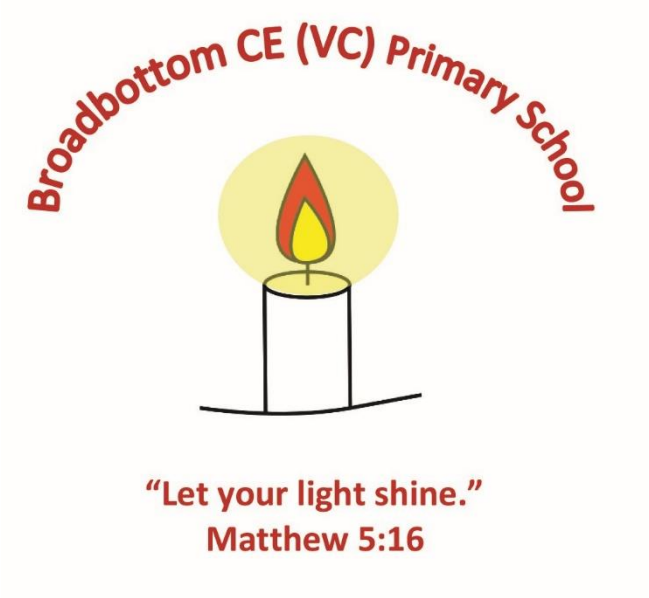
Broadbottom C of E Primary School



Design Technology

November 2022

Signed .....

Date.....

Intent

At Broadbottom we encourage our children to be reflective and resilient learners. Design Technology helps us to develop these attributes as we work through the design process. The Design and Technology curriculum, based around The Dimensions Curriculum – Learning Means the World, is taught through thematic units that encourage our children to work collaboratively to solve problems and find solutions, teach them to deal with uncertainty whilst developing communication, organisational and other practical life skills. In our design technology sessions, we learn to appreciate the needs of others, the built environment around us and the likely impact of future technologies.

Implementation

Dimensions Curriculum

The Dimensions Curriculum schemes of work are topic based and used throughout school. Themes are taught through a combination of subject knowledge, skill building and design and make projects. Food technology is also taught through thematic units and our 3D PSHE programme.

National curriculum requirements

KS1

When designing and making, pupils should be taught to:

Design

- design purposeful, functional appealing products for themselves and others 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

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

KS2

When designing and making, pupils should be taught 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 range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately
- select from and use a wide 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 help 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

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of predominately 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

Children will have the confidence and ability to design, make and evaluate products based on given, and researched, criteria. We aim for children to build an interest and enjoyment around design technology, which will set them up for future learning in school and throughout life.