

## Science Policy



This policy is intended to be read by teachers, teaching assistants, parents, governors, inspectors, support staff and staff from other schools with which we may have links.

Date Approved: 9<sup>th</sup> March 2018

Date of Review: Triennially, Spring 2021

### **Introduction**

In accordance with the Education Reform Act 1988, and subsequent Education Acts, school must provide science as part of the National Curriculum for all registered pupils. This policy outlines the teaching, organisation and management of the science taught and learnt at St. Luke's C of E Primary School. It reflects the school's values and ethos. The policy has been drawn up after staff consultation and has the full agreement of the governing body. The implementation of the policy is the responsibility of all the teaching staff.

### **Our vision**

To create a caring Christian community in which all individuals feel valued, supported and respected, and where potential is recognised and developed.

### **Rationale**

All school policies form a public and accountable statement of intent. This policy is intended to create an agreed whole-school approach of which staff, children, parents, governors and other agencies have a clear understanding. It reflects the essential part that science plays in the education of our children. It is important that a positive attitude towards science is encouraged among all children and staff in order to foster self-confidence and a sense of achievement. The policy also explains how we, as a school, meet our legal requirements in this subject area.

### **Philosophy**

Science is a valued part of the curriculum at St. Luke's Primary School, as it provides a means of exploring and understanding the world around us. It stimulates the questioning nature of children and develops their ability to work methodically and systematically to observe and record. We encourage children to learn through experience and therefore we value investigative work as the key to the science curriculum.

Policy Implemented: 2005

Reviewed and changed to reflect the new curriculum – September 2014

## **Aims**

### **Our whole-school aims:**

- To aim for excellence in learning, teaching and personal achievement and to help each member of the St Luke's community reach their full potential.
- To provide a safe and stimulating environment which will enrich and broaden each child's knowledge, experience and creativity, thereby enabling them to have enquiring minds and become lifelong learners.
- To develop a child's growing respect for themselves and others, irrespective of race, age, gender, faith or ability.
- To build positive partnerships between school, home and the wider community.

### **Science Curriculum Aims**

We aim to:

- Encourage an investigative approach towards science.
- Provide a child centred approach to science where we build on a child's existing skills, concepts and interests.
- Encourage children to view science as exciting and stimulating.
- Teach science through first hand practical scientific activities wherever possible.
- Provide appropriate learning experiences from which children can acquire scientific knowledge and understanding.
- Ensure continuity and progression in terms of planning, teaching, record keeping and assessment.
- Support practical science activities with the provision of appropriate resources and reference materials.
- Ensure that science provision is undertaken with a strong commitment to equal opportunities.
- Ensure that all scientific activities are carried out with due regard to health and safety guidelines.
- Ensure the needs of all children are met through careful consideration of extension and reinforcement activities.
- We aim to develop independent and cooperative ways of working, encouraging children to explore ideas and activities in a variety of group settings.
- We are continually aiming to raise standards of achievement of the pupils of St. Luke's School.

### **Science Curriculum Objectives**

- Science will be taught throughout the school providing full access to the National Curriculum for Science.

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- Pupils and staff will be encouraged to use science resources whenever appropriate in order to develop their work.
- Pupil of all abilities will be given the opportunity to use and develop their science skills, knowledge and understanding in contexts appropriate to their current needs and level of experience.
- Children will be given the opportunity to explore and investigate the world in which they live.
- Activities will be provided which encourage children to plan and carry out their own investigations where they are able to ask questions, predict and hypothesise; observe, measure and manipulate variables, interpret their results and evaluate scientific evidence.

### Implementation

The science subject leader is responsible for:

- Managing the assigned budget.
- Monitoring the delivery of science in the classroom.
- Auditing the science resources available.
- Organising appropriate INSET and associated training materials.
- Ensuring assessment is carried out and advising on activities to assist this.
- Updating the science policy.
- Maintaining a curriculum portfolio.

