

St. James' C of E Primary School

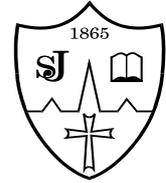
Design & Technology Policy

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Introduction:

At St James' C of E Primary School we believe that all pupils are entitled to a broad and balanced DT curriculum in order that they may better understand how the environment in which they live, work and play and the products they use and consume are designed and made.

The purpose of this policy is to:

- assist members of staff in their planning of D&T teaching, especially those new to the school.
- provide a reference for visitors to the school.
- enable the Head and Governing Body to identify priorities or issues pertaining to the position of D&T in the school.
- the philosophy underlying this policy is that all pupils are entitled to a broad and balanced D&T curriculum. It is important that children should begin to learn about D&T from an early age.

Aims:

Through D&T pupils should gain the knowledge, understanding and skills required to design and make products of good quality using a wide range of materials and components. They should learn how to evaluate and improve products to ensure they are fit for their intended purpose and to appreciate the impact of technology on everyday life.

Through developing capability in D&T pupils should be able to:

- work confidently and independently as an individual and as part of a team.
- approach all D&T activities in a positive and exploratory manner.
- state and make use of their knowledge and understanding of materials and components
- make products from a range of materials and components.
- shape, join, combine and treat materials using a range of skills, tools and techniques
- plan their work
- identify, develop and model design ideas such that they can be realised
- effectively communicate their designs, plans and decisions to others.
- act on the outcomes of their evaluations

- recognise quality in products from the viewpoint of the make, user and seller
- gain and apply a knowledge and understanding of mechanisms, structures and control
- use appropriate terminology and conventions.
- recognise hazards, assess risks and take appropriate action to provide safe and healthy working conditions.
- recognise the benefits and drawbacks of products on society and the environment
- recognise the contributions different cultures have made to technological developments
- develop spiritually (see Appendix 1)
- make appropriate use of ICT in DT activities
- involving chn in relating directly to their own environment both at home and in the wider community
- understand and apply the principles of nutrition, progressing to energy and nutrients, diet and health and nutritional needs throughout life
- to learn how to cook and be taught a range of food preparation and cooking skills and techniques which develop in complexity over time

Roles and Responsibilities

The role of the coordinator is to:

- to provide leadership, direction and support
- developing whole school policy and practice for DT
- move the school towards raising standards in DT
- evaluate progress and identify areas for development
- monitor DT across the school
- organising staff CPD
- managing the DT budget
- developing the coordinator's file/portfolio
- monitoring and auditing of DT resources
- monitoring the assessment of skills in DT

Teachers are responsible for:

- planning of lessons using the Key Skills
- the assessment of pupils
- following the programmes of study
- implementing the health and safety policy (Be Safe booklet)

Teaching and Learning

Teaching will be planned to implement this policy and the Scheme of Work whilst taking advantage of children's interest. A wide range of teaching approaches are appropriate for D&T. The approaches selected will be well matched to clearly defined learning objectives, the needs of different children and the available resources.

Curriculum Organisation

D&T will be:

- included in the taught curriculum for each term
- taught within topics and linked to other subjects except where it is inappropriate to do so

- the focus of at least one topic each term
- a food unit is taught once a year

Teachers will plan to the school's scheme of work which provides guidance about what D&T should be taught each year. This content provides progression in knowledge and understanding and identifies the techniques and skills which are needed to support both designing and making.

Planning

Teaching plans will:

- be based on this policy and the Programmes of Study
- clearly identify learning objectives
- be copied to staff server
- identify the Key Skills

EYFS

Early years children become familiar with a broad range of everyday materials and ways of joining them including construction kits, as in Development Matters document (Exploring and using media and materials).

Key Stage 1 and 2 (Appendix II)

Key stage 1 children will work with a range of construction materials, kits, food and textiles. They will be taught the knowledge and understanding required for designing, making and evaluating; as well as technical knowledge and cooking and nutrition.

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Assessment

The school will monitor and assess levels of attainment and achievement by teacher planning and observation. Assessment is incorporated into the schools medium term plans and is based on the key skills taught in each unit of work. Assessment of the pupils will be recorded on the short term plans. Teachers will also highlight the key skills taught.

Resources

These can be located in the DT room as well as in the drawer unit outside the staffroom. The D&T co-ordinators, supported by all staff, will monitor the availability, stock level, use and condition of resources. All resource needs should be reported to the D&T co-ordinators who will be responsible for obtaining them. Food preparation equipment and cooker is available in the DT room.

Visits/Visitors:

D&T activity will be stimulated and supported by visits and visitors. This might include the local environment, factories, museums, supermarkets and people such as the police, nurse and those from industries.

