

Holy Trinity Rosehill VA CE Primary School



Design and Technology Policy

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Policy for Design and Technology

Definition of Design and Technology

“Design and Technology (D&T) is the inspiring, rigorous and practical subject which prepares all young people to live and work in the Designed and made world”

The Design Technology Association.

Success in Design and Technology can be achieved through a subject approach or more likely in Holy Trinity Rosehill VA CE Primary through topic or thematic work.

As pupils progress, care should be taken over the effectiveness and aesthetic quality of the finished artefact.

Rationale for Design and Technology

At Holy Trinity Rosehill VA CE Primary we seek to amalgamate Design and Technology opportunities within our normal patterns of curriculum activity. We believe that Design and Technology describes a way of working in which pupils investigate a need or respond to an opportunity to make or modify something. They use their knowledge and understanding to devise a method or solution, realise it practically, then evaluate the end product and decisions taken during the process.

Design and Technology draws on knowledge and skills from many other areas of the curriculum. In particular it is closely associated with art, maths, ICT and science. For example, with scientific knowledge, pupils are better able to develop solutions for Design and Technology problems. We believe that pupils should experience working as a team. As their experiences grow they will understand that technological development rarely ends, since the evaluation of a product offers new opportunities for improvement. Throughout the three Key Stages, pupils in our school will be taught a range of skills and work with a variety of materials.

Aims Design and Technology

Design and Technology is a practical subject providing opportunities for all children to Design and make good quality products.

The general aims of Design and Technology in our school are to:

- Encourage the understanding of Technology in our everyday life and develop the technological capability of all children with respect to the whole school curriculum.

- Ensure progression and differentiation within the process of Design and Technology and the content as outlined in the programmes of study according to individual needs.

At KS1, our aim is to develop an interest and enthusiasm in Designing and making for all children. In order to achieve this, the will children carry out a range of activities, which will develop relevant basic skills and techniques. By the end of KS1 the children should be able to:

- Use simple tools correctly and safely to make simple products.
- Generate ideas through discussion.
- Begin to recognise that some materials are more appropriate than others.

At KS2 our aim is to develop designing and making skills, knowledge and understanding to the best of each child's ability. In order to achieve this, the children will carry out activities which will use a range of tools, materials and components. By the end of KS2 the children will be able to:

- Use a range of tools correctly and confidently.
- Choose suitable materials, tools and components for tasks.
- Evaluate and adapt work as part of the Design process.

Entitlement for pupils Design and Technology:

At Holy Trinity Rosehill VA CE primary School all pupils will be given equal opportunities to access their entitlement of the Design and Technology curriculum. This applies to all children regardless of age, gender, race and faith, and this is inclusive to children of all abilities.

Special Needs

We believe that pupils with special educational needs will obtain maximum benefit from Design and Technology if:

1. The work is challenging yet achievable.
2. Tasks are structured so that pupils can achieve success.
3. Teachers' expectations are appropriate.
4. Pupil's successes are recognised.

The Statutory Order makes provision for pupils with disabilities:

"A pupil who, because of a disability is unable to undertake a practical activity required under the programmes of study, may undertake an alternative activity which closely matches that activity."

Role Models

Boys and girls are encouraged to work with a range of materials, some of which may be unfamiliar. Pupils are encouraged by seeing both female and male teachers working on mechanical and construction tasks as well as working with food and textiles. We believe that pupils should see men and women breaking stereotyped roles.

Planning for Design and Technology

At Holy Trinity Rosehill VA CE Primary School all pupils will be given equal opportunities to access their entitlement of the Art and Design curriculum. This applies to all children regardless of age, gender, race and faith, and this is inclusive to children of all abilities. All pupils can access a broad and balanced Art and Design curriculum, which meets the specific needs of individuals and groups of pupils.

The Skills Based Curriculum for Design Technology.

At Holy Trinity Rosehill VA CE primary School we follow the National Curriculum September 2014.

The Foundation Stage follows the guidance from the new EYFS Framework - September 2013. (See Foundation Stage Policy)

Art objectives for each half termly are stated on the Medium Term Planning Skills Maps and are based on National Curriculum Design Technology Key Skills. They show continuity and progression of teaching and learning, meeting the specific needs of individuals and groups of pupils. Short term planning identifies learning objectives and outcomes, learning experiences and assessment opportunities.

Delivery of Design and Technology

In Design and Technology children are taught in single age and mixed age classes. They can be taught whole class, groups, pairs or as individuals.

