ST. CATHERINE'S C. OF E. PRIMARY SCHOOL

Policy Statement for Design and Technology

Introduction
This Document is a statement of the aims, principles and strategies for teaching and learning of Design and Technology at St. Catherine's Primary School.

This Policy will be reviewed annually.

What is Design and Technology (D & T)?
Design and Tecnhology is the process of designing, making and evaluating products fit for a purpose or improving, refining and extending the use of existing products. Using 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. They acquire a broad range of subject knowledge and draw on other subject areas such as mathematics, science, computing and art.

Aims
Our Aims in Teaching D & T are that all children will:

- 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.

Principles of the Teaching and Learning of Design and Technology

Design and Technology is important because:

- the designing and making of products is a pleasurable activity which can provide fulfilment throughout life.
- technological capability is essential to living and working in a technological society
- learning how to cook healthily and affordably is an important life skill.

Design and Technology is a foundation subject in the National Curriculum. The fundamental skills knowledge and concepts of the subject are set out in the Design and Technology section in the National Curriculum document, where the programme of study for each key Stage is based around 4 areas:

- Design
- Make
- Evaluate
- Technical knowledge

Cooking and Nutrition
As a part of their work with food, pupils will be taught how to cook, applying their understanding of nutrition and healthy eating, to enable pupils to learn a crucial life skill.

For the purpose of assessment and reporting, the attainment target sets out the knowledge, skills and understanding that pupils are expected to have by the end of each Key Stage.
Within the Early Years Foundation Stage Curriculum, Design Technology forms part of Knowledge and Understanding the World'.

Strategies for the Teaching of Design and Technology

The D & T Curriculum is currently based on the Units of Work within Cornwall's Inspire Curriculum; and fits into the current topic in each year group wherever appropriate.

- Design Technology in the Early Years Foundation Stage is undertaken as part of the area of learning, 'Understanding the World'.
- Approximately 1 hour per week is spent on Design and Technology in KS1 and 1 1/4 hours in KS2 but may be taught in larger blocks of time.
- Pupils develop their capability through focused practical tasks in which they develop and practice skills and knowledge.

- Capability is also developed through a specific assignment in which pupils design, make and evaluate a product using a range of materials and components.
- Pupils engage in activities to investigate, disassemble and evaluate simple products.
- Basic principles of health and varied diet, as well as opportunities to prepare and cook using a range of techniques, are offered at cookery clubs available to both KS1 and KS2 children.

Modes of working in D & T :

- ♦ co-operative group work, individual or paired work and class teaching are used where appropriate.
- ♦ Within this structure:
- ♦ groups are usually of mixed ability
- ♦ children are encouraged to develop inter-personal skills through discussion, enquiry and negotiation and working as part of a team.
- ♦ all pupils have equal access to the curriculum, regardless of gender, race, ability or background.

There is no specialist teaching in D & T, it is taught by class teachers.

Teaching Assistants are used in D & T to assist:-

- ⇒ in the classroom by supporting pupils with S.E.N.D
- ⇒ in the classroom by preparing materials and supervising group activities
- ⇒ on outings and visits to museums and to commerce and industry.
- ⇒ in providing other help, such as the demonstration of specialist skills.

Pupils with Special Needs receive support from the class teacher or teaching assistant to undertake exercises or projects geared to their level of ability and to take an effective and valuable role in mixed ability co-operative group work.
They include:-

- ⇒ pupils with learning difficulties who may need support with reading and writing but who may have well developed practical skills in designing and making.
- ⇒ pupils who have difficulties with practical tasks who may need more support and extra opportunities for practice.
- ⇒ pupils with particular ability and flair for Design and Technology who are extended through the use of additional, or more demanding, assignments.

The Emphasis in our Teaching of D & T is on providing opportunities for pupils to combine their designing and making skills with knowledge and understanding in order to design and make products. The focus is on the assignments in which we encourage children increasingly to take control of their own learning.
Thus:-
work in D & T draws on knowledge from all other subjects of the curriculum especially science, mathematics and art; and there are valuable links with Literacy and I.C.T.
work in D & T aims to build the skills, knowledge and understanding necessary to complete an assignment.

Excellence in D & T is celebrated in display and presentation including:-

- ⇒ suitably mounted displays in classrooms and throughout the school.
- ⇒ presentation and display of work in assemblies and other public occasions.
- ⇒ the collection of work samples and photos for a Design Technology portfolio.

