



Design and Technology Policy

Rationale

Design Technology encourages creativity, originality and individuality. At Bramhope lessons engage, inspire and challenge pupils. Children are also given opportunities to discuss, share and respect opinions, reflect upon and evaluate their design products.

- At Bramhope, we aim to provide visual, tactile and sensory experiences, and a special way of understanding and responding to challenges in D&T. When possible, we inspire children through studying artists and sculptors such as Andy Goldsworthy and Barbara Hepworth and creating patterns and sculptures out of natural materials found in our environment and other mediums such as clay, plasticine and modroc. We study textiles through looking at the life and works of artists such as El Anatsui. At Bramhope we encourage children to become involved in shaping their environments through design activities. Children are taught to make informed judgements, and make aesthetic and practical decisions. They explore ideas and meanings through the work of designers. Through learning about the roles and functions of design and technology, they can explore the impact it has on contemporary life and on different periods and cultures. We are sensitive to children's religious beliefs and physical needs and modify tasks accordingly.

Organisation of Content

Design and Technology is taught by our subject curriculum coordinator who teaches across key stage one and key stage two. All children receive at least one project per term. We believe that Design and Technology provides many natural opportunities for the children to apply and practise a number of skills used in other areas of the curriculum. For example:

- Speaking and listening skills
- Communication skills
- Mathematical skills
- Creative problem solving
- Skills from art and design

Long term Plans may provide an opportunity to focus on a project, for example, designing a home for the "Hedgehog" and building bridges in KS1, however if this is not appropriate D&T will be taught as a standalone subject.

Reception:

Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

At Key Stage 1:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home and school, gardens and playgrounds, the local community).

Pupils should be taught:

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 (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.

Explore

- Explore/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.

At Key Stage 2:

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture and the environment).

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 (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

- 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

As part of their work with food, pupils are 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. Each child in year two hold a Harrisons Passport.

Children in EYFS learn the basic skills when baking and how to stay safe in the kitchen:

- How to hold and use a knife safely
- Using the oven under adult supervision
- Talking about food
- Why we keep things in the fridge
- Hot surfaces and hot water
- The importance of washing our hands and washing up

Pupils are taught to:

Key stage 1:

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

Key stage 2:

- 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.

Assessment of content

Assessment is in the form of regular and ongoing discussion and time is given every lesson for pupils to reflect upon successes, challenges and next steps. Weekly meta-cognitive questioning is also used to help children with this reflective process. This two-way discussion is used to inform and plan future lessons. Class DT sketchbooks provide a record of progression as the children move through the school. Throughout their time at Bramhope, children discuss how they feel about their own work, and the methods and approaches used by others. We provide opportunities to build links with our community and meet and talk with talented adults from our community, for example, building links with the W.I to create bunting for the "Tour de Yorkshire".

Accountability

D&T is taught by our subject curriculum coordinator who teaches across both key stages, enabling consistency and progression in activities through each year group. On occasions, topics relating to key artists may allow children to work together to produce a whole school or key stage piece of work.

The teacher observes and supports through modelling techniques and encouraging critical thinking. Children are encouraged to analyse and improve work. Children are also given opportunities to share work produced at home.

Teaching strategies employed

We believe that DT provides many natural opportunities for the children to apply and practise a number of skills used in other areas of the curriculum. For example:

- **Speaking and listening skills:** through discussion and self/peer evaluation.
- **Communication skills:** discussing designs and forming opinions of works.
- **Mathematical skills:** measuring and weights in our project on axles, gears and pulleys.
- **Creative problem solving:** through sharing ideas on how to tackle a piece of work.
- **P.S.H.E:** discussion, collaboration and celebration of work.
- **Science:** movements of the human body in sculpture and fair testing.
- **I.C.T:** research and digital photography.

Provision for all children

Teachers ensure that all children, whatever their ability or background, have access to the range of D&T activities and use opportunities within D&T. to challenge stereotypes. Children are encouraged and supported to develop their D&T. capability using a range of materials and learning how to handle resources safely.

Inclusion

We have carefully considered and analysed the impact of this policy on equality and the possible implications for pupils with protected characteristics, as part of our commitment to meet the Public Sector Equality Duty (PSED) requirement to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations. We are sensitive to children's religious beliefs and physical needs and modify tasks accordingly.

Health and Safety

The general teaching for health and safety applies in this subject.

- Children learn the proper procedure for handling and using equipment as well as a wide range of materials.
- Where children participate in activities outside the classroom, we carry out a risk assessment beforehand, to ensure that the activity is safe and appropriate for all pupils.
- Food technology: school maintains records of all children with allergies and parental permission is requested prior to handling food. The school has a kitchen risk assessment.

The curriculum leader is a member of the D&T association.

Teachers can refer to Projects on a Page document folder which highlights safe practice when using tools / materials and equipment in KS1 and KS2 (can be found in the staff area - DT folder).