Some National Curriculum objectives are deliberately revisited to ensure that key skills, knowledge and understanding are embedded.

Design and Technology – National Curriculum

KS1

Year 1

Autumn

Construct animal homes

- 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.
  - 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 stronger, stiffer and more stable.
  - Explore and use mechanisms in their products.

Summer

Food around the world (cooking)

- 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.
  - 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 stronger, stiffer and more stable.
  - Explore and use mechanisms in their products.

Year 2

Autumn

Construct a fire engine.

- 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.
  - 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 stronger, stiffer and more stable.
  - Explore and use mechanisms in their products.

Spring

Carnival outfit – needs to be textile

Carnival food

- 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.
  - 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 stronger, stiffer and more stable.
  - Explore and use mechanisms in their products.
- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

Summer

Making coil pots

- 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.
    - 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 stronger, stiffer and more stable.
    - Explore and use mechanisms in their products.

KS2

Year 3

Spring

American Sandwiches

- Understand 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.

Summer

Egyptian tomb trap – mechanical device

- 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 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.
- 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 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).

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

Year 4

Autumn

Ancient Greek Technology – choose one that fits best with topic

- 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 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.
- 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 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).
    - Apply their understanding of computing to programme, monitor and control their products.

Spring

Food - Salsa

- Understand 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.

Year 5

Autumn

Construct a moon lander – some sort of mechanical system – perhaps a digger function?

- 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 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.
- 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 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).
  - Apply their understanding of computing to programme, monitor and control their products.

Spring

Anglo-Saxon Jewellery

- 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.
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- Make
  - 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.

- 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 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).
  - Apply their understanding of computing to programme, monitor and control their products.

Year 6

Spring

Construct a vehicle – solar powered/elastic band/wind powered

- 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 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.
- 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 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).
  - Apply their understanding of computing to programme, monitor and control their products.