Crawshawbooth Primary School

DT Policy

May 2024

Mrs J Rigby

DESIGN AND TECHNOLOGY POLICY

Mission Statement

Crawshawbooth seeks to provide a happy and secure learning environment where a child's natural curiosity is provided with challenges, experiences and opportunities that will enable them to grow into caring, confident and informed citizens of the future.

Inclusion

At Crawshawbooth School all curricular subjects will be taught inclusively to all children to take into account their special needs, race, religion, culture, gender, sexual orientation and their family circumstances.

Aims and Objectives

Design and technology prepares children at Crawshawbooth Primary School to take part in the development of tomorrow's rapidly changing world. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas, and eventually making products and systems. Through the study of design and technology they combine practical skills with an understanding of aesthetic, social and environmental issues, as well as of functions and industrial practices. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and technology helps all children to become discriminating and informed consumers and potential innovators. Children will also learn to understand and apply the principles of nutrition and learn how to cook.

The objectives of teaching design and technology are:

- to develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making things
- to enable children to talk about how things work, and to draw and model their ideas
- to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures
- to explore attitudes towards the made world and how we live and work within it
- to develop an understanding of technological processes and products, their manufacture and their contribution to our society
- to foster enjoyment, satisfaction and purpose in designing and making things.

Teaching and Learning Style

The school uses a variety of teaching and learning styles in design and technology lessons. The principal aim is to develop children's knowledge, skills and understanding in design and technology. Teachers ensure that the children apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating them. We do this through a mixture of whole-class teaching and individual or group activities. Within lessons, we give children the opportunity both to work on their own and to collaborate with others, listening to other children's ideas and treating these with respect. Children critically evaluate

existing products, their own work and that of others. They have the opportunity to use a wide range of materials and resources, including ICT.

Differentiation to meet all children's needs offers suitable learning opportunities for all children by matching the challenge of the task to the ability of the child. We achieve this through a range of strategies:

- setting common tasks that are open-ended and can have a variety of results;
- setting tasks of increasing difficulty where not all children complete all tasks
- grouping children by ability, and setting different tasks for each group
- providing a range of challenges through the provision of different resources
- using additional adults to support the work of individual children or small groups

We give children of all abilities the opportunity to develop their skills, knowledge and understanding, and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Design and Technology Curriculum Planning

Design and technology is a subject in the New National Curriculum 2014. We use the local environment as the starting point for aspects of our work which are linked to thematic work.

The long-term plan maps out the units and skills covered in each term during key stage 1 in a two year rolling programme and in Key Stage 2 a two-year rolling programme. The subject leader works this out in conjunction with teaching colleagues in each year group.

Our medium-term plans give details of each unit of work for each term. They identify learning objectives and outcomes for each unit, and ensure an appropriate balance and distribution of work across each term.

Class teachers complete plans for each design and technology lesson. These work to the specific learning objectives and expected outcomes for each lesson. The class teacher keeps these individual plans, and they will be monitored by the subject leader.

We plan the activities in design and technology so that they build on the prior learning of the children.

The Foundation Stage

We encourage the development of skills, knowledge and understanding that help Foundation Stage children make sense of their world as an integral part of the school's work.

The reception children follow the Early Years Foundation Stage Curriculum. We relate the development of the children's understanding the world to the objectives set out in the Early Learning Goals. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and

using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control.

We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

Contribution of Design and Technology in the Curriculum

English

Design and technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their English lessons. Discussion, drama and role-play are important ways that we employ for the children to develop an understanding of the fact that people have different views about design and technology. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion children learn to justify their own views and clarify their design ideas.

Mathematics

In design and technology there are many opportunities for children to apply their mathematical skills through choosing and using appropriate ways of calculating measurements and distances. They learn how to check the results of calculations for reasonableness, and learn how to use an appropriate degree of accuracy for different contexts. Children learn to measure and use equipment correctly. They apply their knowledge of fractions and percentages to describe quantities and calculate proportions. The children will carry out investigations, and in doing so they will learn to read and interpret scales, collect and present data, and draw their own conclusions.
They will learn about size and shape, and make practical use of their mathematical knowledge, in order to be creative and practical in their designs and modelling.

Science

There are many opportunities in which design and technology can make effective links with science. Science focuses upon the natural world, finding out about living and non-living things. Design and technology takes on this learning and extends it into the designed and made world in which natural environments are changed to suit the needs of the user.

Personal, Social and Health Education (PSHE)

Design and technology contributes to the teaching of personal, social and health. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn, through their understanding of personal hygiene, how to prevent disease from spreading when working with food.

Our groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and cooperative work across a range of activities and experiences in design and technology, the children develop respect for the abilities of other children, and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety, and for that of others. They develop their cultural awareness and understanding, and they learn to appreciate the value of differences and similarities. A variety of experiences teaches them to appreciate that all people are equally important, and that the needs of individuals are not the same as the needs of groups.

ICT

Information and communication technology enhances the teaching of design and technology, wherever appropriate, in all key stages. Children use software to enhance their skills in designing and making things. Children are able to use desktop-publishing software to try out designs and ICT control programs to control mechanisms and to get them to move in different ways.

Assessment for Learning

Teachers assess children's work in design and technology by making assessments as they observe them working during lessons. They record the progress that children make by assessing the children's work against the learning objectives for their lessons. At the end of a unit of work, teachers make a judgement against the National Curriculum levels of attainment. Older children are encouraged to make judgements on ways in which their work can be improved. Teachers then use the levels that they record to plan the future work of each child, and to make an annual assessment of progress for each child, as part of the annual report to parents. Each teacher passes this information on to the next teacher at the end of each year.

Health and Safety

In this subject the general teaching requirement for health and safety applies. We teach children how to follow proper procedures for food safety and hygiene.

Monitoring and Evaluation

- The monitoring of the standards of children's work, and of the quality of teaching, is the responsibility of the design and technology co-ordinator. The work of the coordinator also involves supporting colleagues in their teaching, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school in liaison with the SLT.

Links to other policies

English
Maths
ICT
PSHE

Science
Single Equalities

Review

This policy was drawn up in February 2011. It was approved by governors in June 2011. The policy was reviewed and approved by staff and governors in May 2012, May 2013, May 2014, May 2015, May 2016, May 2017, May 2018, May 2019, May 2020, May 2021, May 2022, May 2023 and May 2024.

It will be reviewed annually or as necessary.