

North Stainley Primary School Science Policy



This policy outlines the teaching and learning of Science taught at North Stainley Primary School. The policy has been drawn up to reflect our whole school approach to Science and has been discussed with staff and has the agreement of the Governing Body. The implementation of this policy is the responsibility of all practitioners in the school learning community supported by and in partnership with parents.

Rationale

Science is part of almost all aspects of modern everyday life. It is a particular way of understanding the physical world, which requires precise approaches and ways of thinking. Science stimulates and excites pupils' curiosity about phenomena and events in the world around them. The aim of our teaching is to equip the children with a scientific approach to practical issues and satisfy their curiosity through knowledge.

We must ensure that our teaching is of a practical nature, relevant to the experiences of the children. Our teaching must offer continuity and progression throughout their primary years. Because science links direct practical experience with ideas, it can engage learners at many levels.

Aims

- To enable children to approach learning in science with confidence and high self-esteem
- To motivate children to learn, encouraging them to be enthused by their science experiences
- To develop children's communication skills, in particular the use of correct and appropriate vocabulary for objects and processes
- To ensure that every child has access to a range of science based experiences, which: are developmentally appropriate; make sense of their world through exploration and structured and purposeful play and experimentation; encourage independent thinking skills
- To provide both an indoor and an outdoor environment for the learning of science which is stimulating, accessible, safe, secure and challenging
- To provide opportunities that enable all children to experience science learning as an activity where there may not be a known outcome for the learner
- Provide science learning opportunities, stimuli and investigations that encourage children to actively explore and experiment with a range of materials in order to promote their curiosity and enthusiasm
- To help pupils to record in a variety of ways, the results of their enquiries and look for conclusions that can be drawn from them
- To consider at all times the safety of themselves and others and to use equipment in the proper manner
- To develop a positive attitude to science, which will promote perseverance, objectivity and a recognition of the importance of team work
- To develop a respect for all living things and the environment and an understanding of their interdependence
- To develop the skills of experimenting, devising and carrying out investigations and fair tests
- To encourage the ability to make predictions and suggest explanations based on an understanding of the world around them and scientific knowledge

The Organisation of Science in the Curriculum

Early Years Foundation Stage: Science is included in one of the six areas of learning known as Knowledge & Understanding of the World and we relate the scientific aspects of children's work to the Early Learning Goals. The resultant teaching and learning must be firmly based in the children's direct experiences, which will include their developing knowledge of their immediate environment including themselves, other people, and features of the familiar natural and constructed world.

Scientific learning occurs through:

- activities of a developmentally appropriate practical nature, based on first-hand exploratory experiences (for example, a nature walk, manipulating wet/dry sand, magnifiers to explore natural objects etc)
- enthusiastic and meaningful interaction with adults, who provide relevant opportunities to develop communication skills, use correct scientific language and open-ended questions to develop independent thinking skills
- exploration of both outdoor and indoor environments linking all areas of learning

Throughout the Foundation Phase and Key Stage One Science will be taught as an integral part of a theme linked with other areas of the curriculum where possible, although stand-alone topics can also be accessed if appropriate. Teachers planning and delivery of lessons should reflect the Foundation Phase ethos where pupils are encouraged to learn experientially.

Key Stage 1/Key Stage 2

Science is taught where possible through a topic-based approach or as a discrete subject. Planning follows the objectives of Chris Quigley Key Skills Curriculum and the North Yorkshire Science Scheme of Work.

All lessons must have clear objectives and learning intentions which are shared and reviewed with the pupils effectively. Activities to inspire the children to investigate and experiment include:

- asking questions and locating sources of information
- observation and discussion
- selecting appropriate equipment
- planning and carrying out exciting and appropriate practical experiments and investigations
- raising ideas and prediction, followed by testing
- collecting evidence, measuring and checking results
- make comparisons and identify patterns
- communicate results and findings

Lessons should make effective links with other curriculum areas where appropriate, such as English, Maths and ICT. Activities are challenging, motivating and extend pupils' learning.

Assessment

In the Early Years Foundation Stage assessment is ongoing, observations informing the next step in planning. Progress over the year is recorded in individual Learning Journeys and assessed against the Early Learning Goals. Evidence is collected in the form of observations, photographs and samples of work.

At KS1/KS2, pupils' knowledge and understanding are assessed before commencing each unit of work by questioning, discussion, observation, brainstorming or mind mapping. Assessment for learning is ongoing throughout each topic and underpins all we do. Evidence of assessment will be collected for each child and a mixture of questioning, discussion, AFL, photographs and marking are used to assess progress, in conjunction with the Chris Quigley Key Skills document. Each child's science attainment level is recorded and reported at the end of year.

Continuity

Continuity is achieved by planning the whole school curriculum for science together as a staff, taking into account subject matter and practical experiences given at each stage of their scientific education. This will also be monitored by the subject leader through lesson observations, pupil questionnaires and scrutiny of work.

Resources

Science resources are stored centrally in the school in a designated area, clearly labelled. Resources are audited annually by the subject leader and any monies allocated to the purchase of new resources must ensure that the curriculum can be delivered in an exciting and stimulating manner. In addition to this, we value human resources and offer parents and the wider community opportunities to come into school and share their expertise whenever possible.

Signed (Chair of Governors)_____

Date_____

Review date 2012-13 in line with new curriculum