



Design and
Technology
Curriculum
2019-2020

Intent

At Bushbury Lane Academy, we aim to provide all children with a broad and balanced curriculum which prepares them for life beyond primary education. We encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Design and Technology is an inspiring, rigorous and practical subject. It can be found in many of the objects children use each day and is a part of children's immediate experiences. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team.

At Bushbury Lane, the Design and Technology curriculum combines skills, knowledge, concepts and values to enable children to tackle real problems. It can improve analysis, problem solving, practical capability and evaluation skills. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are encouraged to become innovators and risk-takers. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

At Bushbury Lane, the curriculum for design and technology aims to ensure that all pupils:

- 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.

Implementation

Teachers are provided with support to plan their curriculum through our school's CPD offer, inset days, staff meetings and working alongside outside education providers e.g. Wolverhampton education team and University.

As part of this planning process, teachers need to plan the following:

- A sequence of learning which includes a key question, brilliant beginning, skills and knowledge, vocabulary and a fantastic finish;
- The sequence of lessons for each subject, should have careful planning for progression and depth;
- Trips and visiting experts who will enhance the learning experience;
- A means to display and celebrate the pupils' work in their class and finally a way to share their learning with parents and the local community.

Design and Technology curriculum to be taught at Bushbury Lane Academy

| | Year 1 | Year 2 |
|---|--------|--------|
| 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. | | |
| Select from and use a range of tools and equipment to perform practical tasks such as 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. | | |
| Explore and evaluate a range of existing products. | | |
| Evaluate their ideas and products against design criteria. | | |
| Build structures, exploring how they can be made stronger, stiffer and more stable. | | |
| Explore and use mechanisms, such as levers, sliders, wheels and axles, in their products. | | |

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| Use the basic principles of a healthy and varied diet to prepare dishes. | | |
| Understand where food comes from. | | |

| | Year 3 | Year 4 | Year 5 | Year 6 |
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| 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. | | | | |
| Select from and use a wider range of tools and equipment to perform practical tasks, such as 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. | | | | |
| 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 | | | | |
| Apply their understanding of how to strengthen, stiffen and reinforce more complex structures. | | | | |
| Understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages. | | | | |
| Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors. | | | | |
| Apply their understanding of computing to programme, monitor and control their products. | | | | |
| Understand and apply the principles of a healthy and varied diet. | | | | |

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| 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. | | | | |

Impact

Our Design and Technology curriculum is high quality, well thought out and is planned to demonstrate progression. If children are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through the following methods:

- A reflection on standards achieved against the planned outcomes;
- A celebration of learning for each term which demonstrates progression across the school;
- Pupil discussions about their learning; which includes discussion of their thoughts, ideas, processing and evaluations of work.