



Together we enjoy, create and achieve

Caversham Park Primary School

Design and Technology

At Caversham Park Primary School we value Design and Technology. We are DESIGNERS! We believe that our design and technology lessons will engage, inspire and challenge all children to think innovatively and develop their understanding of design in a wider world view. Our design and technology curriculum is a knowledge rich curriculum. Knowledge not only of designers, engineers, textile designers and chefs but of the design and technological concepts that relate to their work. This will impact the children's use of materials and skills as they are able to use their knowledge in a world context rather than limited to their classroom experience.

The study of design and technology at primary school will allow children to develop their creative and practical skills and knowledge. Pupils will gain a comprehensive range of techniques which are sequentially built upon, to enable them to create items using in a wide range of materials and to prepare dishes using a range of food sources and cooking skills. Using the three elements of construction, textiles and food each pupil is given the opportunity to experiment and to hone their control, whilst encouraging creativity. At Caversham Park we believe that design and technology should be accessible to all children and as such the curriculum is designed so that teachers can scaffold the learning to suit the individual child. All children have access to a full curriculum and have the opportunities to Enjoy, Create and Achieve!

Curriculum Intent

At Caversham Park Primary we believe that children should learn and master techniques that allow them to design, make and evaluate their own end product. This techniques will include cooking, construction and textiles, using a range of materials. Pupils will learn about famous designers and designs and be able to evaluate their work before designing and making their own product. Pupils will also design products that meet specific design criteria including a product that has a specific need. Our design curriculum focuses on a building upon the pupils' knowledge from the previous year so that they can apply previous knowledge and new knowledge to their products. Each design unit will start with evaluating an existing product, a range of skills-based lessons relevant to that unit, designing their product, making their product and finally evaluating their own product. One such examples is in Year 2, children will evaluate an existing decoration, before two lessons focusing on specific sewing and cutting skills, they will then design their decoration, before using their sewing skills to make it and finally evaluate their own design. Our curriculum has been designed to include a range of items to design and make including sewing decorations, pencils cases, and bags. Pupils will also be able to construct moving cars, moving pictures and light up signs. Pupils will also be able to cook, a Greek Mezze, afternoon tea and a Come Dine with Me style dish, with the sim of inviting parents and carers to share in the pupils cooking skills. We encourage pupils to enjoy making, cooking and sewing with the aim of encouraging creativity and problem solving, because at Caversham Park Primary School we are DESIGNERS!

Curriculum Implementation

Pupils experience three alternate half-terms of design each year, this allows them sufficient time to become fluent in their design knowledge and skills. This will also allow pupils the time to create their product that encompass all the skills they have acquired over the previous lessons and the chance to evaluate their work. The design and technology curriculum at Caversham Park Primary is taught through the structure of evaluating existing items, learning new knowledge and skills, before moving on to designing, making, and evaluating their own product. Pupils will have access to a range of textile items, including felt sewing, adding zips and including

draw strings. In construction pupils will have access to using wood, electrical items and specific mechanisms to make their item move. In food technology pupils will talk about health and nutrition as well as cooking skills enabling them to design and make their own dishes or food items. Children will be exposed to various products either by handling them themselves, observing them through images and virtual design spaces and looking for some products around the school. Wherever possible we have made links to other areas of the curriculum, with our year 4 children using their electrical knowledge from science and enabling them to create light up boxes, combining both their scientific and design knowledge. Our year 1 pupils get to link their knowledge of biscuits from their history unit to making their own biscuits. The curriculum has been designed that textiles, construction and food knowledge is built upon each year with the units allowing for 'sticky knowledge' revisits at the start of each lesson. Pupils are also reminded of the skills they will have learnt in previous years to ensure knowledge and skills continue to grow progressively throughout their time at Caversham Park Primary School. We encourage pupils to experiment with their design and what tools they can use. We at Caversham Park Primary school believe all our pupils are DESIGNERS.

Curriculum Impact

The impact of this curriculum design will lead to individualised progress over time across key stages relative to a child's individual starting point and their progression of skills. Children will therefore be expected to leave Caversham Park Primary reaching at least age-related expectations for Design and Technology. Our Design and Technology curriculum will also lead pupils to be enthusiastic Design and Technology learners, evidenced in a range of ways, including pupil voice, their final pieces and their design sketchbooks. We ensure that children who are achieving well, as well as those who need additional support, are identified, and additional provision and strategies are planned. Achievements are celebrated in classrooms during walking-galleries, displays, inviting members of the school community and other classes to share in our pupils success.

EYFS and Design:

At Caversham Park Primary School we believe that art is to be explored and enjoyed as soon as children join in our EYFS class. By the end of EYFS children will be able to:

- Name basic safety measures when using equipment, for examples goggles, and how to hold scissors carefully
- begin to use simple tools for cutting, including scissors and knives.
- Begin to use simple tools for joining, including glue, tape and nails.
- Begin to build and edit structures, including using blocks, wood and other objects.
- Begin to name simple tools including scissors, glue, knife, tape
- Begin to name fruits and vegetables
- Begin to name simple tools for food including, knife, fork, cutting board.
- Begin to name some basic food items including meat, bread and pasta.

By the end of Key Stage One children will be able to:

Design

- 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

- select from and use a range of tools and equipment to perform practical tasks:
 - cutting

- shaping
- joining
- finishing
- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

Evaluate

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

Technical knowledge

- 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

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

By the end of Key Stage Two children will be able to:

Design

- 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

- select from and use a wider range of tools and equipment to perform practical tasks accurately:
 - cutting
 - shaping
 - joining
 - finishing
- 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

- 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
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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

- 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.

At Caversham Park Primary School, we aim to allow our children to continue their design and technology journey into Key Stage Three by:

- using design equipment to make structures, textiles items and food dishes
- Have basic skills in construction, food and textiles.
- Have knowledge of how to design, make and evaluate their own design.

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