environment and materials that they handle.
- explore a range of scientific enquiries such as; fair/comparative testing, observation over time, pattern seeking, research using secondary sources and classifying and grouping

## **Responsibilities**

- Head teacher - to lead, manage and monitor the implementation of the Scheme of Work, including monitoring teaching plans and the quality of teaching in classrooms.
- Governing Body - the Science governor will keep the Governing Body informed about the progress of the Scheme of Work.
- Science Co-ordinator - See 'Role of the subject leader'

## **Equal Opportunities**

This school is committed to working towards equality of opportunity in all aspects of school life. All resources used will support this commitment.

As mentioned in the Disability Equality Scheme, all reasonable adjustments will be made to allow all stakeholders to have access to the full curriculum regardless of any disability. Any child with a disability will be targeted, tracked and planned for to ensure they have full access to the curriculum, and that good progress is made.

### **Gifted and Talented**

Any children who are achieving significantly higher levels of performance than average for their year group in Science will be identified as gifted/talented. Class teachers (with support of the subject and Gifted and talented coordinator) will ensure that appropriate tasks are planned to challenge and stretch all children. These children will be tracked throughout their time at Leamington to ensure they reach their full potential.

### **Differentiation**

Science will be taught in mixed ability classes up to Year 6. Teachers will differentiate the weekly Science lesson when necessary so that all children are challenged and motivated by the work given, appropriate to his or her needs.

### **Early Years**

We support children in developing their knowledge, skills and understanding in order to help them make sense of the world in which they live. We support their learning by offering opportunities for the children to use a range of tools safely; encounter creatures, people, plants and objects in their natural environments and in real life situations. We encourage our children to become active learners, undertaking practical "experiments" and working with a range of materials. The children are involved in making decisions about what to investigate and how to do it. We aim to create a stimulating environment offering a range of activities which encourage the children's interest and curiosity inside and out. We plan activities based on first hand experiences that encourage exploration, experimentation, observation, problem solving, predication, critical thinking, decision making and discussion. We always teach skills and knowledge in the context of practical activities. We encourage the children to share their knowledge, telling the others what they have found out describing their environments. All teaching and learning occurs through fun, play based activities which build on the children's prior knowledge. Children are observed, assessed and tracked in line with Development matters and at the end of the Foundation Stage the Foundation Stage Profile is completed for every child.

### **Cross Curricular Themes**

Science contributes and compliments many subjects within the National Curriculum and opportunities will be sought by teachers to draw scientific experience out of a wide range of activities. These links between subject areas are beneficial in that they enable pupils to understand and derive greater enjoyment out of what they are studying. They will allow the children to begin to use and apply scientific skills and knowledge in real contexts.

### **ICT**

ICT will be used in various ways to support teaching and learning in Science wherever possible. Children will be given the opportunity to use ICT as a means of handling data, presenting information generated by scientific investigations and carrying out individual research. Use of appropriate ICT resources, including PCs and appropriate software, Smart board, data logging sensors, the Internet and digital microscope, are used to support and enhance the learning of scientific concepts as detailed in teachers' medium term plans for Science.

### **Assessment and Record Keeping**

Children's work will be marked according to the agreed school marking policy.

Assessment will take place at three levels – short-term, medium-term and long-term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment.

- Short-term assessments will be an informal part of every lesson to check the children's understanding and to give the teacher information for future planning.
- Medium-term assessments take place at the start and end of every unit of work to check progression and achievement of knowledge, skills and understanding. Children will take a pre- and post- assessment at the start and end of each topic. The outcomes will be recorded on a class record sheet. Assessments will be kept in Progress folders in class and passed on to the next teacher at the end of the year.
- Long-term assessments will take place towards the end of the year. Teachers will draw upon their end of unit assessments and supplementary notes about their class, to give an overall level based on the 'best fit' relating to the National Curriculum levels.

Assessment is carried out at the end of each Key Stage with the Key Stage 2 assessment being in the form of a formal written test, the results of which are reported to parents and published. Staff hold regular parents meetings and written annual reports are forwarded to parents in the summer term.

### **Monitoring and Evaluation**

The implementation of the Scheme of Work will be monitored through observation of the quality of teaching in classrooms, teachers' planning and evaluations and pupils' work. Monitoring will take place termly. Feedback will be given to staff and the Head teacher.

### **Resources**

Science equipment, ICT resources and teacher's books to be used across each Key Stage are stored centrally in each resource room and will be returned there when not in use. Teacher/pupil scheme of work books are stored within classrooms and shared between classes within a year group. Resources have been sorted in to unit boxes, which contain all relevant/appropriate resources available for that topic. Resources that are used in many units are labelled and stored centrally in each room. Children's reference books relevant to each topic are kept in the Science section of the libraries. Access to the rooms is available to all staff to draw upon whenever it is needed. Breakages, deficiencies of resources and replacement of expendable items need to be reported to the subject leader who is responsible for requisitioning.

### **Health and Safety**

In their planning of activities, teachers will anticipate likely safety issues. They will also explain the reasons for safety measures and discuss any implications with the children. Children should always be encouraged to consider safety for themselves, others, the environment and the resources they use, when undertaking scientific activities. The LA recommends that schools follow the advice and practices in the A.S.E. booklet "Be Safe!" which can be found with the Science resources.

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

- To be enthusiastic about Science and demonstrate good practice.
- To take the lead in policy development and the production of a Scheme of Work designed to ensure progression and continuity in Science.
- To monitor and evaluate the implementation of the Scheme of Work, including monitoring teaching plans and the quality of teaching in classrooms.

- To co-ordinate and monitor assessment procedures and record keeping, so as to facilitate progress and development throughout the school.
- To take responsibility for the purchase, organisation and review of all Science based resources, ensuring that they are readily available and well maintained.
- To support, advise and guide staff by encouraging the sharing of ideas and organising 'In Service' training as appropriate.
- To keep up to date with developments in Science education through reading relevant materials, attending courses and disseminating information to colleagues as appropriate.