Time: - It will be the responsibility of the year group teachers to determine how Design and Technology projects are programmed into the termly planning. In some instances it may be beneficial to 'block' a project, which will be started and finished over a period of days.

Covering the National Curriculum 2014

Early Years / Foundation Stage:

In the Foundation Stage, children will have the opportunity to learn cutting, joining techniques, to explore movement through construction kits and talk about products they make. They also experience opportunities to engage in food Technology and textiles.

KS1: Textiles

Food - Where food comes from. Food Preparation and Nutrition

Simple Mechanisms - inc. wheels/ axles, joints that allow movement

Structures

Reclaimed Materials

KS2: Structures

Textiles

Food

Mechanisms - control, produce different types of movement using electrical circuits

Mouldable Materials

At KS2 children are expected to work in teams and individually.

Developing D & T Capability:

In each task undertaken the children need the opportunity to:

- Design and make
- Investigate, Disassemble and evaluate Activities
- Practise and develop particular skills, techniques and knowledge i.e. Focused Practical Task.

Focused tasks will be used to teach the correct use of tools and equipment as well as develop specific skills. Work will be planned, over a two year cycle, to ensure progression and balance of skills.

Knowledge and Understanding

In Key Stage 1 and Key Stage 2 the children need to be taught:

- Design Skills - purpose, function appeal of products. Develop, model and communicate ideas through talking, drawing templates and mock ups.
- Practical Making Skills - select appropriate tools materials and components for specific tasks.
- Evaluating own ideas and Existing Products - explore and evaluate a range of existing products then evaluate their ideas and products against existing products and Design criteria.

- Technical Knowledge - build structures exploring how they can be made stronger, stiffer and more stable and explore and use mechanisms.

Links with other subjects - These will be detailed on the half termly plan.

Organisation for activities will vary, but there will be opportunities for whole class teaching, grouped work and individual work throughout the 2 year cycle.

Learning Outcomes - Children will Design and make a range of quality products. Design and Technology develops specific skills: a) an awareness and understanding of the importance of safe use of tools and materials. b) skills of planning, organising and independent working practical capability.

In Design and Technology we believe that the Design process is as important as the final product. Drawings, patterns and quick models will be included in displays to demonstrate the whole Design process.

Assessment of Design and Technology

Resource Management for Design and Technology

Resources are stored in classrooms and central stores. Coordinators carry out resource audits to match resources to teaching and learning. Consumable items are replaced according to need.

Health and safety Issues Related to Design and Technology

Design and Technology describes a way of working in which children investigate a need or respond to an opportunity to make or modify something. The teacher must be aware and identify the precautions which are necessary for safety. A balance needs to be achieved between autonomous learning in which the children develop their own ideas and the necessary supervision to ensure safety. Children will require specific training on safe ways to hold and use dangerous tools. It is important for the teacher to decide which activity will require close supervision and plan lessons carefully.

The arrangement of furniture and resources in the classroom must ensure easy access to tools and materials in a secure working environment for all children. Good organisation of tools and equipment is essential for safe working and for children to accept some responsibility for their own learning. There is a curriculum guide for health and safety, applicable to Cycle A and Cycle B themes. Staff are advised to check this guide for further

details regarding good practice in Design and Technology safety. Risk assessment for specific activities should always be considered.

Food Technology

Food safety and hygiene requirements will be acknowledged and implemented throughout our school; equipment will be handled correctly and stored appropriately. Other areas of the curriculum will be accessed and enhanced through the teaching of food Technology in our school. We aim to give pupils the opportunity to: Investigate eating patterns and lifestyles of other times and cultures; Experience a wide range of food preparation methods and understand the relationship between diet and health through the study of food and nutrition.

Foundation Stage and Key Stage 1 Aims and Objectives Food Technology -

- To make children aware of basic food hygiene and safety.
- To introduce basic food preparation skills and the use of tools and equipment.
- To introduce the balanced diet and its impact on their bodies.

Key Stage 2 Aims and Objectives Food Technology

- To apply the rules of food hygiene and safety.
- To extend food preparation skills and the accurate use of tools, equipment and utensils.
- To understand the implications of a balanced plate and identify its effect on the body.
- To recognise the working characteristics of basic foods and use them to Design products which have a variety of taste, colours and textures.
- To understand that food choice is affected by nutrition, culture, availability and cost.

Role of the Co-ordinator

The co-ordinator will lead the development of the Design and Technology in school to provide guidance and support when planning units of work. Monitor the development of Design and Technology within the school and throughout education nationally. Be responsible for organisation and maintenance of Design and Technology resources.