



Design & Technology POLICY/PROCEDURE

Bramley Park Academy is committed to safeguarding and promoting the well-being of all children and expects our staff and volunteers to share this commitment.

Policy reviewed by: K Warbrick
Date: September 2024
Review Date: September 2026

DT Policy

Introduction

This is a statement of the aims, principles and strategies for the teaching and learning of Design and Technology at Bramley Park Academy.

The importance of Design Technology

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable young people. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of our community and the wider world.

Our Vision

Every pupil is entitled to become a confident and competent user of design and technology and every learner has the opportunity to develop and practice their design and technology skills.

Aims

All children will be given the opportunity to:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook.

Inclusion

All learning opportunities will respond to an individual child's needs. A flexible approach will allow for those who are working below the expected ability of the class and for those that require SEND support. Children who are deemed to be achieving beyond the class standard will be set suitable challenges.

Hygiene, Health and Safety

Because children may be using tools and materials that could possibly present a hazard if used incorrectly, children will be taught to use the correct methods and will be encouraged to recognise the risks involved. Teachers will promote these in order to ensure the health and safety of their pupils. Children will also be taught the necessity of looking after equipment, by using it correctly and keeping it clean and tidy

Resources

The Design and Technology Subject Leader is responsible for discussing resource needs with teachers.

Teaching and Learning

Key Stage 1

DT in KS1 will be taught as part of the topic based curriculum, with links to other subjects. KS1 children will be taught

- Design: to design functional and attractive products to appeal not only to themselves, but also to other identified users.
- Make: to select and use a range of tools and materials.
- Evaluate: to evaluate their own designs against the design criteria and to evaluate existing products.
- Technical Knowledge: to build structures, exploring how they can be made stronger, stiffer and more stable and explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
- Cooking and nutrition: to understand where food comes from and the basic principles of a healthy and varied diet. To design and prepare dishes based on this knowledge.

Key Stage 2

It is intended that work of Key Stage 2 will build on, and develop the skills learned in Key Stage 1. Children will be taught the skills and knowledge needed to successfully design and make and evaluate their work

- Design: to carry out research of existing products. To develop design criteria in order to produce a product which is fit for purpose and aimed at a specific group of people.
- Make: to select and use a range of tools and materials, taking into account their product's functional and aesthetic qualities.
- Evaluate: to evaluate existing products, their own work and the work of others in order to improve their design. To have an understanding of how designers and their products have helped to shape the world.
- Technical Knowledge: to apply their understanding of how to strengthen, stiffen and reinforce more complex structures, understand and use mechanical systems in their products, understand and use electrical systems in their products and apply their understanding of computing to program, monitor and control their products.
- Cooking and nutrition: to have an understanding of the seasonal nature of foods, and where and how it is produced. To understand what it means to have a healthy diet. To cook and prepare a range of predominantly savoury foods using a range of techniques.

Assessment and Recording

Children will be assessed after relevant topics which change on a half termly basis against the Design and Technology essential outcomes and objectives from the national curriculum.

Monitoring and Reporting

The Design and Technology Subject Leader will be responsible for the monitoring and evaluation of Design and Technology planning, teaching and work throughout the school and reviewing this policy. The Design and Technology Subject Leader will carry out termly monitoring which will include:

- interviewing children to discover their perceptions of the subject.
- work/planning sampling and scrutiny to ensure coverage and progression throughout the school,
- a climate walk to check the regularity and impact of the displays for the subject. The Design and Technology Subject Leader will feed back to staff findings from monitoring and advise them on good practice/areas for development.


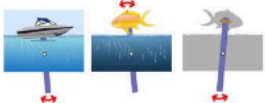

Display




A range of DT work and photographs of work will be displayed around school.




The purpose of display is to:


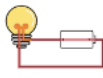

- value work, especially if the work is put up by or with the child present;
- provide a stimulating and interesting working atmosphere, where Design and Technology is valued;
- show good presentation and a standard to aim for;
- motivate children;
- promote self esteem and boost confidence;
- give information around a topic;
- give a point of reference;
- set agendas and ethos of teacher requirements, and
- make a pleasant environment to work in.


