

Design and Technology at Hopton

Intent

At Hopton we aim to deliver inspiring, practical and engaging Design and Technology lessons that build upon children's prior experience and knowledge of the subject. Through this subject, children will have opportunities to be creative, learn to think critically and problem solve. In line with our school vision of 'With God All Things are Possible' (Matthew 19 v 26) they will develop aspirations by aspiring to their inner designer be imaginative, innovative and reflective. The children will be guided through an iterative process of designing, making and evaluating products. The children will learn about real world products and the design process. They will work with a range of materials and tools and learn the technical knowledge required to improve their products. They will also learn cookery skills and about food.



“Design is not just what it looks like and feels like. design is how it works.”

Steve Jobs

Implementation

Assessments will be made through conversations with the pupil, observations in lesson, evaluation of their products and work and making use of pupil 'Can I?' questions to ascertain what they have learned.

We follow the National Curriculum aims (listed below) for Design and Technology. In order to achieve these the children will follow a Design, Make, Evaluate process.

The subject is monitored through staff and pupil voice, book looks, monitoring of planning and dedicated subject staff meetings.

We keep our school's curriculum drivers (Play, Wonder, Insight, Risk, Voice and Experience) in mind when planning DT, to ensure projects have real world experiences and the pupil's voice at the heart of lessons.

In Key Stage One the children will:

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,

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.



In Key Stage Two the children will build upon the skills from the previous Key Stage and in addition will progress by covering the additional knowledge and skills outlined below for each area:

Design

- *Pupils will make use of* research when developing design criteria to inform their designs and consider the products purpose and target audience.
- *Pupils should produce more detailed design* by producing annotated sketches, exploded diagrams, prototypes, pattern pieces and computer-aided design.

Make

When making products in Key Stage Two the making process should focus upon accuracy.

- Pupils should give consideration when selecting materials and components, to their functional properties and aesthetic qualities.

Evaluate

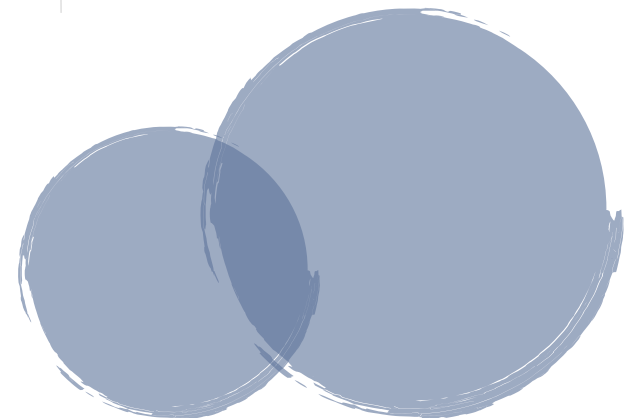
- When evaluating pupils should consider the views of others to improve their work;
- Consider the wider world context by understanding how key events and individuals in design and technology have helped shape the world.

Technical Knowledge

- When applying their knowledge of how to strengthen, stiffen and reinforce they should work with more complex structures;
- understand and use mechanical systems in their products: gears, pulleys, cams, levers and linkages;
- understand and use electrical systems in their products: series circuits incorporating switches, bulbs, buzzers and motors;
- apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

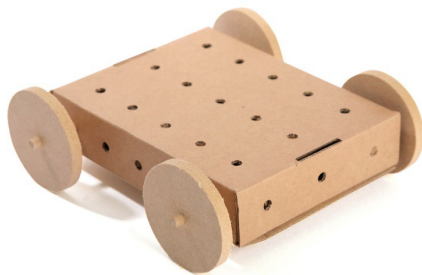
- apply the principles of a healthy and varied diet;
- prepare and cook a variety of mostly savoury dishes using a range of cooking techniques;
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught, processed.





Impact

- Children develop first hand practical design skills and gain technical knowledge.
- Children engage in fun, real world relevant design and technology projects.
- Children gain understanding into the design process behind making prototypes and products.
- Children gain the life skills of understanding a healthy diet and food preparation.
- Children find their role within a creative and entrepreneurial society.



“Creativity is allowing yourself to make mistakes.

Design is knowing which ones to keep.”

Scott Adams

