



# Canon Burrows CE Primary

## Design and Technology Policy



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## **1. Intent and Policy Statement for Design and Technology**

Design and technology is an important part of the education at Canon Burrows School. Our primary intention is to serve the children of our community. Our design and technology curriculum is intended to provide a rich and engaging experience which provides an exceptional foundation for life-long achievement in the subject. Design and technology is embedded into our ambitious thematic approach; providing breadth and depth and a strong foundation that promotes deep learning and higher order thinking. Children are supported to apply new learning and skills independently and in a variety of contexts.

All children in the school learn design and technology through practical, challenging and yet safe activities based initially on their immediate personal experiences eg playgrounds and later on a broader range of contexts eg structures. They learn about design and technology in their lives and the wider world. Children in the Foundation Stage develop their ideas and skills about the world of technology through Understanding of the World. The school is committed to the highest standards of pupil achievement based on positive attitudes where children learn to design and make.

Design and technology involves children considering human needs (e.g. for clothing) and ways to design and make artefacts to fulfil those needs. The context of the work is most important in design and technology education. Teachers' choice of content will be guided by the scheme of work and will promote inclusion through sensitivity to the range of children's backgrounds, both economic and cultural. We believe that all children benefit from design and technology in terms of its contribution to their overall capability and from the way that design and technology links with other areas of the curriculum like English, mathematics, science and history.

Our scheme of work ensures that the children cover all of the requirements of the National Curriculum through the school's design and technology overview. There is a particular emphasis on creativity which goes on within these aspects of design and technology. Teachers are given specific advice about resources and materials, as well as how to support all abilities in their progress of design and technology.

We consider that attitude to work is very important and so place considerable emphasis on the quality of children's work. We know that children produce their best work when they are interested, we therefore go to considerable effort to make the design and technology as realistic as possible i.e. we ensure that the children understand the context of the design and technology.

This policy promotes progression in children's learning and high standards. Monitoring the progressive development of design and technology goes on in the classrooms by teachers and across the whole school by the design and technology subject manager, in line with the school's monitoring cycle and school improvement plan. Periodic evaluation is conducted. Central to this is regular assessment both informally and formally in design and technology and careful feedback to children.

## 2. Implementation

In our design and technology lessons we strive to bring awe and wonder to children's learning through engaging experiences that go above and beyond the classroom. Within the classroom, high expectations for all allow for an environment in which children can thrive. As a Church school, our commitment to fulfilling our Christian Values is crucial as these underpin building positive relationships and ultimately create good citizens of the future, preparing them for opportunities, responsibilities and experiences throughout their life. Strong structures and routines encourage independent and collaborative learning wherever possible and children often take on the role of lead learners, enabling them to take risks in a safe environment

At Canon Burrows, we recognise that enjoying positive, supportive relationships in our daily lives is key to our happiness and fulfilment. Having positive, supportive relationships is essential, not just for personal fulfilment, but for us to be able to fulfil our curriculum intent. In line with the school's teaching and learning policy there will be a mix of class teaching group and small group work. Generally teachers should consider class teaching on occasions when it is the most effective way to put ideas over. Group work will be used when there is need for concentrated teacher/adult input or on occasions where resources (including space) dictate group work (in these cases the subject manager should be informed as we hope to provide sufficient resources for all teaching styles.)

Practical work will be a strong feature of design and technology teaching, this will include children's investigations, introduction to new concepts and resources. In cases where children's practical work is impossible or dangerous teaching will be highly interactive. Teaching will feature, clear explanations, summaries, demonstrations, illustrations, examples and challenges.

## 3. Design and Technology Curriculum Planning

### Planning

Teachers are given guidelines of which units to cover as part of the whole school overview. Plans include a series of learning objectives drawn from the relevant programme of study. Plans should include investigatory activities, focused practical tasks and design and make tasks. Within these will be, a clear role for the teacher, opportunity for teacher assessment, self-assessment by the children and emphasis on safety.

It is at a teacher's discretion whether to teach design and technology weekly or whether it may be preferable to block a unit. Allowing class teachers this flexibility ensures that they are matching the teaching and learning to their children's interests and abilities. If they wish to switch the order of units around, the design technology subject coordinator is to be informed.

