



Policy For Design and Technology At North Stainley C.E. Primary School

*We are our school, we have our roots and foundation in
love*



Our school is us, we will grow, blossom and flourish.

Rooted and Grounded in Love

'Let your roots grow down into him, and let your lives be built on him.'
Colossians 2:7

Although Design and Technology is often linked with Art and Design, we have made a clear choice to link it with science projects. As part of our understanding in Science we want children to design and innovate in order to create a practical skill set which is useful in the wider world.

Aims of Design and Technology:

All children will be given the opportunity to:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.
- Critique, evaluate and test their ideas and products and the work of others.
- Understand and apply the principles of nutrition and learn how to cook.

Design and Technology Curriculum:

Foundation Stage

At our school the Reception Year is taught as part of a mixed aged KS1 class and so will follow the topic areas covered by the KS1 rolling programme. As the

Reception Year is part of the Foundation Stage of the National Curriculum the DT aspects of the children's work is focused on the objectives set out in the Early Learning Goals (ELGs), which underpin the curriculum planning for children aged three to five. DT makes a significant contribution to the objective in the ELGs of developing a child's 'knowledge and understanding of the world.'

Key Stage 1

In KS1, DT is taught in a two-year rolling programme with links to science and other subjects. Children are taught:

- To design purposeful, functional, appealing products for themselves and other users based on design criteria.
- To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.
- To select from and use a range of tools and equipment to perform practical tasks (cutting, shaping, joining and finishing).
- To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.
- To explore and evaluate a range of existing products.
- To evaluate their ideas and products against design criteria.
- To build structures, exploring how they can be made stronger, stiffer and more stable
- To explore and use mechanisms (levers, sliders, wheels and axles), in their products.
- To use the basic principles of a healthy and varied diet to prepare dishes.
- To understand where food comes from.

Key Stage 2:

DT in KS2 is also taught in a two-year rolling programme with links to science and other subjects. When designing and making, pupils are taught:

- To use research and design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.
- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
- To select from and use a wider range of tools and equipment to perform practical tasks (cutting, shaping, joining and finishing) accurately.

- To select from, and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.
- To investigate and analyse a range of existing products.
- To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- To understand how key events and individuals in design and technology have helped shape the world.
- To apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- To understand and use mechanical systems in their products (gears, pulleys, cams, levers and linkages).
- To understand and use electrical systems in their products (circuits incorporating switches, bulbs, buzzers and motors).
- To apply their understanding of computing to program, monitor and control their products.
- To understand and apply the principles of a healthy and varied diet.
- To prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- To understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Progression and Differentiation

Activities are planned to allow children to develop key knowledge, concepts and skills and to progress according to their ability. Activities within classes are matched to specific ability groups.

Assessment For Learning

Assessment for learning is continuous throughout the planning, teaching and learning cycle. Each half term the class teacher will assess each child against the learning objectives set out in the National Curriculum. In the Foundation Stage the class teacher assesses the children's knowledge and understanding according to the EYFS Early Learning Goals.

Responsibilities of the Subject Leader

- Monitor the effectiveness of DT teaching and learning by means of lesson observation, pupil interviews, learning walks, sampling children's work and overseeing assessment
- Provide feedback to teaching staff and the headteacher
- Periodically update the whole school planning overview (in consultation with all teaching staff) to ensure it remains relevant and appropriate.

- Attend subject leader network meetings and disseminate new information
- Support teachers in planning and delivering the curriculum
- Manage the resources for teaching DT.
- Report to the Curriculum Committee of the Governing Body as requested.

Resourcing

Some general resources are stored in classrooms. More specialist resources are stored centrally so that all staff can access them.

Equal Opportunities:

All children have equal access to the DT curriculum and its associated practical activities. All staff are responsible for ensuring that all children, irrespective of gender, learning ability, physical disability, ethnicity and social circumstances, have access to the whole curriculum and make the greatest possible progress. Where appropriate, work will be adapted to meet pupils' needs and extra support given if needed. More able pupils will be given suitably challenging activities. Gender and cultural differences will be reflected positively in the teaching materials used.

Health and Safety

- The safety of the children is the responsibility of the class teacher.
- The children are made aware of the safe use and correct procedure involved when using tools and equipment in a learning environment and how to follow proper procedures for food safety and hygiene.
- The children build up a range of skills when using equipment to reduce unnecessary risk.
- Specialist equipment (craft knives, low temperature glue gun), are used under direct supervision of an adult.
- All staff, including helpers, are made aware of food safety procedures when working with food to minimise any risks. The children wear protective clothing if necessary.

Review

This DT policy will be reviewed by the DT curriculum leader.

Date for next review of this document: May 2023

DT Curriculum Leader: Maggie Wilson