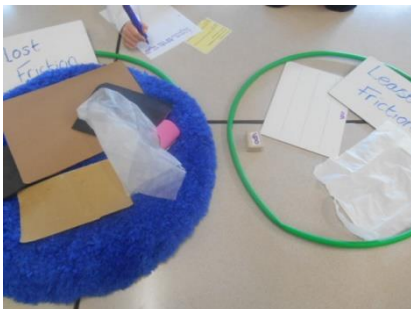




Leamington Community Primary School

Together we make a Difference

Science Policy



Leamington CP School - Science Policy

Mission Statement

At Leamington Community Primary School, we 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. The Developing Experts scheme will be used by teachers to further enhance the Science curriculum. Teachers will follow the scheme and adapt lessons to suit the needs of their class. It is essential that Primary Science provides the foundations of skills, attitudes, knowledge and understanding that will enable our children 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 Science curriculum across the school, including monitoring teaching plans and the quality of teaching in classrooms.
- Curriculum Lead - the curriculum lead will keep the Governing Body informed about the progress of the Developing Experts scheme and the Science curriculum.
- Science Co-ordinator - See 'Role of the subject leader'
- Class teacher - to plan, teach and assess Science on a weekly basis.

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.

Greater Depth

Any children who are achieving significantly higher levels of performance than average for their year group in Science will be identified as Greater depth. Class teachers (with support of the Science coordinator) will ensure that appropriate tasks are planned to challenge and stretch all children.

Adaption

Science will be taught in mixed ability classes up to Year 6. Teachers will adapt science lessons where necessary, so that all children's needs are met and appropriate adaptations are made to ensure all learners achieve success and are challenged and motivated.

Early Years

We support children in developing their knowledge, skills and understanding of Science 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 outdoors. 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 and findings with peers. 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. Where appropriate, Science lessons may link to the narrative book for each half term.

Computing

Computing will be used in various ways to support teaching and learning in Science wherever possible. Children will be given the opportunity to use technology as a means of handling data, presenting information generated by scientific investigations and carrying out individual research. Use of appropriate technology, including computers, ipads 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

Children will use both Science Jotters and Science books to record their work. Practical activities will be uploaded onto Seesaw. 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-assessment task at the start of each topic. At the end of each topic, children will complete an 'End of Unit' Quiz and a Reflection task, to demonstrate their knowledge and skills of the topic.
- 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.

Monitoring and Evaluation

The subject leader will monitor Science across the school and the quality of teaching in classrooms, teachers' planning and pupils' work. Feedback will be given to staff, the Head teacher and the Governors.

Resources

Science equipment, computing resources and scientific books to be used across each Key Stage. These 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 ensure it is up to date.
- To monitor and evaluate the use of Developing Experts, 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 provide staff with resources to support Scientific Vocabulary across the school.
- To keep up to date with developments in Science education through reading relevant materials, attending courses and disseminating information to colleagues as appropriate.