



Design & Technology Journey at Heath Hayes Academy



EYFS

Expressive Arts & Design

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

Share their creations, explaining the process they have used.

Make use of props and materials when role playing characters in narratives and stories.

Year 1

Understand where food comes from.

Build structures, exploring how they can be made stronger, stiffer and more stable.

Explore and evaluate a range of existing products.

Select from and use materials and components according to their characteristics (construction materials).

Select and use a tools and equipment (cutting & shaping).

Generate and model through talking, drawing, templates.

Design purposeful, functional, appealing products for themselves.

Year 2

Design purposeful, functional, appealing products for others.

Generate, develop, model and communicate ideas using mock-ups.

Use ICT to design.

Select and use tools and equipment (cutting, shaping, joining & finishing).

Select and use materials and components according to their characteristics (construction & textiles).

Evaluate their ideas and products against design criteria.

Explore and use mechanisms in products.

Use the basic principles of a healthy and varied diet to prepare dishes.

Year 3

Prepare and cook a variety of savoury dishes.

Understand and apply the principles of a healthy and varied diet.

Evaluate ideas and products against their own design criteria.

Investigate an existing product.

Select and use materials according to their functional properties and aesthetic qualities (construction materials).

Select and use tools to perform practical tasks accurately (cuttings, shaping, joining and finishing).

Develop and model ideas (annotated sketches & prototypes).

Generate ideas through discussion.

Develop design criteria for functional products which are fit for purpose.

Use research to inform design of products.

Year 4

Develop design criteria to inform the design of innovative products.

Communicate ideas through discussion.

Develop and model ideas (cross sectional or exploded diagrams).

Select and use tools to perform practical tasks accurately (cutting, shaping, joining and finishing).

Select and use materials according to their functional properties and aesthetic qualities (construction & textiles).

Analyse an existing product.

Understand how key events in design and technology have helped shape the world.

Apply their understanding of how to strengthen, stiffen and reinforce complex structures.

Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Year 5

Use a range of cooking techniques.

Apply the principles of a healthy and varied diet.

Understand and use mechanical systems.

Evaluate against own design criteria.

Investigate and analyse a few of existing products.

Select and use materials according to their functional properties and aesthetic qualities (construction and textiles).

Select and use tools to perform practical tasks (cutting, shaping, joining and finishing).

Generate, develop, model and communicate through: discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes.

Develop innovative, functional, appealing products that are fit for purpose.

Use research to inform design of products.

FINISH

Year 6

Understand seasonality.

Develop innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.

Generate, develop, model and communicate through: discussion, pattern pieces, computer-aided design.

Select and use tools to perform practical tasks accurately (cutting, shaping, joining and finishing).

Select and use materials according to their functional properties and aesthetic qualities (construction & textiles).

Investigate and analyse a range of existing products.

Evaluate the views of others to improve their work.

Understand how key individuals in D&T have helped shape the world.

Apply understanding of computing to program, monitor and control their products.

Use a range of cooking techniques.

Know where and how a variety of ingredients are grown, reared, caught and processed.