Class teachers are responsible for:

- developing and updating their own skills, knowledge and understanding of the relevant science topics in their year groups / key stages
- ensuring progression in pupils' acquisition of science skills with regard to the 2014 National Curriculum.
- identifying inset needs in science and taking advantage of training opportunities.
- keeping appropriate on-going records.
- planning effectively, using a cross curricular approach where possible, liaising with coordinator where necessary.
- identifying what resources are needed for their planned work and liaising with the coordinator to purchase what is necessary (within the confines of the school budget).

### Planning

Science units will be planned within a topic based curriculum, using National Curriculum objectives supported by Target Tracker.

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## Key Stage 1

Key stage 1 follow a 2 year rolling programme.

## Key Stage 2

Key stage 2 is split into lower (years 3 and 4) and upper (years 5 and 6). Each follow a 2 year rolling programme.

The school follows a two-year rolling programme of topic titles. From these titles, skills-based, medium-term objectives are derived within triplet groups. Teaching is frequently cross-curricular.

Planning is also discussed at staff meetings in order to ensure coverage in line with the requirements on the National Curriculum. .

## Assessment and Recording

- Children's attainment is assessed in individual lessons, whether the children's work is written or takes some alternative form. This formative assessment informs the direction in which learning is taken forward in the next lesson's planning and teaching. Collectively, assessment made during lessons leads to an overall assessment at the end of each unit.
- Assessment will be in accordance with the schools assessment policy which is followed throughout the school. The assessment of pupils work can provide information for pupils, teachers and parents:
  - 1) to enable pupils to reflect upon and celebrate achievement;
  - 2) to help plan for progression, continuity and target setting for pupils, and to inform planning for future work of whole classes and individual pupils.
  - 3) to communicate achievement and identify areas for further development to pupils, parents and teachers.
  - 4) to evaluate the effectiveness of teaching and learning.
- Assessment is an integral part of teaching and learning and based upon teachers' judgements of pupil attainment and progress. Assessment is built in to the planning of learning experiences and clearly related to the learning outcomes that are proposed. Assessment activities should be wide ranging and matched to the pupils' ability i.e. differentiated by task or by outcome, through appropriate support and resource provision.

## Resources

The science resources are stored centrally in the DT area. The resources are organised in labelled topic boxes. The subject leader is responsible for maintaining, auditing and purchasing Science resources but all staff are responsible for returning resources to the Science area, immediately after use.

## Health and Safety

The school and teachers are aware of the need for safety in all science activities. Staff follow the guidelines set out in the Essex Code of Practice. The science subject leader will inform staff of any new information/guidelines.

## **Inclusion and Equal Opportunities**

Every child has an entitlement to a broad, balanced, meaningful and relevant music curriculum. We recognise that each child is unique in terms of characteristics, interests, abilities, motivation and learning needs. At St Luke's we recognise children's different learning styles and preferences and aim to provide learning contexts for visual, auditory and kinaesthetic learners. Those children with exceptional learning needs will have equal access to high-quality and appropriate music education.

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multicultural aspects of music. All children have equal access to the curriculum regardless of their gender, race, cultural background or disability. This is monitored by analysing pupil performance throughout the school to ensure that there is no disparity between groups.

## **Strategies for Implementation**

### **Aspects of Teaching and Learning**

Time-tabling and planning should ensure that:

- Sufficient time is allocated to deliver the curriculum through regular class lessons in science either as a subject in its own right, or as a curriculum driver for broader topic work.
- Outside visitors, trips and curriculum weeks may be used to enthuse pupils and stimulate their interest.
- The local area, including on-site resources such as the pond, will be fully utilised. This may also link to work in other curriculum areas, such as Geography.

### **Monitoring and Reviewing**

The subject leader uses the two year rolling programmes and engages in informal discussion with staff to ensure that the best use is made of resources and funds.

Samples of work and copies of medium-term plans are collected and kept in a file.

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Photographs of special events and visits also provide a rich source of evidence of teaching and learning.

### **Links with other school policies**

The science policy incorporates the aims of the following policies:

Equal Opportunities

Special Needs

Health and Safety

Teaching and Learning

Most Able