

Danson Primary School



Design & Technology Policy

Nurture-Believe-Inspire Achieve

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Aim:

Here at Danson Primary School the subject of Design and Technology challenges children to consider their own and other's needs, wants and values. Children develop the knowledge and skills to solve real and relevant problems within a variety of contexts. In addition to this, the subject also encourages creative thinking, problem solving, self-reflection, resourcefulness and resilience

Through the teaching of Design & Technology, children at Danson Primary School develop their fine motor skills whilst becoming more independent learners who are able to express and explore their own thoughts and ideas. They reflect on and evaluate present and past design and technology regarding its uses, the impact on society and then propose their own opinions about how they can develop this technology further.

The subject of Design & Technology prepares children to participate and thrive in a rapidly changing world through the development of transferable skills that they can use throughout their lives. The subject gives children the skills so that when they leave primary school they will have access to a wide-range of skills that will equip them to become innovative, resourceful and proficient.

Objectives:

- To develop the skills, knowledge and understanding in order to design and make a product for a wide range of purposes.
- To encourage children to talk about how different products and processes work and discuss any advantages or disadvantages that these may have.
- To enable children to select appropriate tools and techniques for making a product, whilst following safety procedures.
- To facilitate children to critique, evaluate and test their own and other's products.
- To strengthen children's understanding of technological processes, products, their manufacture, and their contribution to our society.
- To help children to understand and apply the principles of nutrition and inspire them to explore cooking.
- To foster enjoyment, satisfaction and purpose in the designing and making process.

Planning:

Here at Danson Primary School, we use the Kapow Design & Technology Scheme of work as a vehicle in order to teach the objectives from the National Curriculum. We have used this scheme and made it bespoke to the children here at Danson Primary School, and where possible linked the knowledge and skills for each of the Design and Technology units to the humanities unit for each year group. A broad range of skills are taught throughout the year groups which allow progression of skills and knowledge to be built upon over time.

Progression:

Progression in Design Technology has been carefully planned into the curriculum for this subject here at Danson Primary School using the Kapow Design and Technology Scheme as a vehicle alongside the National Curriculum objectives. When teaching the subject of Design and Technology, there is a clear focus on the following strands:

- Design
- Make
- Evaluate
- Technical Knowledge

The objectives from the National Curriculum strands are below:

Design and technology in the Early Years at Danson Primary School

At Danson Primary School we are big advocates of encouraging and developing DT skills in the Early Years through a mixture of adult led sessions and child initiated play. Our rich indoor and outdoor environments provide our children with a wide variety of opportunities for open ended DT projects, such as junk modelling, small-scale indoor construction, large-scale outdoor construction, malleable materials, water play and play. Children are taught how to safely (and independently) use a variety of skills throughout the year and these skills are built upon in Year 1.

Physical development:

- Progress towards a more fluent style of moving, with developing control and grace.
- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.
- Use a range of small tools, including scissors, paintbrushes and cutlery (ELG Fine Motor Skills).

Expressive Art and Design:

- Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Return to and build on their previous learning, refining ideas and developing their ability to represent them.

- Create collaboratively, sharing ideas, resources and skills
- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function (ELG - Creating with Materials).
- Share their creations, explaining the process they have used (ELG - Creating with Materials).

Key Stage 1:

Design:

- Children are to design purposeful, functional, appealing products for themselves and other users based on design criteria
- Children are to generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

Make:

- Children are to select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]
- Children are to select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate:

- Children are to explore and evaluate a range of existing products
- Children are to evaluate their ideas and products against design criteria

Technical knowledge:

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

Key Stage 2:

Design:

- Children are 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
- Children are to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design

Make:

- Children to select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately
- Children are to 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:

- Children are to investigate and analyse a range of existing products
- Children are to evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
- Children to understand how key events and individuals in design and technology have helped shape the world

Technical knowledge:

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

Cooking and nutrition:

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

Key stage 1:

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

Key stage 2:

- Children are to understand and apply the principles of a healthy and varied diet.
- Children are to prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Children are to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

These strands from the National Curriculum are then interwoven into the six key areas that children will learn about at Danson Primary School:

- Cooking & Nutrition
- Mechanisms & Mechanical Systems
- Structures
- Textiles
- Electrical Systems (KS2)
- Digital World (KS2)

Design & Technology Resources:

- Wood
- Glue
- Glue gun
- Lolly sticks
- Cardboard
- Coloured paper
- Split pens
- Saws
- Micro bits
- Chromebook

Health & Safety:

Health and safety is important, particularly when working with tools, equipment and resources. Children should be given suitable instruction on the operation of all equipment before being allowed to work with it.

Children need to be taught how to:

- Use tools and equipment correctly.
- Recognise hazards and risk control.

Children should:

- Be strictly supervised in their use of equipment at all times.
- Be taught to respect the equipment they are using and to keep it stored safely while not in use.
- Be taught to recognise and consider hazards and risks and to take action to control these risks, having followed simple instructions.

Food Hygiene

- Pupils and staff will take care to undertake appropriate hand washing and other hygiene related activities prior to preparing food.
- Pupils and staff working with food must wear aprons designated for cooking.
- All jewellery should be removed and hair tied back.

Recording and Assessment:

All children within the school record in sketchbooks during their Design and Technology Lessons which provides a record of their work. At the end of each term summative and formative assessment is inputted into the school's assessment system and monitored by the Design and Technology Subject Leader.

Policy Owner	Design and Technology Subject Leader
Approver	Deputy Head Teacher and Head Teacher
Date Approved	February 2024
Next Review	February 2025