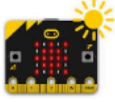

Long term Plan at BPA:



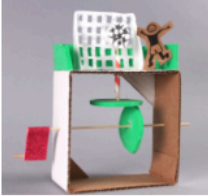
<i>KS1 - Cycle 1</i>		
<i>Autumn</i>	<i>Spring</i>	<i>Summer</i>
<i>Food</i>	<i>Mechanical Systems</i>	<i>Textiles</i>
<i>Eat Well Guide</i> <i>Fruit salad</i>	<i>Making a moving picture</i> <i>Sliders and levers</i>	<i>Puppets</i> <i>Templates and joining techniques.</i>
		
<i>Product: A fruit salad</i> <i>User: Themselves and/or family</i> <i>Purpose: To have a healthy pudding</i>	<i>Product: making a moving picture</i> <i>User: for reception/younger child</i> <i>Purpose: To tell a story</i>	<i>Product: making hand puppet</i> <i>User: for friends and family</i> <i>Purpose: To go into a story sack</i>
National Curriculum Cooking and nutrition <ul style="list-style-type: none"> • Use the basic principles of a healthy and varied diet to prepare dishes • Understand where food comes from. 	National Curriculum Design <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • explore and evaluate a range of existing products evaluate their ideas and products against design criteria Technical Knowledge <ul style="list-style-type: none"> • explore and use mechanisms [for example, levers, sliders, wheels and axes], in their products. 	National Curriculum Design <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • explore and evaluate a range of existing products evaluate their ideas and products against design criteria

KS1 - Cycle 2		
Autumn	Spring	Summer
Structures	Wheels/mechanisms	Food
Construction London bridges	Make a car	Balanced diet Summer picnic- couscous?
		
<i>Product: make a London Landmark (Tower Bridge)</i> <i>User: For characters to cross</i> <i>Purpose: For safe travel from one side to another</i>	<i>Product: create a moving car</i> <i>User: younger child</i> <i>Purpose: To play with</i>	<i>Product: create a summer picnic</i> <i>User: Themselves</i> <i>Purpose: To eat and enjoy</i>
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LKS2 - Cycle 1		
Autumn	Spring	Summer 2
Food	Textiles	Mechanical Systems
Make simple flat bread	Pop Art cushion- design on CAD, Paint on cushion 2D to 3D- stitch up sides	Construction of a moving picture/story/ card - Levers and linkages
		
<i>Product: create a flat bread</i> <i>User: themselves</i> <i>Purpose: To eat and enjoy</i>	<i>Product: To create a Pop Art cushion</i> <i>User: Gift for Family Member</i> <i>Purpose: To have an attractive but comfortable cushion</i>	<i>Product: To make a moving Picture</i> <i>User: KS1</i> <i>Purpose: To able to retell a story</i>
National Curriculum Cooking and nutrition <ul style="list-style-type: none"> 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. 	National Curriculum Design <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate <ul style="list-style-type: none"> 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 	National Curriculum Design <ul style="list-style-type: none"> 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 Make <ul style="list-style-type: none"> 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 <ul style="list-style-type: none"> 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 Technical knowledge <ul style="list-style-type: none"> 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]

LKS2 - Cycle 2		
Autumn	Spring	Summer
Food	Electrical Systems	Structures
<i>Eating Seasonally Vegetable soup</i>	<i>Design a product that uses a light/torch.</i>	<i>Shall structure - Nets</i>
		
<p><i>Product: Vegetable soup</i> <i>User: Themselves and/or Teachers in school</i> <i>Purpose: To make a healthy vegetable soup for others to enjoy</i></p>	<p><i>Product: To make a torch</i> <i>User: For LKS2 children</i> <i>Purpose: For the children to take on residential trip to see in the dark</i></p>	<p><i>Product: To create a box for the Summer fair (chocolates insides)</i> <i>User: Customers</i> <i>Purpose: To store and hold chocolates</i></p>
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UKS2 - Cycle 1		
Autumn	Spring	Summer 2
Structures	Electrical system	Food
<i>Design and create an Anderson - Structures - Frame structures</i>	<i>Sensors and timers - Micro:bit - security light or night light</i>	<i>Dietary considerations - Making Pizza - Pizza sauce</i>
		
<i>Product: To create prototype of an anderson shelter</i> <i>User: General public</i> <i>Purpose: Protection from outside elements</i>	<i>Product: To create a security or night light with a motion sensory</i> <i>User: Maintenance Team at school</i> <i>Purpose: For a light to come on from motion</i>	<i>Product: To make a pizza sauce topping</i> <i>User: Themselves</i> <i>Purpose: To eat and enjoy</i>
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UKS2 - Cycle 2		
Autumn	Spring	Summer
Food	Textiles	Mechanical systems
<i>Food alternatives - Burrito</i>	<i>Upcycling - Smart materials - Pencil cases</i>	<i>Cardboard box design - Pulleys gears and CAMs</i>
		
<i>Product: To make and create a Burrito that considered dietary requirements</i> <i>User: The public</i> <i>Purpose: To eat and enjoy</i>	<i>Product: To upcycle materials to create a pencil case</i> <i>User: Themselves (table buddy)</i> <i>Purpose: To store and keep stationary equipment all in one place</i>	<i>Product: To create a Toy with a mechanical system (automater)</i> <i>User: For Public</i> <i>Purpose: To entertain and then sell at the Summer Fair</i>
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