

<u>ST. ANNE'S C.E.(VC) PRIMARY SCHOOL</u> <u>DESIGN AND TECHNOLOGY POLICY</u> 'Together with God, Making Learning a Life Long Friend'

OUR VISION FOR DESIGN AND TECHNOLOGY

At St Anne's C.E. Primary School, we believe that Design and Technology is essential to prepare pupils to participate in rapidly changing technologies. Children will have opportunities to develop their investigating, designing, making and evaluating skills, by thinking creatively.

Design and Technology is an inspiring, rigorous and practical subject. Through this subject, children are given the opportunity to use their creativity and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Our children will be taught Design and Technology in a way that ensures progression of skills and follows a sequence to build on previous learning.

SUBJECT AIMS AND OBJECTIVES

Our aims in the teaching of design and technology are:

- to develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world;
- to 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;
- to critique, evaluate and test their ideas and products and the work of others;
- to understand and apply the principles of nutrition and learn how to cook.

SUBJECT LEADER

The member of staff responsible for leading Design and Technology at St Anne's is Miss Murray.

TEACHING APPROACHES

The school uses a variety of teaching and learning styles in design and technology lessons. 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.

At St Anne's we teach Design and Technology through the Kapow Primary scheme of work. Kapow works in line with the National Curriculum and the Development Matters Document through these four key strands of work:

- Design
- Make
- Evaluate
- Technical Knowledge

Through these key strands we teach the following four key areas from EYFS to Y6:

- Cooking and nutrition- Where food comes from, balanced diet, preparation and cooking skills. Kitchen hygiene and safety. Following recipes.
- Mechanisms/ Mechanical systems Mimic natural movements using mechanisms such as cams, followers, levers and sliders.
- Structures- Material functional and aesthetic properties, strength and stability, stiffen and reinforce structures.
- Textiles- Fastening, sewing, decorative and functional fabric techniques including cross stitch, blanket stitch and appliqué.

Through Computing (Purple Mash) and Science (White Rose) KS2 children will also explore the Digital World and Electric Systems.

DT be taught as a whole day or over two days to best make the use of time and adult support.

In all classes, there are children of differing attainment levels. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the attainment 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 attainment, 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.

PLANNING

Design and Technology is taught using the Kapow Scheme of learning. Kapow is a scheme the children are familiar with and as it is a platform we use to teach other foundation subjects. Staff use Kapow to support children introducing new and relevant vocabulary linked to the lesson. Previous vocabulary is recapped to support retaining language and using it correctly. Kapow uses the National Curriculum objectives and has links to the Development Matters Documents. Kapow is broad and balanced and builds on previous learning, both supporting and challenging learners. There is clear progression across each year group and resources are available to ensure Kapow is implemented and followed correctly.

CONTRIBUTION OF DESIGN AND TECHNOLGY TO THE DEVELOPMENT OF OTHER SUBJECTS

English

Design and Technology contributes to the teaching of English at St Anne's Primary School by providing valuable opportunities to reinforce what the children have been doing during their English lessons. Discussions 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 accuracy, also learning how to choose 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.

Personal, social and health education (PSHE) and citizenship

Design and Technology contributes to the teaching of personal, social and health education and citizenship. 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.

Spiritual, moral, social and cultural development

The teaching of design and technology offers opportunities to support the social development of our children through the way in which we expect them to work with each other in lessons. 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.

Computing

Computing 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. Younger children are able to use simple desktop-publishing software to try out designs. Older children use an ICT control program to control mechanisms and to get them to move in different ways, either in a virtual world or via an infrared connection to working models. The children also use ICT to collect information and to present their designs through a range of design and presentation software.

INCLUSION

We teach Design and Technology to all children, whatever their attainment and individual needs. Design and Technology forms part of our school curriculum policy to provide a broad and balanced education for all our children. Our teachers provide learning opportunities that are matched to the needs of children with learning difficulties. We strive to meet the needs of all pupils with special educational needs, disabilities, special gifts and talents, and of those learning English as an additional language.

ASSESSMENT AND RECORDING

We assess the children's work in Design and Technology while observing them working during lessons. At the end of a unit of work, we make a judgement against the National Curriculum levels of attainment using our skills grid and foundation subject assessment tool before making an annual report to parents.

RESOURCES

We have a wide range of resources to support the teaching of Design and Technology across the school. All our classrooms have a range of basic resources and additional supplies are kept in the Design and Technology cupboard. More specialised equipment is ordered as required. The resources are audited by Miss Murray and their locations are listed on the shared area for staff to easily find.

MONITORING AND REVIEW

The monitoring of the standards of children's work and of the quality of teaching in Design and Technology is the responsibility of the subject leader. The work of the subject leader also involves supporting colleagues in the teaching of Design and Technology, being informed about current developments in the subject, and providing a strategic lead and direction for the subject in the school.

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