Design Technology Skills Coverage and Progression

Nursery

Children begin to use one-handed tools and equipment such as making snips in paper with child scissors and understand that they always have to be used safely. Children will start to show an interest in technological toys they may be exposed to everyday which include toys with knobs, pulleys or real objects. Once this has been established, children may begin to show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movement or new images.

They will start to show more of an interest in participating in dance and ring games and once they feel confident may begin to move rhythmically in response to music and may even tap out simple repeated rhythms. Children will begin to show their imaginative side understanding and developing their own preferences for forms of expression. They will start to use movement more to express their feelings and in response to hearing music. Children will then be encouraged to capture these experiences and responses with a range of media such as music, dance, paint and other materials.

Reception

Children begin to show curiosity about objects, events and people. They have discussions which include questions as to why things happen, short, open-ended group activities and spending time thinking about ideas. Children are encouraged to use their senses to explore the world around them. Without realising, children are already beginning to plan and make decisions about how to approach a task, as well as reviewing how well the approach worked afterwards.

Y1/2

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making

Design

- Use their knowledge of existing products and their own experience to help generate their ideas
- Explain how their products will look and work through talking and simple annotated drawings
- Understand and follow simple design criteria

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making

Make

- Begin to select from a range of hand tools and equipment, such as scissors, graters, zesters, safe knives, juicer
- Demonstrate how to cut, shape and join fabric to make a simple product

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making

Evaluate

- Explore and evaluate existing products mainly through discussions, comparisons and simple written evaluations
- Evaluate their products and ideas against their simple design criteria

Children build structures, exploring how they can be made stronger, stiffer and more stable

- Build simple structures, exploring how they can be made stronger, stiffer and more stable
- Explore and create products using mechanisms, such as levers, sliders and wheels

Children use the basic principles of a healthy and varied diet to prepare dishes

- Understand that all food comes from plants or animals
- Name and sort foods into the five groups in the Eatwell Guide

Taught Vocabulary:

Design Technology, plan, equipment, sustainability, products, data, information, test, construct, production, packaging, label, food, tools, technology, environment, fibres, energy efficient, engineer, designer, human impact, criteria, self-evaluation, improve, modify, procedures

Y3/4

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing

Design

- Identify the design features of their products that will appeal to intended customers
- Use annotated sketches and cross-sectional drawings to develop and communicate their ideas

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making

Make

- With growing confidence, carefully select from a range of tools and equipment, explaining their choices
- Begin to select and use different and appropriate finishing techniques to improve the appearance of a product such as hemming, tie-dye, fabric paints and digital graphics

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making

Evaluate

- Explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purpose
- Evaluate their product against their original design criteria

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

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
- Explain how mechanical systems such as levers and linkages create movement

Children understand and apply the principles of a healthy and varied diet

- Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically
- Understand that to be active and healthy, nutritious food and drink are needed to provide energy for the body

Taught Vocabulary:

Design Technology, plan, equipment, sustainability, products, data, information, test, construct, production,

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packaging, label, food, tools, technology, environment, fibres, energy efficient, engineer, designer, human impact, criteria, self-evaluation, improve, modify, procedures

Y5/6

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing

Design

- Use research to inform and develop detailed design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at a target market
- Use annotated sketches, cross-sectional drawings and exploded diagrams (possibly including computer-aided design) to develop and communicate their ideas

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of making

Make

- Independently plan by suggesting what to do next
- Learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene procedures

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making

Evaluate

- Critically evaluate the quality of design, manufacture and fitness for purpose of products as they design and make
- Evaluate their ideas and products against the original design criteria, making changes as needed

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

- Apply their understanding of how to strengthen, stiffen and reinforce more complex structures in order to create more useful characteristics of products
- Explain how mechanical systems, such as cams, create movement and use mechanical systems in their products

Children understand and apply the principles of a healthy and varied diet

- Know, explain and give examples of food that is grown (such as pears, wheat and potatoes), reared (such as poultry and cattle) and caught (such as fish) in the UK, Europe and the wider world
- Demonstrate how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source
- Measure accurately and calculate ratios of ingredients to scale up or down from a recipe

Taught Vocabulary:

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