



Science Policy

Summer term 2019

Review frequency:	Every three years	Review date:	Summer term 2022
Governing committee responsible:	Pupils, Strategy & Resources committee		
Governor approval:	No	Website:	No
Staff responsible:	Subject Leader Head Teacher	Date produced:	Summer term 2019

Introduction:

Purpose:

All pupils at Clarborough Primary school are entitled to a broad and balanced Science curriculum. Science at Clarborough aims to teach our children the skills, knowledge and understanding they need to question and understand concepts and phenomena that occur in the world around them and equips them with the motivation to seek explanations for these. Children learn the skills required for scientific enquiry and they will begin to appreciate the way science will affect their future on a personal, national and global level. Science will significantly feature in many of the cross-curricular topics taught in our school.

Science at Clarborough is about giving children the tools to develop their ideas and ways of working that enable them to understand the world through investigation with independence, resilience and enjoyment.

Aims and principles:

To fulfil the requirements of The School Curriculum in Science we aim to:

- Ensure our pupils are successful learners by being included and respected.
- Help pupils to know they are safe and nurtured so they can be the best they can be.
- Ensure our pupils stay active and healthy.
- Show pupils to become effective contributors, confident citizens and to become globally aware.

To fulfil the requirements of The National Curriculum in Science we aim to provide opportunities for children:

- to develop enjoyment and interest in science and an appreciation of its contribution to all aspects of everyday life

- to build on curiosity and sense of awe of the natural world
- to take part in a range of investigations and practical activities to give pupils a greater understanding of the concepts and knowledge of science
- to be introduced to the language and vocabulary of science
- to develop basic practical skills and their ability to make accurate and appropriate measurements
- to extend the learning environment for our pupils via our environmental areas and the locality

Consultation:

In order to implement the Science curriculum, all teaching staff were consulted and agreed to maintain the aims and principles set out within this policy.

Procedures and practice:

Steps:

Intent- To become Scientists.

Science is about children developing a sense of enquiry and extending their knowledge and understanding of the world around them. It includes knowledge about living things, materials, energy and the solar system. Throughout the school, the children will be developing scientific skills that will lead to their work as scientists, planning and undertaking scientific investigations.

Implementation- Children at Clarborough learn through a thematic curriculum, with the teaching and learning of science being based on investigation, observation and application. Science is concerned with investigation and children using their investigations and knowledge to understand how the world is constructed. The theme is changed each term to ensure children are exposed to many different scientific topics throughout their time at school. Children at Clarborough will also take part in 10-minute science investigations to enhance their learning.

Impact- A broad and balanced knowledge Science will enable the children to use their knowledge and skills to make links to the wider world.

Roles and responsibilities:

Governors:

The Governors ensure this policy links to the whole school approach to teaching and learning.

Head teacher:

To ensure staff adhere to and uphold the policy.

Teachers:

The teaching of Science is in line with The National Curriculum and should equip pupils to:

- ask perceptive questions
- think critically
- Hypothesize and predict
- Plan and carrying out investigations.
- Observe and measure
- Present results by appropriate means, including use of ICT
- Evaluate results and draw conclusions

Teachers use a range of teaching and learning styles including; whole class teaching, talk partners, mixed ability groups, key questioning to promote higher order thinking and discussions and debates. Each year, time is set aside to review standards and monitor curriculum provision to ensure training and resources are up to date.

Pupils:

To demonstrate a conscientious attitude towards their learning of Science with an aim to be the best they can be.

Parents and carers:

To support the teaching and learning of Science, parents and carers are welcomed and invited in to class assemblies, pop up exhibitions and encouraged to support their child with creative homework.

Aspects:

Equal opportunities:

At Clarborough we believe that a broad and balanced science education is the entitlement of all children, regardless of ethnic origin, gender, class, aptitude or disability.

The Science curriculum is differentiated to suit the needs of all children, including those with special educational needs and disabilities. We take into account the targets set for individual children in their Individual Education Plans (IEPs). All necessary adaptations will be made to enable all children to access the curriculum. Pupils who show a particular talent for Science will be identified by the class teacher and will be included in our Incredible's display and the Science subject leader will be informed.

Health and Safety:

Children should be taught the correct and safe use of equipment and the carrying out of simple safety procedures as an intrinsic part of their science lessons. A risk assessment should be carried out in line with school policy in regards to any school trips or experiments out of school grounds. Safety equipment is available in the science cupboard. It is the

teacher's responsibility to ensure any investigations carried are done so in a safe way for the protection of their class.

Planning:

Science is planned through the Schools overarching creative curriculum, rather than standalone lessons. This is outlined in the teacher's long term plans, which follow the curriculum map, in Key Stages 1 and 2. In the EYFS they are planned through continuous provision following the children's interests. All teachers aim to implement the Magenta Principles and the findings of Chris Quigley when delivering the curriculum.

Teaching:

At Clarborough we aim to teach science in ways that are:

- imaginative, purposeful, well managed and enjoyable
- Giving clear and accurate teacher explanations and offering skilful questioning.
- Making clear links between science and other subjects
- Ensuring children are given enough time to study the four main areas of the science curriculum. These are: Scientific enquiry, Life and living processes, materials and their properties and physical processes
- Offering ample opportunity for practical investigation and enquiry.

Foundation Stage We teach science in the Foundation stage as an integral part of the topic work covered during the year. It comes under Understanding the World in the EYFS.

Children must be supported in developing the knowledge, skills and understanding that help them to make sense of the world. Their learning must be supported through offering opportunities for them to use a range of tools safely; encounter creatures, people, plants and objects in their natural environments and in real-life situations; undertake practical 'experiments'; and work with a range of materials.

Organisation:

The Science Curriculum will be delivered through a cross-curricular approach using a creative curriculum. It will be spread uniformly through a week, term, and year, with an adequate amount of time allocated to Science over the two key stages. Continuity and progression in each key stage will be achieved through the gradual extension of skills, concepts and content in topic planning

Homework/ involving wider community:

Teachers will set homework, as and when it is appropriate, for each year group. A creative or research-based approach is recommended where children have the opportunity to enhance their knowledge and understanding of science.

Resources:

We are continually developing our resources for Science teaching. Resources are kept in a central store where they are accessible to only teachers. Situated in the same store are collections of materials and objects of scientific interest, e.g. springs, gears, stones, shells etc. The school site is used as an educational resource offering different habitats, trees, flowers and grassland. Suitable activities and equipment are available to facilitate good usage of these sites. Educational visits and visitors are often linked to Science and include opportunities to study: the local environment, both urban and rural/animal and plant life in different habitats/exhibitions of scientific interest. Appropriate health and safety risk assessments are carried out.

Assessment:

As good practitioners we are continually assessing our pupils at Clarborough Primary School. All teachers are responsible for monitoring standards using the assessment procedures described in this policy. This is overseen by the Science co-ordinator termly.

Teachers will assess the children's learning in a topic both at the start and end of a topic, using a KWL style activity. Furthermore, the assessment of the children's work, skills and knowledge will be measured against the following:

- Written work.
- Questions and answers.
- Whole class and group discussions.
- Discussion between individual children and the teacher observation.
- Comparison with relevant level descriptors.
- Comparison with key stage programmes of study.

Monitoring and evaluation:

The Science co-ordinator is also responsible for the ongoing monitoring cycle. Every term they will carry out book scrutinies, monitor planning for coverage and conduct pupil voice interviews. Here feedback will be collected, evaluated and then shared with staff to help inform their planning.

Conclusion:

Monitoring and review:

The Science co-ordinator is responsible for the production and implementation of the action plan and curriculum mapping.

Other documents and appendices: