

DT Curriculum - EYFS

Early Years Curriculum

Pupils should be taught about:

- Design and Technology through the expressive arts area of learning. D&T also links to other areas of learning such as physical, personal social and emotional, PSED and communication.

Nursery Coverage

In Nursery, pupils will follow these themes. However, themes may change as a result of following the children's interests.

Autumn Term- Once Upon a Rhyme! (Nursery rhymes/ actions)

Spring Term- It's all about me! (Me myself, I/ Growing Up)

Summer Term- Let's Explore! (Journeys/ We're Going on a Bear Hunt)

Nursery End points

I can select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them.

I can choose the right resources to carry out their own plan.

I can use one-handed tools and equipment, for example, making snips in paper with scissors.

I can explore how things work.

I can make imaginative and complex 'small worlds' with blocks and construction kits, such as a city with different buildings and a park.

I can explore different materials freely, in order to develop their ideas about how to use them and what to make.

I can develop my own ideas and then decide which materials to use to express them.

Reception Coverage

In Reception, pupils will follow these themes. However, themes may change as a result of following the children's interests.

Autumn Term- I wonder who I am? I wonder what's special?

Spring Term- I wonder how it feels? I wonder who is a hero?

Summer Term- I wonder what is out there? I wonder what moves?

Reception End points

I can develop small motor skills so they I can use a range of tools competently, safely and confidently.

I can return to and build on my previous learning, refining ideas and develop my ability to represent them.

I can create collaboratively, sharing ideas, resources, and skills.

I can use a range of small toys, including scissors and cutlery.

Early Learning Goals

I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, form and function.

I can share my creations, explaining the process I have used.

DT Curriculum - Key Stage 1

National Curriculum:

Pupils should be taught about:

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 [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

- 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 made stronger, stiffer and more stable
- explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.

Cooking and Nutrition

Key stage 1

- use the basic principles of a healthy and varied diet to prepare dishes
- understand where food comes from.

Year 1 Coverage	Year 2 Coverage
Autumn Term - 'The Big Build' construction using small and large scale construction materials Spring Term - 'To the Rescue' 2D vehicle - cutting, joining and finishing techniques/ Lever and slider mechanism Summer Term - 'Animal Allsorts' Make a puppet - Textiles/ sewing skills	Autumn Term - 'All about me' Cooking and Nutrition - Healthy Sandwich - using range of tools Spring Term - 'China' Moving dragons using levers and pneumatics Summer Term - 'Out of this World' Moon buggies - Wheels and axels
Year 1 End points	Year 2 End points
<p><u>Knowledge & Understanding</u></p> <p>I can make my model stronger</p> <p>I can use what I already know to generate and talk about my own ideas.</p> <p><u>Skills</u></p> <p>I can use joining techniques (to include simple stitch work)</p> <p>I can use construction materials</p> <p>I can use tools and materials with help</p> <p>I can use my own ideas to make something</p> <p>I can evaluate my product by saying what I like and dislike</p>	<p><u>Knowledge & Understanding</u></p> <p>I understand where food comes from</p> <p>I can use what I already know from existing products to generate my own ideas for a design</p> <p><u>Skills</u></p> <p>I can select tools and techniques</p> <p>I can use a range of joining techniques</p> <p>I can explore and use mechanisms with a lever/slider</p> <p>I can explore and use mechanisms with a wheels/axels</p> <p>I can create a healthy product using a range of tools</p> <p>I can generate and communicate my ideas</p> <p>I can record my design ideas in different ways</p> <p>I can evaluate my product by saying what I like, dislike and how I would improve my work</p>

DT Curriculum -Key Stage 2

National Curriculum:

Pupils should be taught about:

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]
- understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
- apply their understanding of computing to program, monitor and control their products.