### Scheme of Work

The scheme of work for design and technology builds from the whole-school curriculum plan and overview which can be found in the appendix. It gives directions about the nature of

Teachers have access to the school's subscription of the Design and Technology Association website: <https://www.data.org.uk/> in order to support their planning and subject development.

## 5. Differentiation

In our teaching of design and technology we will use differentiation: by outcome; by task; by resource and by support as advised by the school's teaching and learning policy. It is suggested that differentiation by outcome is balanced with other forms of differentiation. Children will do similar activities, teachers will assess the outcome and then adapt aspects of teaching and activities which follow.

Differentiation in design and technology can also be planned for in:

- ◇ the expectations,
- ◇ the time teachers give to individuals and groups;
- ◇ instructions adults give;
- ◇ the support adults give;
- ◇ the expectations teachers have of the children;
- ◇ the time allowed for the activity;
- ◇ the material and equipment provided;
- ◇ the range of choice available.

Teachers should make a professional decision about which handful or one of these you might employ in a lesson.

## 6. Impact and Progression

Children and their families are proud to be members of our school community and acknowledge the impact of our breadth and depth curriculum on their children's progress and outcomes. We expect all children to progress in design and technology in a number of areas. These will include progressively:

- ◇ using more design and technology vocabulary more accurately;
- ◇ taking more responsibility for design and technology projects;
- ◇ moving from familiar to less familiar contexts;
- ◇ selecting and safely using an increasingly broad range of tools and materials;
- ◇ increasing personal knowledge and making more links between areas of design and technology;
- ◇ development of the use of everyday language to increasingly precise technological terminology;

- ◇ from unstructured design and make, to increasingly systematic work, including; working as part of a team;
- ◇ increasing accuracy;
- ◇ from using simple sketches to use of these alongside more formal plans and diagrams.

The medium term plan is designed so that in each key stage children have the opportunity to return to concepts and skills spirally. The scheme of work refers to design and technology skills, vocabulary and ICT/computing. It ensures that children return to aspects of the subject within the meaningful contexts offered.

## **7. Assessment and Moderation**

Assessment in design and technology proceeds on the basis of teacher assessment and profiling in the Foundation Stage. As in the school's assessment policy, the day to day assessment proceeds, based on sound planning where specific learning objectives and related outcomes and criteria for assessment are identified. Teachers share the objectives and the criteria with the children. Teachers provide opportunities for pupil peer evaluation and self assessment.

Children demonstrate their ability in design and technology in a variety of different ways. Teachers will assess children's work by making informal judgements during lessons. On completion of a piece of work, the teacher assesses the work and uses this information to plan future learning. Feedback on children's learning is given verbally or through marking using the whole school marking code. Next steps for learning are identified and shared with the children to promote progress. Children are encouraged to be reflective learners and identify their own next steps for learning.

Once they complete a whole unit of work, we make a summary judgement of the work of each pupil in relation to the attainment targets. We record the attainment grades on a subject specific record, and we use these to plan future work, to assess progress, and to share information with their next teacher. The subject leader keeps samples of the children's work in a portfolio which shows the expected level of attainment in Design and technology in each year of the school.

## **8. The Foundation Stage**

Design and Technology in the Foundation Stage is an integral part of the continuous provision. We ensure that there is an emphasis on creative work in the nursery and reception class. We relate the creative development of the children to the objectives set out in the Early Years document, which underpin the curriculum planning for children in the foundation stage. We encourage the development of skills, knowledge and understanding that help nursery and reception children make sense of their world as an integral part of the school's work. These underpin the curriculum planning for children aged three to five. This learning forms the foundations for later work in design and technology. These early experiences include asking questions about how things work, investigating and using a variety of construction kits, materials,

about how things work, investigating and using a variety of construction kits, materials, tools and products, developing making skills and handling appropriate tools and construction material safely and with increasing control. We provide a range of experiences that encourage exploration, observation, problem solving, critical thinking and discussion. These activities, indoors and outdoors, attract the children's interest and curiosity.

## **9. Links to Other Curriculum Areas**

### **Cross-Curricular Links**

As we are concerned that children see design and technology as part of their world, we are keen to use positive cross-curricular links. By this we mean that the link furthers the objectives of either design and technology or the subject it is linked with or both. Staff are given freedom to incorporate their design and technology planning into their theme, maths, science, or other subjects.

### **English**

Design and technology contributes to the teaching of English in our school by providing valuable opportunities to reinforce what the children have been doing during their English lessons. The evaluation of products requires children to articulate their ideas and to compare and contrast their views with those of other people. Through discussion, children learn to justify their own views and clarify their design ideas.

### **Maths**

In Design and Technology there are many opportunities for children to apply their mathematical skills through choosing and using appropriate ways of calculating measurements and distances. They learn how to check the results of calculations for reasonableness, and learn how to use an appropriate degree of accuracy for different contexts. Children learn to measure and use equipment correctly. They apply their knowledge of fractions and percentages to describe quantities and calculate proportions. The children will carry out investigations and in doing so they will learn to read and interpret scales, collect and present data, and draw their own conclusions. They will learn about size and shape, and make practical use of their mathematical knowledge, in order to be creative and practical in their designs and modelling.

### **ICT**

We use ICT to support design and technology teaching when appropriate. Design and technology supports children in becoming digitally literate – to use and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world. Children use software to enhance their skills in designing and making, and use the internet to enhance their learning. The children also use ICT to collect information and to present their designs.

### **10. Personal, Social and Health Education (PSHE) and Citizenship**

Design and Technology contributes to the teaching of PSHE and Citizenship. We encourage the children to develop a sense of responsibility in following safe procedures when making things. They also learn about health and healthy diets. Their work encourages them to be responsible and to set targets to meet deadlines, and they also learn, through their understanding of personal hygiene, how to prevent illness and infection from spreading when working with food.

### **11. British Values**

Design and technology contributes to learning about British values because it is a subject for all humanity. Children learn and understand how we shape and model the world and know they can impact it to be a better place for people and other living things. The subject assists individual citizens to make informed choices and contribute to the made world.

### **12. Spiritual, Moral, Social and Cultural Development**

The teaching of design and technology offers opportunities to support the social development of our children through the way we expect them to work with each other in lessons. Our groupings allow children to work together, and give them the chance to discuss their ideas and feelings about their own work and the work of others. Through their collaborative and cooperative work across a range of activities and experiences in design and technology, the children develop respect for the abilities of other children, and a better understanding of themselves. They also develop a respect for the environment, for their own health and safety, and for that of others. Design and technology draws on contributions from all human cultures (around the world or historical) where children consider people in their work, at home and at play solving problems with design and technology. A variety of experiences teaches them to appreciate that all people are equally important, and that the needs of individuals are not the same as the needs of groups. As an eco-school, we consider design and technology to be a useful vehicle for children to consider serious questions about human activity e.g. waste of resources.

### **13. Food Hygiene and Safety Issues**

We enable pupils to have access to the full range of activities involved in learning design and technology. Where children are to participate in activities outside the classroom, for example in a museum or on a factory trip, we carry out a risk assessment prior to the activity, to ensure that the activity is safe and appropriate for all pupils. Teachers teach the safe use of tools and equipment and insist on good practice prior to starting the making part of a task. However, safety issues do arise when teaching this subject. These include:

- ◇ The use of electrical equipment such as glue guns
- ◇ The handling of food stuffs
- ◇ The use of cooking appliances, including ovens and hobs



- ◇ Contact with sharp objects including wood, nails, needles, saws etc.
- ◇ Awareness of personal safety (jewellery, hair, eye protection)

It is the duty of all staff to:

- ◇ Recognise and assess the hazards and risks to themselves and others when working with food and other materials
- ◇ Take action to control these risks and hazards

Teachers should be aware of the following:

