

St Joseph's Catholic Primary School Design Technology Coverage

Design Technology Long Term Plan

| Year Group | Autumn | Spring | Summer |
|-------------------|----------------------------|-----------------------|-----------------------------|
| 1 | Homes | | Moving Pictures |
| 2 | Christmas Stockings | Perfect Pizzas | |
| 3 | Sandwich Snacks | Photo Frames | |
| 4 | Alarms | | Seasonal Foods |
| 5 | Building Bridges | | Programming Pioneers |
| 6 | Biscuits | | Slippers/Cushion |

Key Stage 1 Design Technology Coverage

Year 1 Design Technology Coverage:

| Unit | National Curriculum Objective |
|------------------------|--|
| Homes | <ul style="list-style-type: none">• 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.• 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 their ideas and products against design criteria.• explore and evaluate a range of existing products.• build structures, exploring how they can be made stronger, stiffer and more stable |
| Moving Pictures | <ul style="list-style-type: none">• 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.• 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 and evaluate a range of existing products.• evaluate their ideas and products against design criteria.• explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. |

Year 2 Design Technology Coverage:

Christmas Stockings

- design purposeful, functional, appealing products for themselves and other users based on design criteria.
- explore and evaluate a range of existing products.
- 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.

Perfect Pizzas

- 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.
- explore and evaluate a range of existing products.
- evaluate their ideas and products against design criteria.
- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Key Stage 2 Design Technology Coverage

Year 3 Design Technology Coverage:

Sandwich Snacks

- 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.
- 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.
- 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 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.

Photo Frames

- 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.
- 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.
- 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.
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Year 4 Design Technology Coverage:

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| <p>Alarms</p> | <ul style="list-style-type: none">• 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.• select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.• 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 and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. |
| <p>Seasonal Food</p> | <ul style="list-style-type: none">• 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. |

Year 5 Design Technology Coverage:

Building Bridges

- 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.
- evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- apply their understanding of how to strengthen, stiffen and reinforce more complex structures.

Programming Pioneers

- 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.
- select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.
- 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.
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].

Year 6 Design Technology Coverage:

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|--------------------------|---|
| Slippers/cushions | <ul style="list-style-type: none">• 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.• 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.• 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. |
| Biscuits | <ul style="list-style-type: none">• 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.• 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.• 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.• prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. |