Cavendish Primary School

Design and Technology Policy

Summer 2008
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Introduction

This document is a statement of the aims, principles and strategies for the teaching and learning of design and Technology at Cavendish School. It has been developed through a process of consultation with school staff and governors.

Design and Technology at Cavendish

Design and Technology prepares children to take part in the development of tomorrow's rapidly changing world. Creative thinking encourages children to make positive changes to their quality of life. The subject encourages children to become autonomous and creative problem-solvers, both as individuals and as part of a team. It enables them to identify needs and opportunities and to respond by developing ideas and eventually making products and systems. Through the study of design and technology at children combine practical skills with an understanding of aesthetic, social and environmental issues. This allows them to reflect on and evaluate present and past design and technology, its uses and its impacts. Design and Technology helps all children to become discriminating and informed consumers and potential innovators.

Aims

- to develop imaginative thinking in children and to enable them to talk about what they like and dislike when designing and making;
- to enable children to talk about how things work, and to draw and model their ideas;
- to encourage children to select appropriate tools and techniques for making a product, whilst following safe procedures;
- to explore attitudes towards the made world and how we live and work within it;
- to develop an understanding of technological processes, products, and their manufacture, and their contribution to our society;
- to foster enjoyment, satisfaction and purpose in designing and making.

Teaching and Learning

We use a variety of teaching and learning styles in design and technology lessons. The principal aim is to develop children's knowledge, skills and understanding in design and technology. 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/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.

In all classes there are children of differing ability. We recognise this fact and provide suitable learning opportunities for all children by matching the challenge of the task to the ability 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 ability 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.
Through the use of Teaching Assistants to support learning of individuals or small groups.

The quality of learning in DT will be celebrated in display and performance including suitably mounted 2D/3D and interactive displays, competitions for published materials eg calendars, posters and cards, presentation of work in assemblies.

Planning

Design and Technology is a foundation subject in the National Curriculum. Our school uses the QCA scheme of work as the basis for its curriculum planning in design and technology. We have adapted the QCA scheme to the local circumstances of our school in that we may use the local environment as the starting point for aspects of our work. Many opportunities for cross-curricular work are utilised. At KS1 DT will be taught for 30hrs over the year and at KS2 for 33hrs. In the Foundation Stage aspects of D&T are planned for delivery in Knowledge & Understanding of the World. They also learn to use simple tools safely and experiment with a range of materials and ways of joining them. (See p76 of Practical Guidance for Early Years, Foundation stage.)

We carry out the curriculum planning in design and technology in three phases: long-term, medium-term and short-term. The long-term plan maps out the units covered in each term during the key stage. The design and technology co-ordinator plans this in conjunction with teaching colleagues in each key stage.

Our medium-term plans, adopted from the QCA scheme, give details of each unit of work for each term. They identify learning objectives and outcomes for each unit, and ensure an appropriate balance and distribution of work across each term. This planning is recorded electronically using the school planning software “Curriculum Complete”.

Class teachers complete a daily plan for each design and technology lesson These list the specific learning objectives and Process Success Criteria for each lesson and detail how the lessons are to be taught along with details of any support or resources needed. The class teacher keep these individual plans.

We plan the activities in design and technology so that they build upon the prior learning of the children. We give children of all abilities the opportunity to develop their skills, knowledge and understanding and we also build planned progression into the scheme of work, so that the children are increasingly challenged as they move through the school.

Assessment

At Cavendish Primary School assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. The assessment of children's work is on-going to ensure that understanding is being achieved and that progress is being made.
Feedback is given to the children as soon as possible, and marking work will be guided by the school's **Marking and Feedback Policy**.

- This aims to encourage and to give guidance for future work.
- Ticks and written comments are clear, with errors indicated.
- Some marking will be immediate, depending on the activity.
- Oral feedback is given to enhance understanding.

Formative assessment enables the teacher to identify a child's understanding and progress, to inform their immediate teaching and to plan for their coming lessons. This can take the form of:

- discussing Design and Technology in the context of a practical task or design evaluation;
- observation;
- individual discussions with children to evaluate progress.

Summative assessment establishes a level of ability within the subject on the basis of Teacher Assessment in each unit of study. Regular assessment allows for early identification of children with difficulties. These assessments are recorded in the teachers assessment folder and passed on to the subject co-ordinator and the child's next teacher.

Record Keeping
Records will be kept of the extent to which each child in the class has achieved the key objectives for each unit of study. Class tracking sheets are used to record childrens levels of achievement for each unit of study, copies of these are kept on the school server so that the co-ordinator can monitor standards.

