

Science Policy

Intent:

Our fundamental aim is to enable all children to develop fully and achieve their full potential as independent learners with a positive self-image, through meaningful and memorable experiences.

- To develop a positive attitude towards science, enabling children to see it as a lively, fascinating and enjoyable experience.
- To stimulate a natural curiosity to explore and investigate the world around them.
- Develop skills and processes of scientific enquiry through exploration and investigation.
- To deliver the Science Programmes of Study of the National Curriculum.
- Develop creativity, imagination and sensitivity.
- To develop a set of attitudes which will promote a scientific way of thinking including; open mindedness, resilience and objectivity.
- To enable children to become successful communicators of scientific ideas, by developing skills and techniques involved in obtaining, presenting and responding to information.
- To deliver practical activities where children can explore and experience phenomena, helping them to answer scientific questions about the world around them.
- To develop the natural curiosity of the child, encourage respect for living organisms and the physical environment.

Implementation:

- Planning for science is developed from the National Curriculum skills for Science.
- Schemes of Work may be used to generate ideas and as a starting point to pitch lessons.
- Differentiation of activities will be made in the weekly planning as appropriate to the pupils being taught based upon their prior knowledge, understanding and skills.
- The children will have access to key language and meanings in order to understand and readily apply to their written, mathematical and verbal communication of their skills.
- The assessment of knowledge and skills will be planned for as part of the teaching process. (See assessment policy). Summative assessment will take place at the end of each term, based on Teacher Assessment.
- Science will usually be taught by the class teacher. Timetable changes will be made if PPA time is allocated during science lessons for a prolonged period.

- A wide range of teaching and learning strategies will be used, with an emphasis on investigative, where possible to develop knowledge and understanding.
- Pupils will be taught to use a wide range of appropriate recording methods, which will include the use of Information Communication Technology at both Key Stage 1 and Key Stage 2.
- Displays of science work will be used to emphasise and raise the importance of science in the school. Key vocabulary linked to the topics to be displayed in the classrooms for pupils to refer to. Where possible, interactive displays will be planned for other pupils to explore.
- Equal opportunities in science will be given to all pupils.
- Resources are audited by the Science Subject Leader to support practical enquiry.

Science Subject Leader

The role of the Science Subject Leader is to:

- be responsible for the development of science in school.
- monitor the effectiveness of science in school.
- support teachers in their planning and strategies for classroom management.
- disseminate new information.
- provide or organise staff training.
- be responsible for providing appropriate science resources
- liaise with the secondary school regarding continuity.

Lesson Organisation

Reception classes and nursery will have a science based focus activity each week. In KS1 science is taught 1.5 hours a week and in KS2 science is taught 2 hours a week.

Teachers will create weekly plans based on the objectives of the National Curriculum. These plans will be annotated.

Teachers will have a focus group/ child each lesson.

Teaching assistants will work with different focus groups, as planned for by the Class Teacher.

There will be a balance of working scientifically and knowledge and understanding.

Assessment

Teachers make an assessment of the lesson on weekly planning. Teachers assess each learning journey through the evidence in children's books and through the learning demonstrated during lessons.

Assessment data is regularly analysed by LMT and the Science Subject Leader.

Science in the Ranelagh Curriculum

Teachers make links to science where possible across the creative curriculum.

Monitoring

Plans and books are monitored every half term and pupil conferences are held to promote pupil voice.

Scientific language

Scientific language should be displayed during lessons and referred to and taught. Children should be modelled how to communicate their ideas scientifically using speaking frames.

SEN

Children with special educational needs are included and planned for by the class teacher. Pupil's learning should be evidenced through photographs and pupil recordings. Support is available from the inclusion manager.

Greater Depth

Pupils working at greater depth should be challenged to apply their learning to everyday life and explain their ideas in depth using scientific vocabulary. Pupils are encouraged to generate their own line of enquiry. Lessons are adapted accordingly to meet their needs.

Marking

Marking is diagnostic and provides children with a next step to develop skills and concepts. See marking policy for more detail

Homework

Science is included in homework activities under Ranelagh Curriculum, see Homework policy.

Science Recording

Children should record their science work once a week, to a high standard of presentation and should record in a variety of ways.

These could include;

Diagrams, charts, tables, graphs, prose, symbols, models, drawings, photographs explanations of ideas and concept cartoons.

Children should record their work:-

- To clarify their own thinking and aid their understanding of scientific thinking.
- To keep as a record for revision and assessment and to reflect on their achievement.

Health and Safety

Risk assessment to be carried out where necessary:

When carrying out an investigation which requires safety and health to be taken into account, a risk assessment regarding this area should be completed and authorised by the health and safety manager of the school.

E.g.: candles, lighters, cooker, electric kettle, sharp instruments...

Children should be shown how to use equipment safely and correctly. The teacher is responsible for the children in his/her classroom and therefore must have an awareness of safety regulations which apply to the resources being used. Potentially dangerous activities must be directly supervised by the teacher.

Parents

The Science curriculum is available on the school website and termly curriculum newsletters are shared with more information about the topics covered during the term.

If parents have any queries about their child's Science curriculum they should make an appointment to see the Science Leader. Parents will receive information about their child's progress through end of year reports and by speaking to the class teachers at parents' evenings.