DT – EYFS Content Breadth and Progression

Our DT curriculum is taught within EYFS topics, as part of the daily continuous provision and during adult enhanced activities.

Three and Four Year Olds

Expressive Art & Design

- Make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.
- Explore different materials freely, in order to develop their ideas about how to use them and what to make.
- Develop their own ideas and then decide which materials to use to express them.
- Create closed shapes with continuous lines, and begin to use these shapes to represent objects.

Reception

Physical Development

- Make Progress towards a more fluent style of moving, with developing control and grace.
- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor.

Expressive Art & Design

- Uses Explore, use and refine a variety of artistic effects to express their ideas and feelings.
- Return to and build on their previous learning, refining ideas and developing their ability to represent them.
- Create collaboratively, sharing ideas, resources and skills.

Early Learning Goal

Fine Motor Skills

- Use a range of small tools, including scissors, paintbrushes and cutlery.

Creating Materials

- 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.

Vocabulary Concepts

Key concepts the children will learn during the year include:

Healthy
Join
Stick
Design
Cut
Create
Tools
Model
Construct(ion)
Build
Draw
Materials

Carlton Colville Primary

DT – Year 1 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 1 design technology curriculum are highlighted below.

Master Practical Skills

Food

- Cut, peel or grate ingredients safely and hygienically.
- Measure or weigh using measuring cups or electronic scales.
- Assemble or cook ingredients.

Materials

- Cut materials safely using tools provided.
- Measure and mark out to the nearest centimetre.
- Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).
- Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).

Mechanics

- Create products using levers, wheels and winding mechanisms.

Design, Make, Evaluate and Improve

- Design products that have a clear purpose and an intended user.
- Make products, refining the design as work progresses.
- Use software to design.

Take Inspiration from Design throughout History

- Explore objects and designs to identify likes and dislikes of the designs.
- Suggest improvements to existing designs.
- Explore how products have been created.

Vocabulary Concepts

Key concepts the children will learn during the year include:

Safety
Grate
Chop
Ingredients
Float
Combining
Mast
Sink
Base
Container
Wind
Dowel
Knot
Piercing

Carlton Colville Primary

DT – Year 2 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 2 design technology curriculum are below.

Master Practical Skills

Food

- Cut, peel or grate ingredients safely and hygienically.
- Measure or weigh using measuring cups or electronic scales.
- Assemble or cook ingredients.

Construction

- Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.

Textiles

- Shape textiles using templates.
- Join textiles using running stitch.
- Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).

Design, Make, Evaluate and Improve

- Design products that have a clear purpose and an intended user.
- Make products, refining the design as work progresses.
- Use software to design.

Take Inspiration from Design throughout History

- Explore objects and designs to identify likes and dislikes of the designs.
- Suggest improvements to existing designs.
- Explore how products have been created.

Vocabulary Concepts

Key concepts the children will learn during the year include:

Hygiene
Recipe
Equipment
Join
Suitability
Frame
Logo
Stitching
Felt
Template
Pattern
Needle

Carlton Colville Primary

DT – Year 3 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 3 design technology curriculum are highlighted below.

Master Practical Skills

Food

- Prepare ingredients hygienically using appropriate utensils.
- Measure ingredients to the nearest gram accurately.
- Follow a recipe.
- Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).

Materials

- Cut materials accurately and safely by selecting appropriate tools.
- Measure and mark out to the nearest millimetre.
- Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).
- Select appropriate joining techniques.

Construction

- Choose suitable techniques to construct products or to repair items.
- Strengthen materials using suitable techniques.

Mechanics

- Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).

Vocabulary Concepts

Key concepts the children will learn during the year include:

Hygienic
Edible
Seasonal
Harvested
Marking out
Scoring
Shaping
Tabs
Joining
Assemble
Mechanism
Lever
Linkage
Pivot

Design, Make, Evaluate and Improve

- Design with purpose by identifying opportunities to design.
- Make products by working efficiently (such as by carefully selecting materials).
- Refine work and techniques as work progresses, continually evaluating the product design.
- Use software to design and represent product designs.

Take Inspiration from Design throughout History

- Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.
- Improve upon existing designs, giving reasons for choices.
- Disassemble products to understand how they work.

Carlton Colville Primary

DT – Year 4 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 4 design technology curriculum are highlighted below.

Mastering Practical Skills

Food

- Prepare ingredients hygienically using appropriate utensils.
- Measure ingredients to the nearest gram accurately.
- Follow a recipe.
- Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).

Textiles

- Understand the need for a seam allowance.
- Join textiles with appropriate stitching.
- Select the most appropriate techniques to decorate textiles.

Electronics

- Create series and parallel circuits.

Design, Make, Evaluate and Improve

- Design with purpose by identifying opportunities to design.
- Make products by working efficiently (such as by carefully selecting materials).
- Refine work and techniques as work progresses, continually evaluating the product design.
- Use software to design and represent product designs.

Take Inspiration from Design throughout History

- Identify some of the great designers in all of the areas of study (including pioneers in horticultural techniques) to generate ideas for designs.
- Improve upon existing designs, giving reasons for choices.
- Disassemble products to understand how they work.

Vocabulary Concepts

Key concepts the children will learn during the year include:

Varied diet
Fabric
Running stitch
Seam
Thread
Fastening
Series circuit
Switch
Conductor
Battery
Parallel circuit

Carlton Colville Primary

DT – Year 5 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 5 design technology curriculum are highlighted below.

Master Practical Skills

Food

- Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).
- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.
- Demonstrate a range of baking and cooking techniques.
- Create and refine recipes, including ingredients, methods, cooking times and temperatures.

Mechanics

- Convert rotary motion to linear using cams.
- Use innovative combinations of electronics (or computing) and mechanics in product designs.

Materials

- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).

Design, Make, Evaluate and Improve

- Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).
- Make products through stages of prototypes, making continual refinements.
- Ensure products have a high quality finish, using art skills where appropriate.
- Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.

Take Inspiration from Design throughout History

- Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.
- Create innovative designs that improve upon existing products.
- Evaluate the design of products so as to suggest improvements to the user experience.

Vocabulary Concepts

Key concepts the children will learn during the year include:

Consumer
Prototype
Redesign
Develop
Evaluate
Analyse
Seasonality
Savory
Aesthetically
Predominant
Pulley
Gear
Functional
Precision
Refine
Appropriate

Carlton Colville Primary

DT – Year 6 Content Breadth and Progression

The key indicators and vocabulary concepts of our year 6 design technology curriculum are highlighted below.

Master Practical Skills

Textiles

- Join Create objects (such as a cushion) that employ a seam allowance.
- Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).
- Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

Electricals and Electronics

- Create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).

Construction

- Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding).

Design, Make, Evaluate and Improve

- Design with the user in mind, motivated by the service a product will offer (rather than simply for profit).
- Make products through stages of prototypes, making continual refinements.
- Ensure products have a high quality finish, using art skills where appropriate.
- Use prototypes, cross-sectional diagrams and computer aided designs to represent designs.

Take Inspiration from Design throughout History

- Combine elements of design from a range of inspirational designers throughout history, giving reasons for choices.
- Create innovative designs that improve upon existing products.
- Evaluate the design of products so as to suggest improvements to the user experience.

Vocabulary Concepts

Key concepts the children will learn during the year include:

User specification
Purpose
Functionality
refinement
Texture
Finishing
Adhesives
Stitch types
Aesthetics
Hallmark
Components

Carlton Colville Primary