



CROSBY-ON-EDEN SCHOOL

“Enjoying achieving; achieving enjoyment”

SCIENCE POLICY (INC. SEX & RELATIONSHIPS)

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Review schedule	Biennial
Review responsibility	Learning & Teaching
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Crosby on Eden CE Primary School

Science Policy

The importance of science in the curriculum

Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. It also satisfies their curiosity with knowledge. Because science links direct practical experience with ideas, it can engage learners at many levels. Scientific method is about developing and evaluating explanations through experimental evidence and modelling. This is a spur to critical and creative thought. Through science, pupils understand how major scientific ideas contribute to technological change – impacting on industry, business and medicine and improving the quality of life. Pupils recognise the cultural significance of science and trace its world-wide development. They learn to question and discuss science-based issues that may affect their own lives, the direction of society and the future of the world.

Aims:

The school aims to:

- stimulate and excite pupils' curiosity about changes and events in the world;
- satisfy this curiosity with knowledge;
- engage pupils as learners at many levels through linking ideas with practical experience;
- help pupils to learn to question and discuss scientific issues that may affect their own lives;
- help pupils develop, model and evaluate explanations through scientific methods of collecting evidence using critical and creative thought;
- show pupils how major scientific ideas contribute to technological change and how this impacts on improving the quality of our everyday lives;
- help pupils recognise the cultural significance of science and trace its development.

Strategy for implementation

Science is a subject within the New National Curriculum and pupils undertake science activity throughout the term; whether as a block project or a weekly ongoing theme. The work covered in Key Stage 1 builds on the EYFS, Early Years Outcomes for pupils aged under five. Pupils in Reception develop their knowledge, understanding and skills through play activities and direct teaching from which the pupils undertake planned tasks.

Science is allocated ten per cent of the taught time at both key stages and this amounts to about 80 hours per year at Key Stage 1 and about 90 hours per year at Key Stage 2.

We plan an exciting curriculum in Science based on design and creative thinking. Allowing an open ended approach to Science investigations which means children can follow their own lines of enquiry.

Planning takes into account that the school places a high emphasis on the development of pupils' skills of scientific enquiry. In the substantial majority of lessons the skills for Sc1 are taught alongside the knowledge and understanding in life processes and living things, materials and their properties

and physical processes. In this way there is an equivalent emphasis on enquiry as there is on the knowledge and understanding together.

EYFS

Pupils are observed using the development matters statements to help them find out about living things, materials and physical phenomena. They use first hand experiences to help them make sense of scientific ideas. Science makes a significant contribution to the objective in the ELGs of developing a child's Understanding of the World– The World, e.g. through investigating what floats and what sinks when placed in water. This is child-led and often planned with the children

At Key Stage 1

At Key Stage 1 pupils observe, explore and ask questions about living things, materials and physical phenomena. They begin to work together to collect evidence to help them answer questions and to link this to simple scientific ideas. They begin to evaluate evidence and consider whether tests or comparisons are fair. They use reference materials to find out more about scientific ideas. They use creative skills to make models or test their ideas and show their understanding.

At Key Stage 2

At Key Stage 2 pupils learn about a wider range of living things, materials and physical phenomena. They make links between ideas and explain things using simple models and theories. They apply their knowledge and understanding of scientific ideas to familiar phenomena, everyday things and their personal health. They think about the effects of scientific and technological developments on the environment and in other contexts. They carry out more systematic investigations, working on their own and with others. They use a range of reference sources in their work. They talk about their work and its significance, using a wide range of scientific language, conventional diagrams, charts, graphs and ICT to communicate their ideas.

Teaching and learning

All lessons have clear learning objectives which are shared and reviewed with the pupils effectively.

A variety of strategies, including questioning, discussion, concept mapping and marking, are used to assess progress. The information is used to identify what is taught next.

Activities inspire the pupils to experiment and investigate the world around them and to help them raise their own questions such as "Why...?", "How...?" and "What happens if...?".

Activities develop the skills of enquiry, observation, locating sources of information, selecting appropriate equipment and using it safely, measuring and checking results, making comparisons and communicating results and findings.

Lessons make effective links with other curriculum areas and subjects, especially literacy, numeracy and ICT.

