St Hilary's School
POLICY FOR DESIGN & TECHNOLOGY

Introduction

At St Hilary's School, we see education as a partnership between the family and the school. Our school is dedicated to preparing our children for their adult life beyond formal education and ensuring that it promotes and reinforces British Values to all our children. We actively promote democracy, the rule of the law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs. These are fundamental British Values which underpin all that we offer, as does our School Moto 'Not for oneself but for all.'

What is Design & Technology?

Design & Technology (D.T.) is the process of designing, making and evaluating products to fit a purpose, or of improving and extending the use of existing products. It is a creative and practical subject, with a considerable intellectual element: children do and make, whilst simultaneously learning and understanding.

"I hear and I forget,
I see and I remember,
I do and I understand."
Chinese Proverb

Aims

- To develop the knowledge, skills and understanding necessary to design, make and
- evaluate products fit for a purpose '
- To develop the practical skills to work with a wide range of materials, tools and components ("life-skills")
- To participate in a pleasurable activity which can provide fulfilment throughout life
- To develop understanding of control systems, energy and structures (basic engineering principles)
- To become aware of the impact of Technology and Design, and their contribution to the quality of life (to become discriminating consumers)
- To draw upon and synthesise skills and knowledge acquired in other areas of the curriculum, notably Science, Mathematics and Art, but also Language and the Humanities
- Problem-solving: to approach tasks independently, learning from "mistakes" and recognising that most problems are capable of several solutions '
- To acquire an overall Technological capability which will equip individuals to live and work in a technological society

Principles for the Teaching & Learning, Assessment & Reporting of D.T.

- D.T. is a Foundation Subject in the National Curriculum, in which the Attainment Target of Knowledge, Skills & Understanding is divided into four sections:
- Developing, planning and communicating ideas
- Working with tools, equipment and components to make quality products
- Evaluating processes and products
- Knowledge and understanding of materials and components
- Reception D.T. follows the guidelines laid down in the Q.C.A. Curriculum Guidance for the Foundation Stage (EYFS creative design)
- At Pre-Prep, D.T. is taught by class teachers in the classroom base, with the help of teaching assistants, who help prepare materials and supervise groups. It is an integral part of other classwork at this stage.

Strategies for teaching D.T.
The curriculum is organised as follows:

- At Prep, D.T. is taught within the enrichment timetable. At this stage it is taught as a discrete subject through STEM activities.

- D.T. is studied for an average of approximately 40 mins per week at Pre-Prep, and for a regularly timetabled 1 hour 20 minutes throughout the academic year at Prep.

- Children develop a broad capability through:
    - Focused Practical Tasks to develop and practise specific skills and knowledge
    - Analysing existing products
    - Larger-scale Design-and-Make-Assignments in which a range of materials and
    - components are used

The predominant mode of working is individual, within co-operative groups:
- Of mixed ability
- In which inter-personal skills are developed through discussion, enquiry, negotiation and teamwork.

Equal opportunities are provided for all children, regardless of gender, race or social background, and the contribution of each child is valued.

Pupils with special needs receive support from the teacher and/or teaching assistant. Tasks are open ended, and differentiation is built into the units of work so that all children undertake activities appropriate to their abilities.

Homework is used informally as a support, through such tasks as:
- Library research
- Collection of artefacts/materials
- Voluntary extra work

The emphasis of teaching is on providing opportunities for pupils to combine their Designing and Making skills with Knowledge and Understanding, in order to design and make their own products. We encourage the children to become increasingly
independent. Thus:

- Work draws on experience from many other subject areas of the curriculum, particularly Science, Technology, Engineering, Art and Mathematics
- Units of work are planned to build up the skills, knowledge and understanding necessary to complete a later larger-scale task

Assessment takes place through analysis of the children's progress in relation to the skills and knowledge described on the excel document, notes are sometimes made on the outcome of each project observed in the course of teaching. Group discussions and self-assessment encourage an analytical process of working for the children through on-going self-evaluation of projects.

Excellence is celebrated in:
- Displays in classrooms and throughout the school

- Presentation of work in assemblies and other “public” occasions
- Awards such as, Prep House Points are mentioned in the “Celebration assembly”

Strategies for ensuring Progress and Continuity

Planning involves all who teach D.T.:
Teachers and the D.T. Co-ordinator develop, review and modify the Scheme of Work, comprising:

- A whole-school Long-Term Plan
- Schemes of work for each topic
- More detailed Medium-Term Plans for each unit of work

The D.T. Co-Ordinator

- Takes the lead in policy development and collates a Scheme of Work ensuring progression and continuity
- Supports colleagues in developing and implementing work-plans
- Monitors progress and advises the Headmistress on action needed
- Takes responsibility for the purchase and organisation of resources at Pre-Prep & Prep
- Keeps up to date with developments in D.T., shares information with colleagues, organises and minutes D.T. meetings, and facilitates INSET
- Feedback to pupils about their progress, aims to be positive and constructive rather than fault-finding. This is achieved by the evaluation of and discussion about practical work

Strategies for Recording and Reporting

Records of progress for each child take the form of:

- the teacher’s record of termly progress using class profile excel document.

Reporting to parents is done via the school schedule of:

- Interviews with parents through the form teacher using written notes/grades where appropriate
- Written reports

Strategies for the Use of Resources
Charging: Parents are not charged for any materials used in D.T. All materials are purchased from the D.T. Budget (Pre-Prep & Prep)

Classroom resources at Pre-Prep include:

- Paper, card, and mouldable-, framework- and reclaimed-materials
- Construction kits
- A variety of regularly used tools for cutting, shaping, joining and combining (e.g. scissors, glue)

Central resources are the responsibility of the Co-ordinator. A range of more specialised tools and materials is available:

- In the D.T. workshop -woodworking tools, craft-knives, electrical and pneumatic components, plastic, wood, textiles, yarns, sewing-machines, and a wide range of publications on D.T. matters
- Food-preparation Trolley — normally housed in the Nursery

The library is used for reference whenever appropriate

Health and Safety
The D.T. Department complies with the School Health and Safety Policy. The Health and Safety issues are discussed regularly in H&S meetings each term and The Head of Department Folder contains the risk assessments which are also stored in the H&S folder.

Lego Innovation Studio
In September 2019 St Hilary's opened the Lego Innovation Studio 'The Hive,' where pupils can take part in activities which promote critical thinking, creativity, collaboration and communication skills using Lego-We-Do 2.0 sets. Activities, which take place through a timetabled enrichment afternoon, draw on experiences from other areas of the curriculum, I particular Science, Technology, Engineering, Art and Mathematics (STEAM activities).

Reviewed: June 2019, June 2020
Next review date: June 2021
Person responsible: Ross Fairbairn (Head of Design & Technology)