Strategies for Ensuring Progress and Continuity

Planning in D & T is a process in which all teachers are involved, wherein

- the foundation for curricular planning is the Whole School Development Plan, developed through a process of collaboration between staff, and approved by Governors
- topic plans are drawn up by staff and are carefully balanced to ensure full coverage of the National Curriculum and the Early Years Foundation Stage Curriculum.
- Staff meetings are held when required to discuss the Design and Technology curriculum and ensure consistency of approach and of standards.
- termly and half termly plans are drawn up by individual teachers and monitored by the headteacher, deputy headteacher and subject co-ordinator.
- the use of the Inspire Curriculum Units of Work in D.T. ensures that skills are built upon previous Units of Work.

The Role of the D & T Co-ordinator is to:-

⇒ take the lead in policy development and the production of schemes of work designed to ensure progression and continuity in Design and Technology throughout the school.

⇒ support colleagues in their development of detailed work plans and implementation of the schemes of work and in assessment and record keeping activities.

⇒ monitor progress in Design and Technology through lesson observations and work sampling and advise colleagues on action needed.

⇒ take responsibility for the purchase and organisation of central resources for Design and Technology.

⇒ keep up to date with developments in Design and Technology education and disseminate information to colleagues as appropriate.

Feedback to pupils about their own progress in Design and Technology is achieved through discussion and the marking of work.

Effective marking and verbal feedback:-

⇒ aims to help children learn, not to find fault, and to be positive and constructive.

⇒ is done while a task is being carried out through discussion between child and teacher.

⇒ of written work and design drawings may be carried out in the absence of pupils but is followed up by discussion between child and teacher.

Formative Assessment is used to guide the progress of individual pupils in Design and Technology. It involves identifying each child's progress in each aspect of the subject, determining what each child has learned and what therefore should be the next stage in his/her learning. Formative assessment is mostly carried out informally by teachers in the course of their teaching.

Suitable tasks for assessment include:-

⇒ small group discussions perhaps in the context of a practical task.

⇒ specific assignments for individual pupils.

⇒ individual discussions and self-assessment sheets in which children are encouraged to appraise their own work and progress.

⇒ peer assessment in which pupils are encouraged to make constructive comments about the work of other pupils.

Strategies for Recording and Reporting

Records of Progress in D & T will contain:-

- a record of progress for each child within the expected age related standard in the National Curriculum, for KS1 and KS2.
- a record of progress for each child in the Early Years Foundation Stage, in the Understanding the World section of the Early Years Foundation Stage Profile.
- a school portfolio, containing photos of D.T. work and annotated samples of work, designs and evaluations, to show progress and achievement across the Year Groups.

Reporting to Parents is done through parent consultations when required and annually through a written report and meeting with the Teacher.

Reporting in Design and Technology will focus on each child's:

- designing and making skills
- knowledge and understanding
- Reporting to Parents of Early Years Foundation Stage children will focus on the child's knowledge and understanding of the world.

Formal Summative Assessment is carried out at the end of each National Curriculum Year through the use of teacher assessment.

Strategies for the use of Resources

Classroom Resources in D & T include a variety of regularly used tools and materials for cutting, shaping, joining and combining (e.g. scissors, glue) and paper, card and junk modelling materials.

Central Resources in D & T are the responsibility of the Design and Technology co-ordinator who has a small budget available. They include:-

- a wide range of less commonly used tools for cutting, shaping, joining, combining and finishing (e.g. woodwork tools)
- a range of stiff flexible sheet materials (e.g. wood, plastics)
- food technology equipment and cookers
- textiles
- electrical and mechanical components and construction kits

Information Technology is a resource which is used in Design and Technology for:-

⇒ planning and design.
⇒ research - using the internet or encyclopaedias on CD-ROM.
⇒ desk top publishing of printed materials.
⇒ recording using school digital cameras or video.

The Library is used in Design and Technology for reference - a wide selection of books is available covering materials, mechanisms and control, structures, products and applications.

Health and Safety Issues in D & T include:

⇒ use of materials, tools and techniques in accordance with health and safety requirements.
⇒ appropriate storage of tools and materials.
⇒ teaching pupils to recognise hazards in a range of products, activities and environments and take action to control the risks to themselves and others.

Towards the Future:-

The D.T. Co-ordinator will:-

⇒ check the condition of D.T. resources and update the list of centrally held resources.
⇒ purchase the necessary materials and equipment within the budget available.
⇒ continue to monitor D.T. teaching and learning through observations of lessons and the collection of assessment record sheets, work samples and photos for the D.T. portfolio.

This D.T. Policy—will be reviewed annually