Helpers: -

- parents and other adults will be encouraged to support D&T

- will be provided with information about their work with specific groups
- will be instructed (alongside children) in the safe and appropriate use of tools, equipment and materials.

Special needs

Planning will provide differentiation for pupils of varying abilities. Differentiation in terms of learning objectives, tasks, teaching methods and resources will be planned for children with special educational needs. We aim to ensure that all pupils reach their potential in DT according to their individual needs. Tasks will be offered that will demonstrate and facilitate progress.

Gifted and Talented

Exceptionally able pupils need to be challenged by making greater use of intellectually demanding activities and the expectation of more general knowledge and abstract ideas and more precision in practical and intellectual tasks.

Equal Opportunities

We value equal opportunities for all of our children and believe that all pupils should have access to DT regardless of gender, race, cultural background or any physical or sensory disability and should be supported to make the greatest possible progress.

Health and Safety

When working with tools, equipment and materials, children will be taught the appropriate health and safety procedures and understand the steps they should take to control risks. Teachers should refer to:

1. NC Health and Safety Requirements.
2. The school policies for Health and Safety and Visits.
3. 'Be Safe' which is available in the staff room and published by the National Association for Advisers and Inspectors in Design and Technology.
4. D&T Co-ordinator for advice on Health and Safety.
5. Risk assessments are carried out prior to DT projects.

When organising off sites visits, teachers will refer to the school policy, 'Organising Educational visits'.

Review and monitoring of policy:

This policy has been developed through discussion with the teaching staff and governing body. It will be updated in line with new initiatives and changes to the curriculum. The DT co-ordinators, will monitor the implementation of this policy.

January 2016

SD/SW

APPENDIX I

Contribution of DT to other aspects of the curriculum:

As well as making its own distinctive contribution to the curriculum, D&T contributes to many other areas of the curriculum.

Environment Education

Through considering the impact of raw materials and products on the environment. Consider air miles for food and seasonality.

Multicultural Education

Through considering the contributions of a range of cultures to developments in technology as well as cultural beliefs, diets and personal food choices.

English

Reading and writing for collection information and source material, finding out about products, communicating ideas, making notes and following instructions.

Mathematics

Applying mathematical skills in a practical way, through choosing and using appropriate ways of measuring, collecting, representing and interpreting data.

Information and Communication Technology

Seeking information and data from CD Roms and the Internet, drawing to represent their ideas in pictures and words, graphs and charts to present their survey data in an attractive and appropriate way.

Science

Working with different materials, reversible and non-reversible changes, healthy living, nutrition, food groups and where food comes from.

Art and Design

Aesthetic appreciation colour, shape, texture, patterns; safe use of materials and tools recording visual information.

PSHE

DT activities can help children to reflect on how technology affects the environment and how design decisions are influenced by value systems. Developing sense of responsibility in following safe procedure when working with food, how to keep healthy, sharing opinions, listening to others, working co-operatively, as well as understanding personal hygiene and how to work in a hygienic manner.

Problem Solving and Thinking Skills

Identifying and using relevant sources of information, working collaboratively with others to solve problems, evaluate products.

APPENDIX II

Expectations:

By the end of each Key Stage it is expected that most children will be able to:

EYFS: (ELG)

Children know the importance of a healthy diet.

Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Use what they have learnt about media and materials in original ways, thinking about uses and purposes.

Represent own ideas, thoughts and feelings through design and technology.

Design:

KS1:

- design, purposeful, functional, appealing products for themselves and other users based on design criteria
- generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate, ICT

KS2:

- use research and develop design criteria to inform the design innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
- generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make:

KS1:

- select from and use a range of tools and equipment to perform practical tasks eg cutting, shaping, joining and finishing
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

KS2:

- select from and use a wider range of tools and equipment to perform practical tasks eg cutting, shaping, joining and finishing accurately
- 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

Evaluate:

KS1:

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria

KS2:

- investigate and analyse a range of existing products
- evaluate their ideas and products against their own criteria and consider the views of others to improve their work
- understand how key events and individuals in design and technology have helped shape the world

Technical knowledge:

KS1:

- build structures, exploring how they can be made stronger, stiffer and more stable
- explore and use mechanisms eg levers, sliders, wheels and axles in their products

KS2:

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products eg gears, pulleys, cams, levers and linkages
- understand and use electrical systems in their products eg series circuits incorporating switches, bulbs, buzzers and motors
- apply their understanding of computing to program, monitor and control their products

Cooking and Nutrition:

KS1:

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from

KS2:

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed