

Curriculum Policy Statement for Design Technology.

Introduction

Design Technology are creative subjects which children instinctively use as a means of expression, to communicate ideas and feelings. The teaching of Design Technology stimulates and encourages creativity and imagination through visual, tactile and sensory experiences. It provides a unique way of understanding and responding to the world and can be used to shape our environment.

While it is essentially a practical subject, art should provide opportunities for reflection and, with increasing sensitivity, pupils should acquire the ability to make informed, critical responses to their own work and that of others.

Design Technology

Intent:

To ensure we have progressively covered the knowledge, understanding and skills required in the National Curriculum. To inspire children through a broad range of practical experiences to create innovative designs which solve real and relevant problems within a variety of different contexts. This iterative process encourages children to identify real and relevant problems, critically evaluate existing products and then take risks and innovate when designing and creating solutions to the problems. Where possible, linking the iterative process to topic based work. As part of the iterative process, time is built in to reflect, evaluate and improve on prototypes using design criteria throughout to support this process. Opportunities are provided for children to evaluate key events and individuals who have helped shape the world, showing the real impact of design and technology on the wider environment and helping to inspire children to become the next generation of innovators.

Implementation:

We follow a broad and balanced Design and Technology curriculum that builds on previous learning and provides both support and challenge for learners. We follow a Design and Technology scheme which ensures progression of skills and covers all aspects of the Design and Technology curriculum.

All classes will have a scheduled Design and Technology lesson each week/all classes will not have a scheduled Design and Technology lesson each week but will be taught Design and Technology alongside other curriculum subjects.

Through revisiting and consolidating skills, our lesson plans and resources help children build on prior knowledge alongside introducing new skills, knowledge and challenge. The revision and introduction of key vocabulary is built into each lesson. This vocabulary is then included in display materials and additional resources to ensure that children are allowed opportunities to repeat and revise this knowledge. Adult guides and accurate design and technology subject knowledge are always provided within lessons to allow the teacher and adults working in those lessons to feel confident and supported with the skills and knowledge that they are teaching.

Impact:

Design and Technology is loved by teachers and pupils across school, therefore encouraging them to want to continue building on this wealth of skills and understanding, now and in the future. Our children enjoy and value Design and Technology and know why they are doing things, not just how. Children will understand and appreciate the value of Design and Technology in the context of their personal wellbeing and the creative and cultural industries and their many career opportunities.

The impact of using a full range of resources, including display materials, will be seen across the school with an increase in the profile of Design and Technology. The learning environment across the school will be more consistent with design and technology technical vocabulary displayed, spoken and used by all learners. Whole-school and parental engagement, including community projects will be improved through the use of design and technology-specific home learning tasks and opportunities suggested in lessons and overviews for wider learning.

Progress in Design and Technology is demonstrated through regularly reviewing and scrutinising children's work, in accordance with our Design and Technology assessment policy to ensure that progression of skills is taking place. Namely through:

Looking at pupils' work, especially over time as they gain skills and knowledge

Observing how they perform in lessons

Talking to them about what they know.

Subject Content:

Early Years Foundation Stage (EYFS)

ELG: Fine Motor Skills Children at the expected level of development will: - Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; - Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing.

Expressive Arts and Design ELG: Creating with Materials Children at the expected level of development will: - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used; - Make use of props and materials when role playing characters in narratives and stories.

Key Stage 1 National Curriculum Expectations

Design

Pupils should be taught to:

- 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, information and communication technology.

Make

Pupils should be taught to:

- select from and use a range of tools and equipment to perform practical tasks [for example, 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.

Evaluate

Pupils should be taught to:

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

Technical Knowledge

Pupils should be taught to:

- build structures, exploring how they can be made stronger, stiffer and more stable;
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and Nutrition

Pupils should be taught to:

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

Key Stage 2 National Curriculum Expectations

Design

Pupils should be taught to:

- use research and develop design criteria to inform the design of 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

Pupils should be taught to:

- select from and use a wider range of tools and equipment to perform practical tasks [for example, 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

Pupils should be taught to:

- investigate and analyse a range of existing products;
- evaluate their ideas and products against their own design 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

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

Cooking and Nutrition

Pupils should be taught to:

- 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.

Progression and Continuity

The school uses a variety of teaching and learning styles in Design Technology lessons. Our principal aim is to develop the children's knowledge, skills and understanding in Design Technology. We ensure that the act of investigating and making includes exploring and developing ideas, evaluating and developing work. We do this through a mixture of direct teaching and individual/ group activities. Teachers draw attention to good examples of individual performance as models for the other children. They encourage children to evaluate their own ideas and methods, and the work of others, to say what they think and feel about them. We give children the opportunity within lessons to work on their own and collaborate with others, on projects in two and three dimensions and on different scales. Children also have the opportunity to use a wide range of materials and resources including other artists' work, educational visits and computing.

We recognise the fact that we have children of differing ability in all our classes, and so we 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 which are differentiated by task, expected outcome and/or support from peers or adults.

Teachers are encouraged to develop skills referring to "Whole School Skills Progression" document for DT which is in line with our chosen DT scheme of work; KAPOW.

Planning

Design Technology is taught through a topic based approach alongside our Creative Curriculum. Our long-term and medium-term plans map out the themes covered each term for each key stage. These plans define what we will teach and ensure an appropriate balance and distribution of work across each term and in accordance to the National Curriculum. The KAPOW scheme is used to provide an exciting and progressive curriculum.

Progress and Achievement

Children are monitored on a regular basis to check progress. We encourage all pupils to take responsibility for their own and their peers learning. A range of Assessment for Learning strategies are used, for example peer marking – the children regularly peer mark and are encouraged to comment on each others work using vocabulary related to the skill taught, evaluation, self assessments, traffic lighting achievement against objectives and success criteria, the use of talk partners and end of unit teacher/pupil evaluation. Through these, both children and adults are able to recognise the progress being made.

Assessment and Recording

At Whitchurch Combined 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. We assess using Sonar twice a year (Jan/June) in order to track children each year.

Monitoring

Each child has an Art/Design sketchbook which serves as a cumulative record of their work and is passed on to the next teacher at the end of each year. Samples of children's work are also collected. Monitoring takes place regularly through sampling children's work, teacher planning and lesson observations/learning walks.

Art and Design Technology Sketchbooks

The National Curriculum emphasises that it is important for the children to gain knowledge and understanding of how artists and craftspeople go about their work. The children need to be exposed to the work of artists and craftspeople, and some of this information can be recorded in their sketchbook. Each child has their own Art and Design sketchbook. This provides a record of the child's learning and progress in art and is used as evidence to show each child's capacity of acquired art skills. Recording in the sketchbook can take many forms and can be used to:

- practise certain skills and features, and to gather information for use on a larger piece of work
- practise drawing techniques such as shading, perspective and drawing from different viewpoints
- record details about the item being drawn or sketched for future reference
- include sketches and working drawings for ideas of things the children want to make
- gather information to give specific knowledge of how things are made or work (There are times where it is more appropriate to record on separate sheets of paper that can be stuck in at a later date.)

The Art and Design sketchbook can be used as a place to collect:

- Photographs;
- Pictures from magazines, comics, cards, calendars, stamps etc;
- Samples of textures, fabrics, and other materials;
- Lists of resources that the children might need to produce a piece of art;
- Colour strips from colour mixing;
- Studies of the effects of media on different types of paper;
- Evaluations by children of their own and the work of other artists

Inclusion

Effective learning opportunities in Art and Design Technology should be provided for all pupils in accordance with these general principles:

- Suitable learning challenges should be set, particularly for those pupils whose attainment significantly falls below - or exceeds - the expected levels at any particular stage;
- Teachers should respond to pupils' diverse needs, and plan their art and design lessons so that all pupils can take part fully and effectively.

Identifying more able pupils

A child who is more able in DT will perform or show the potential for performing at high levels compared with children of the same age. They will usually begin drawing at an early age. Drawing is likely to dominate because of the accessibility of the media and because it can convey more detail. A more able child is likely to, at an earlier age, include more detail in their design work and an ability to use mixed media. They will usually work for longer on a project and will prefer drawing to other

forms of entertainment and will have the drive to work on their own.¹ Children showing G&T will be shown on the G&T provision map.

We aim to showcase and celebrate our children's achievements in art. This may take the form of a whole school DT challenge. The theme is usually based on a real life "problem" to overcome.

Health and Safety

Teachers should ensure that the use of all potentially hazardous resources is strictly supervised. Children should be shown safe procedures for using such resources and should be made aware of the dangers. Pupils should be encouraged to develop confidence and a sense of responsibility for themselves and others. They must learn to understand that their actions directly affect other people's safety, and be encouraged to look for, and react to, potential hazards. Pupils should be trained to work sensibly and safely, and to acquire positive attitudes towards safe practice. Teachers must give a clear lead by their own planning, precepts and personal example. If in doubt, teachers should liaise with the art and design co-ordinator to ensure they are familiar with the safety procedures for using certain resources. Resources which require particular care in use include; lino cutters; spray fixative; glue guns; craft knives and needles.

When using glue guns, irons or other potentially hazardous equipment or materials, the teacher should set up a 'zone'. Children will be warned that the zone is being set up and warned that they are not allowed into the area unless they are accompanied by a member of staff. Children should then, if appropriate, be supervised when using glue guns etc. Staff should use their judgement when giving children the responsibility of using this equipment.

The Role of the Design Technology Co-ordinator

The role of the co-ordinator is to:

- Seek to enthuse pupils and staff about Art and Design Technology and to promote high achievement;
- To ensure that the intent and implementation of Art across the school is closely monitored and to review its impact.
- Advise and support staff in the planning, delivery and assessment of Art and Design Technology;
- Offer specialist advice and knowledge for special needs and more able pupils or be able to signpost staff towards more specialist advice;
- Monitor and evaluate the standards of children's work and the quality of teaching in art and design throughout the school;
- Undertake learning of Art and Design Technology teaching across the school;
- Keep up to date with current developments by attending courses and disseminate this information to staff through inset and informal conferencing;
- Purchase, organise and maintain teaching resources;
- Manage a delegated budget and keep spending within it;
- Advise the Head teacher of any action required (eg. resources, standards) and keep them informed of strengths and weaknesses in the subject, indicating areas for further improvement;

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Design Technology Coordinator: Emma Lawson