Cooking and Nutrition

Key stage 2

- 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 3 Coverage

Autumn Term - 'A journey across the ages' Stone to Iron age structures - both small and large complex structures
 Spring Term - 'What's on our doorstep?' Marionette Puppet
 Summer Term - 'Romans and Italy' Cooking and Nutrition - Soup

Year 3 End points

Knowledge & Understanding

I can apply my understanding of how to strengthen, stiffen and reinforce more complex structures.
 I understand and use mechanical systems in my products
 I understand that food is grown, reared and caught.
 I understand the importance of healthy and varied diet when designing a product

Skills

I can investigate a range of existing products
 I can develop and explain ideas to meet a range of needs
 I can communicate design ideas in different ways to include computer aided design
 I can plan what to do

Year 4 Coverage

Autumn Term - 'H2O' Make a boat - motor mechanism
 Spring Term - 'Invaders' Pop up toys - Cam mechanism
 Summer Term - 'Amazing Amazon' Moving picture book - levers and linkages

Year 4 End points

Knowledge & Understanding

I understand and use electrical systems (motor)
 I understand and use mechanical systems (CAM) (Levers and Linkages)

Skills

I can investigate a range of existing products
 I can generate, develop and communicate my ideas through design in different ways
 I can select appropriate tools and techniques
 I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with increasing accuracy.
 I can test out my product on its intended audience to inform the evaluation process

<p>I can select tools and techniques appropriate to the task</p> <p>I can create a product with a moveable part</p> <p>I can prepare and cook a savoury dish using a range of cooking techniques</p> <p>I can suggest alternative ways to make a product</p> <p>I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with some accuracy</p> <p>I can reflect on the design and making process by identifying ways I could improve my product.</p>	<p>I can identify where evaluation had led to improvements</p>
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Year 5 Coverage	Year 6 Coverage
<p>Autumn Term - 'Rites and Rituals' Design and make chocolate food packaging - computer aided design</p> <p>Spring Term - 'The Ancient Greeks' Textiles - Greek inspired product</p> <p>Summer Term - 'London - Then and Now' London's iconic buildings - pulley and gear mechanisms</p>	<p>Autumn Term - 'Black Out!' Cooking and Nutrition - Traditional dishes</p> <p>Summer Term - 'The World is our Oyster - A time to shine!' Design and make a robot/ toy using a range of mechanisms previously learnt - Enterprise unit</p>

Year 5 End points	Year 6 End points
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<p><u>Knowledge & Understanding</u></p> <p>I can use my knowledge of pattern to inform my own designs</p> <p>I understand and use mechanical systems in my product (gears, pulleys, CAMS, levers and linkages)</p> <p><u>Skills</u></p> <p>I can investigate a range of existing products</p> <p>I can generate ideas by collecting and using information using a number of sources including ICT</p> <p>I can design an appealing product aimed at its intended audience</p> <p>I can plan what I have to do by suggesting a sequence of actions and alternatives if needed</p> <p>I can draw and construct my own 3D net</p> <p>I can select appropriate tools and techniques</p> <p>I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with accuracy.</p> <p>I can construct using textiles and use a variety of joining stitches</p> <p>I can reflect on the progress of my work identifying ways I could improve my product sometimes using feedback from my intended audience</p>	<p><u>Knowledge & Understanding</u></p> <p>I know about traditional British dishes and their links to history. (Cooking and nutrition)</p> <p>I know how British dishes have been influenced from countries around the world. (Cooking and nutrition)</p> <p>I understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. (Cooking and nutrition)</p> <p><u>Skills</u></p> <p>I can plan, budget and source ingredients (Cooking and nutrition)</p> <p>I can use a range of preparation and cooking techniques (Cooking and nutrition)</p> <p>I can investigate a range of existing products and use information collected from different sources to inform my design</p> <p>I can generate and clarify ideas for products considering intended purpose</p> <p>I can develop, explain and record ideas clearly in different ways suggesting a sequence of actions and alternatives if needed</p> <p>I can use my knowledge of mechanical and electrical components to create a purposeful product fit for its intended audience</p> <p>I can select from a wide range of materials, tools and techniques so that they are fit for purpose and use these appropriately.</p> <p>I can measure, mark, cut out and shape a range of materials and assemble, join and combine components and materials with precision</p> <p>I can refine finishing techniques to strengthen and improve the appearance of their product (to include ICT)</p> <p>I can check my work as it develops and modify if needed</p> <p>I can test out my product on its intended audience and use this to inform the self-evaluation process.</p>
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