Activities are challenging, motivating and extend pupils' learning.

Pupils have frequent opportunities to develop their skills in, and take responsibility for, planning investigative work, selecting relevant resources, making decisions about sources of information, carrying out activities safely and deciding on the best form of communicating their findings.

Assessment and recording

Teachers' assessment is based upon the new national curriculum. The children are assessed on the basis of achieving criteria based on the Target Tracker statements which groups the children into emerging, expected and exceeding. The children may be asked to take an end of unit test at the end of each unit of work, this material is gathered from the Rising Stars. The majority of the assessment will be by teacher assessment.

Continuity and progression

The school ensures curriculum continuity by following the two-year rolling programme of science units of work and by close liaison between staff at the planning stages. Cross-curricular activities are planned whenever possible to make the learning more meaningful for all pupils. Many science units are also covered and enhanced during forest school and outdoor activities.

Inclusion

Planning at all levels ensures that the interests of boys and girls are taken into account. At Key Stage 1 the pupils are grouped in mixed ability and gender groups for all activities. In Key Stage 2 pupils may be grouped by ability.

The pupils work individually, in pairs, as part of a small group and as a whole class each term. They use a variety of means for communicating and recording their work.

Educational support staff, when available, work as directed by the teacher.

All pupils, including those with special educational needs, undertake the full range of activities. Teacher assessment determines the depth to which individuals and groups go during each unit of work.

Curriculum

Long term planning: The Programmes of Study are covered in a two year rolling programme of topics covering all of the pos. Key Stage 1 are covered once across Years 1 and 2, Key Stage 2 Pos are covered across Years 3 and 4 and Years 5 and 6.

Medium term planning: This identifies within each unit or work; learning objectives, science activities, assessment opportunities, the vocabulary to be taught and used, safety issues, how information and communications technology and resources should be used.

Learning Resources

Learning resources are kept in the science cupboard, located in the central corridor. Relevant equipment is taken to the class by teachers or responsible pupils.

The scheme of work covers training the pupils in the safe and considerate use of animals, plants and equipment. They should be taught not to be careless and to use consumables efficiently.

Older pupils may be taught how to locate and replace resources properly. Teachers should make sensible decisions, based on the age and stage of pupils, in relation to whether the teacher, the pupils under the guidance of an adult, or the pupils independently, should collect and replace resources. Teachers are to make a note of when consumables have been used and if any need to be replaced.

A number of DVDs, videos and CD-ROMs relating to various science topics are located in classrooms.

The Learning Environment

Classrooms will have displays of current science. Resources for the unit of work being covered should be appropriately accessible. Other sources of information should be available.

Teachers at both key stages should maintain a science interest display, which encourages the pupils to be curious about the world in which they live. At Key Stage 1 this might involve something to look at carefully using a hand lens. At Key Stage 2 this might involve a recent newspaper article about a scientific discovery, which builds on, or contradicts the work of a famous scientist in history or could be an interest table i.e force – selection of toys which require various forces to be applied in order to work.

All classrooms should display prominently the relevant scientific vocabulary being introduced in current units of work

Safe Practice

Safe practice as indicated in The Association of Science Education publication, "Be Safe!" must be promoted at all times. Teachers must also take into account the school's Health and Safety policy. Particular attention must be given to avoiding the use of anything that aggravates individual pupils' allergies. Safety issues have been identified in medium-term planning and risk assessments must be completed in weekly planning, when activities are identified that are unusual and beyond the scope of normal safety practice.

The contribution of science to other aspects of the curriculum

Literacy

In particular, at Key Stage 1, the pupils are encouraged to use their speaking and listening skills to describe what they see and explain what they are going to do next. At Key Stage 2 the pupils are encouraged to develop their skills of writing to record their planning, what they observe and what they found out. In relation to science, they should be applying their literacy skills at levels similar to those which they are using in their English work. Experiments will be carried out during Science lessons with any written explanations or report writing carried out during literacy or Big Writing

Numeracy

At both key stages the pupils are expected to use their knowledge and understanding of measurement and data handling at appropriate levels. In science, they should be applying their numeracy skills at levels similar to those which they are using in their mathematics' lessons.