Inclusion

Children with SEN and /or learning difficulties or disabilities

Where possible, through the use of appropriate support and differentiation, children with SEN will be working towards the same learning objectives as their peers. From time to time, those working well below the level of the whole class may be working towards related objectives chosen from the relevant aspect of learning from an earlier year. Those children with special needs may be given additional support or extra teaching in small groups to help them achieve their targets. Lower attaining pupils should have access to a wide range of practical resources to help develop thinking and understanding in the subject.

Children who are gifted and talented

Children who are working well above the overall level of the class will be given a range of experiences designed to broaden or deepen their learning while working on the same learning objectives as their peers. This may be done by providing more demanding questions and investigations, often with a more open-ended approach. From time to time they may also be accelerating the pace of their learning by working towards objectives chosen from the relevant aspect of learning from a later year.

Children learning EAL

Children learning English as an additional language may need support in developing language and concepts. Through the use of appropriate support and differentiation EAL pupils experience the same level of cognitive challenge as their peers. Some pupils may receive additional support from the Hounslow Language Service teacher to understand the necessary technical vocabulary.

Equal Opportunities

All children have an equal opportunity regardless of gender, race or ability, to progress and succeed in their learning and understanding. We pay particular attention to ensuring there is no gender bias in tasks or materials or in access to resources, including ICT. In fact we take care to ensure that take a positive approach in the subject to counter stereotyping. Teachers should pay attention to the equal distribution of their questions across all groups. Any displays and references to Design and Technology in society should show positive role models of gender, race, ethnicity and disabilities.

ICT
Where appropriate ICT is used in the teaching of DT eg researching products and design features, producing drawings or plans, photographing finished products or phases in the construction process to illustrate word-processed reports. Pupils also use ICT to control and programme their models and they use graphical modelling programmes to design environments.

Design and Technology across the curriculum
Although the Design and Technology curriculum is organised as a discrete subject, there are many potential cross-curricular activities.
Making links between areas of learning deepens children's understanding by providing opportunities to reinforce and enhance learning.

Learning is enhanced by:

- Giving further opportunities to practise taught skills through purposeful use in other curriculum areas;
- Providing real experiences, context and meaning for the development of core skills;
- Providing opportunities for the application of knowledge in new contexts, to involve children in higher order thinking skills, such as reasoning and problem solving;

Reporting to parents

Reporting to parents is carried out through the twice-yearly parent / teacher consultation meetings and annually through the written report. Parents are given teacher assessments and the results of any testing carried out. They are provided with information on children's areas of strength and / or weakness and on their rate of progress in Design and Technology. Any specific areas of difficulty or clarification can be discussed with the parents on an informal basis.

Monitoring and evaluation

The purpose of monitoring and evaluating activities is to raise the overall quality of teaching and levels of pupil attainment. The Design and Technology co-ordinator will monitor the quality of teaching and learning and the monitoring will include:

- Scrutiny of planning
- Making judgements on the quality of teaching and learning through lesson observations and through feedback
- Moderation of standards in children's work
- Evaluation of children's attainment against targets.

The role of the Design and Technology co-ordinator is to:

- Take the lead in policy development and review;

- Keep up-to-date on local and national initiatives and disseminate information;
- Take responsibility for the purchase and organisation of Design and Technology resources;
- Monitor the planning for Design and Technology across the school;
- Write, review, implement and update the DT Curriculum Action Plan;
- Encourage the professional development of staff;
- To monitor Design and Technology lessons;

The role of the class-teacher is to
- make themselves aware of all Health and Safety guidance relating to DT and to teach children about safety in the subject before allowing them access to tools;
- be aware, in advance, of what is needed in each unit of study so that resources can be ordered in good time and any misconceptions or doubts about the content of the unit can be clarified by the co-ordinator;
- replace all tools and materials, cleaned if necessary, to the correct place in the DT resource area as soon as they are finished with and inform the co-ordinator of any losses, breakages or shortages so that orders can be placed.

Policy monitoring and review
The DT coordinator is responsible for the monitoring of the implementation of this policy. The co-ordinator reports to the SMT and Headteacher on the effectiveness of the policy and to the governing body upon its review.
The policy will be reviewed every four years.

Health and safety

The general teaching requirement for health and safety applies in this subject. We teach children how to follow proper procedures for food safety and hygiene. We teach children safe handling of tools and equipment. Health and Safety guidance notes from CLEAPS are available to staff to help with this. These are kept in the D&T and Science Resource Area in the basement and additional copies are kept in the relevant Unit of Study crates in the same area.

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