- ◇ Children must not use cooking appliances unless under direct supervision from a responsible adult.
- ◇ Saws and other sharp objects (nails, needles, craft knives, etc) must be used under direct supervision. The teacher will make a judgement on the undertaking of activities involving sharp and / or potentially dangerous equipment depending on the age / ability of the children in his / her class. Some activities may be undertaken by an adult or in a small group or one to one situation as appropriate
- ◇ Perishable foodstuff must be stored sensibly and refrigerated if necessary. Care must be taken to ensure food is not used after the given sell by / use by date
- ◇ Teachers and adult support staff must oversee that cupboards, table tops, cooker etc, are clean and in working order
- ◇ Children must wash their hands before and after any contact with food and other potentially harmful substances
- ◇ Teachers must take into account possible food allergies to food such as nuts and should be aware of the location of any medication for the allergy

#### **14. Equality, Diversity and Inclusion**

At Canon Burrows, we aim to ensure that no pupil experiences harassment, less favourable treatment or discrimination within the learning environment because of their age; any disability they may have; their ethnicity, colour or national origin; their gender; their religion or beliefs. We value the diversity of individuals within our school and do not discriminate against children because of 'differences'. We believe that all our children matter and we value their families too. We give our children every opportunity to achieve their best by taking account of our children's range of life experiences when planning for their learning. The planning and organising of teaching strategies for each subject will be consistently reviewed to ensure that no pupil is disadvantaged. This is in line with our Equality Schemes Policy.

## **15. Special Needs Provision / Enrichment and Challenge**

Design and technology is for everyone and so is taught in line with the school's equal opportunity policy. We believe that design and technology is an important aspect of everyone's life now and in the future. As an inclusive school, we recognise the need to tailor our approach to support children with special educational needs, as well as those who are identified as benefiting from further enrichment and challenge.

Design and technology education accounts for children's difference abilities, gender, culture, religion so that it celebrates similarity and difference, ensures access and presents positive images. Design and technology can offer all children an exciting and challenging way to learn. Some children might find access to the subject a challenge because of specific sensory impairment, motor control, cognitive limits, limited personal experience, language or behavioural difficulties or a combination of these. Teachers may refer to the schools special needs policy and SENCO. Some children may need more than the regular range of differentiation in the class.

At our school we teach design and technology to all children, whatever their ability and individual needs. Design and technology implements the school curriculum policy of providing a broad and balanced education to all children. Through our teaching of the subject, we provide learning opportunities that enable all pupils to make good progress. We strive hard to meet the needs of those pupils with special educational needs, those with disabilities, those with special gifts and talents, and those learning English as an additional language, and we take all reasonable steps to achieve this.

## **16. Feedback**

An important product of teacher assessment of design technology is the feedback, both oral and written, given to pupils by their teachers. There are also times when children will be asked to give feedback to one another.

## **17. Monitoring and Evaluation of Standards**

Monitoring and evaluation of standards in design and technology links to the school improvement plan and is the responsibility of the design and technology subject coordinator and the senior management team. Class teachers monitor the achievement of the children through teacher assessment and their own teaching through regular self-review. They also review their teaching of design and technology each term and report any difficulties to the subject lead. This feedback is combined with evidence which the design and technology coordinator gains from visits to classrooms and sampling of children's work, as well as discussions with teachers. Teacher assessment of children's work is seen as a major vehicle for determining the effectiveness of the school's design and technology programme.

## **18. Resources**

We are committed to build up the school's resources for design and technology and these are monitored and updated when appropriate. Specific resources for individual units are ordered as required. More specialised equipment is kept in the design and technology cupboards. As teacher's adapt their design and technology planning to their cross curricular subjects, they may request a variety of resources for their class unit. The subject coordinator is in regular contact with staff each term to remind them of this and to place orders.

## **19. Policy Review**

This policy is a working document and will be reviewed annually by the subject coordinator in line with the School Improvement Plan.

The coordination and planning of the design and technology curriculum are the responsibility of the subject advisor, who also:

- ◇ Supports colleagues in their teaching, by keeping informed about current developments in design and technology and by providing a strategic lead and direction for this subject;
- ◇ Gives the head teacher a school improvement plan in which s/he evaluates the successes and identify areas for development in design and technology;
- ◇ Uses specially allocated time to review evidence of the children's work, display and to observe design and technology lessons across the school.

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