Computing

The pupils' computing skills are applied as identified in the medium-term planning. At both key stages this involves the pupils using ICT to: locate and research information (CD ROM, internet); record findings (using text, data and tables); log changes to the environment over time (sensing equipment); gain confidence in using calculators, VCR, video cameras, digital cameras, and tape-recorder, as well as the computers and tablets.

Personal, social and health education

Health education is taught as part of the units on ourselves, health and growing, teeth and eating, moving and growing, keeping healthy and life cycles. SRE materials are available on the network and all classes are to follow these plans by Autumn 2018.

Sex and Relationships Education

Values Statement

Crosby on Eden CE Primary School is proud of its Christian ethos and values. Our pupils are proud to be responsible, thoughtful and motivated people who strive to do their best.

As a Church of England school, the leadership, its teaching and the experiences it offers, will be underpinned and rooted in our Christian values.

Purpose

The purpose of Sex and Relationships Education is to assist young people to prepare for adult life by supporting them through their physical, emotional and moral development, and helping them to understand themselves, respect others and form and sustain healthy relationships. SRE is an integral part of the curriculum in that it involves consideration of different types of relationships at different levels. In the Foundation Stage and Key Stage 1, the focus is on relationships in families and with friends. As children go through the school, they begin to consider other relationships. It is only during Year 6 that sexual relationships are considered. As a church school we teach relationships through our Christian values in the context of love and respect for others.

Statutory requirements

The National Curriculum for Science specifies aspects of SRE that must be taught; it requires that pupils should be taught about reproduction and the human life cycle.

The 1993 Education Act requires governors of all county and maintained schools to consider the provision of sex education and to ensure that the school has a sex and relationship education policy. The Act gives parents the right to withdraw their children from all, or part, of sex and relationship education, which is not part of the National Curriculum.

The Education Regulations 1993 require all maintained schools to publish a summary of the content and organisation of any sex and relationship education which they provide. Our SRE Policy is available on our school website.

The 1988 Education Act requires school to:

Promote the spiritual, moral, social, cultural and physical development of pupils

Prepare pupils for the opportunities, responsibilities and experiences of adult life.

Provision

By the end of Key Stage 1, pupils will be able to:

- recognise and compare the main external parts of the bodies of humans
- recognise similarities and differences between themselves and others and treat others with sensitivity
- identify and share their feelings with others

- recognise safe and unsafe situations
- identify and be able to talk to someone they trust
- be aware that their feelings and actions have an impact on others
- make a friend, talk with them and share feelings
- use simple rules for dealing with strangers and for resisting pressure when they feel uncomfortable or at risk.

Pupils will have considered:

- Why families are special
- The similarities and difference between people
- How their feelings and actions have an impact on others
- By the end of KS2 pupils will be able to
- Express opinions, for example, about relationships and bullying
- listen to, and support others
- be self-confident in a wide range of new situations, such as seeking new friends
- form opinions that they can articulate to a variety of audiences
- recognise their own worth and identify positive things about themselves
- balance the stresses of life in order to promote both their own mental health and well-being and that of others
- see things from other people's viewpoints, for example their parents and their carers
- discuss moral questions
- listen to, support their friends and manage friendship problems
- recognise and challenge stereotypes, for example in relation to gender
- recognise the pressure of unwanted physical contact, and know ways of resisting and reporting it.

Pupils will know, understand and have considered:

- that the life processes common to humans and other animals include growth and reproduction
- about the main stages of the human life cycle*
- about the physical changes that take place at puberty, why they happen and how to manage them
- the many relationships in which they are all involved
- where individual families and groups can find help
- how the media impact on forming attitudes
- about keeping themselves safe when involved with risky activities
- that their actions have consequences and be able to anticipate the results of them
- about different forms of bullying people and the feelings of both bullies and victim
- why being different can provoke bullying and know why this is unacceptable
- about, and accept, a wide range of different family arrangements, for example second marriages, fostering, extended families and three or more generations living together
- the diversity of lifestyles
- when it is appropriate to take risk and when to say no and seek help
- the diversity of values and customs in the school and in the community
- the need for trust and love in established relationships

Menstruation will be discussed in the separate all girls session. Cross-circular links will be made to Science and PHSE (Personal, Social and Health Education).

Roles and Responsibilities

The PHSE Coordinator, Miss Weston, is the curriculum lead and therefore is responsible for all aspects of PHSE including SRE. In respect of SRE responsibilities are to;

- Ensure that all staff are confident in the skills to teach and discuss SRE issues
- Monitor and advise on organisation, planning and resource issues across the school
- Review / update the policy on a three year cycle or sooner if necessary
- Keep the governing body fully informed of issues and progress in SRE
- Act upon any concerns, which may arise from pupil disclosure during SRE sessions.

The Governing Body

The Governing body, in co-operation with the Headteacher, determines / agrees the school's general policy and approach to SRE provision for all pupils.

The teacher

Teaching children about SRE is a whole school, on-going process and all teachers are sensitive to each individual pupil's needs. Teachers promote positive, healthy choices and relationships on a daily basis e.g. in assemblies and through implementing our behaviour policy.

It is the responsibility of all staff to teach SRE in line with the principles and statements set out in this policy, and in particular, to:

To establish with pupils a set of ground rules which set the parameters for discussion

Promote the spiritual, moral, cultural, mental and physical development of pupils at the school.

Prepare pupils for the opportunities, responsibilities and experiences of adult life

Discuss all types of relationships with sensitivity and respect

Approach the teaching of SRE with an awareness of the children's needs in this area e.g. through informal assessment of their knowledge and understanding from other Science topics; through dialogue with the Headteacher about vulnerable pupils

Not be drawn into providing more information than is appropriate to the age of the child

Acknowledge questions that are too explicit which may need to be answered, at a parent's discretion, by the parent or carer.

Parental Involvement

Parents will be:

- informed of the dates and times of the Sex and Relationships Education sessions
- asked permission for their child to attend these sessions
- invited to view the materials to be used prior to the sessions taking place

Information leaflets relating to Sex and Relationships Education, including menstruation, will be made available for parents.

Withdrawal

Parents/carers have the right to withdraw their child from this specific element of the curriculum, except the NC science order. If they decide to do so, the Headteacher must receive prior notification in writing. Any children withdrawn will be accommodated in another class for that session

Child Protection

Any disclosures made by pupils relating to incidents of sexual or other forms of abuse will be treated as a child protection issue and advice from Social Services will be sought in accordance with the Cumbria Child Protection Policy and Guidance. Confidentiality will be maintained at all times if such incidents occur.

Special Educational Needs

For all pupils, there is a need for clear, explicit and repeated teaching about sex and relationships to avoid confusion. Pupils with learning difficulties may need to specifically learn things, which other pupils learn incidentally e.g. what being 'private' actually means. They may be more open to exploitation than other pupils and may need additional teaching to help them understand acceptable parameters and behaviours. Above all, they need the knowledge, skills and understanding to make informed, positive decisions about their own relationships and lives, and about their own safety.

Gender Issues and Sexual Stereotyping

Girls tend to have greater access to SRE than boys, both through the media (particularly magazines) and the home. We will consider the particular needs of boys, as well as girls, and approaches that will actively engage them. We shall also be proactive in combating sexism and sexist bullying. Teachers are careful not to reinforce stereotypes or traditional expectations of gender roles.

Ethnic and cultural diversity

Different ethnic and cultural groups may have different attitudes to SRE. The school will consult pupils and parents/carers about their needs, take account of their views and promote respect for, and understanding of, the views of different ethnic and cultural groups as and if necessary.

Sexuality

In accordance with DfES guidance, our approach to SRE will include sensitive, honest and balanced consideration of sexuality. We shall actively tackle homophobic bullying. This would include the use of 'gay' or 'lesbian' in a derogatory way.

Monitoring and Evaluating

The SRE programme will be evaluated by teaching staff. The views of students and teachers are used to make changes and improvements to the programme on an on-going basis. The policy will be formally reviewed each year for the following purposes:

- To review and plan the content and delivery of the programme of study for sex and relationships education
- To review resources and renew as appropriate
- To update training in line with current guidelines.

This policy will be made available to parents and will be reviewed on a biennial basis by the Governing Body of the school. This policy links to the Science Policy, and PSHE policy.