

EYFS Statement relating to subject

Design Technology has an important role to play in the Early Years curriculum and is evident in the different areas of both the Reception and Nursery classrooms. The home area, the building area and outdoor area all provide opportunities for children to begin to develop the skills, knowledge and vocabulary they will use in Design Technology lessons throughout their primary phase. A dedicated DT area with tools and materials available for the children is also vital to ensuring a successful start to their lives as future engineers, designers and manufacturers.

In the new Statutory Framework for EYFS, the prime area of Physical development refers to the development of fine motor skills and hand-eye coordination through using small tools. DT can also support the specific area of Mathematics, particularly the development of children’s spatial reasoning. Through the Understanding the World area, children will develop understanding of technology and in the area of Expressive Arts and Design, children will begin to engage in materials and media they will use throughout their school life. They will begin to communicate through the arts and start to show self-expression, making choices about what they like and don’t like – leading to an understanding of themselves as a ‘user’.

Year group/term	Year 1 Autumn Term	Year 1 Spring Term	Year 1 Summer Term
Learning Topic	Freestanding Structures	Food - Preparing Fruit	Mechanism – Sliders & Levers
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> To know the difference between natural and manufactured (man-made) Know & understand the term ‘design’ To generate ideas to solve problems using resources they are familiar with, to talk about their ideas and to draw them. <p>Making</p> <ul style="list-style-type: none"> To know the term ‘plan’ To follow a plan using ‘first’ ‘next’ ‘then’ Know the terms: Structure, weak, strong, stiff, stable, base, cut, fold, join, fix <p>Evaluate</p> <ul style="list-style-type: none"> To say whether or not their ideas have or haven’t worked. <p>Structures</p> <ul style="list-style-type: none"> To know that structures are more stable when the base is wide or heavy To know that thin materials can be folded to make them stronger and to make them stand up. 	<p>Designing</p> <ul style="list-style-type: none"> Know & understand the term ‘design’ To generate ideas to solve problems using resources they are familiar with, to talk about their ideas and to draw them. <p>Making</p> <ul style="list-style-type: none"> To know the term ‘plan’ To follow a plan using ‘first’ ‘next’ ‘then’ <p>Evaluate</p> <ul style="list-style-type: none"> To say whether or not their ideas have worked, have worked well or haven’t worked. <p>Food</p> <ul style="list-style-type: none"> To know that some food comes from plants and some from animals To know that some foods are healthy and others aren’t always To cut using a vegetable knife using a bridge grip 	<p>Designing</p> <ul style="list-style-type: none"> Know & understand the term ‘design’ To generate ideas to solve problems using resources they are familiar with, to talk about their ideas and to draw them. <p>Making</p> <ul style="list-style-type: none"> To know the term ‘plan’ To follow a plan using ‘first’ ‘next’ ‘then’ <p>Evaluate</p> <ul style="list-style-type: none"> To say whether or not their ideas have worked, have worked well or haven’t worked. <p>Mechanisms</p> <ul style="list-style-type: none"> Know the terms: slider, lever, pivot, Create a lever using a card strip and a paper fastener as a pivot. Create a slider using a card strip and a guide

Year group/term	Year 2 Autumn Term	Year 2 Spring Term	Year 2 Summer Term
Learning Topic	Mechanism	Textiles	Food
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> To know the terms 'design brief' state what their products are, who and what they are for and how they will work. generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computers <p>Making</p> <ul style="list-style-type: none"> plan by suggesting what to do next; Use a numbered plan (ordinal) <p>Evaluate</p> <p>To say whether or not their ideas have worked well or not giving reasons for their answers.</p> <p>Mechanism</p> <ul style="list-style-type: none"> Know the terms: wheel, axle, axle holder To recognise the following tools and say what each is used for - junior hacksaw To safely measure, mark and cut a wooden dowel to length. 	<p>Designing</p> <ul style="list-style-type: none"> To know the terms 'design brief' and 'design criteria' use simple design criteria; state what their products are, who and what they are for and how they will work. generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computers <p>Making</p> <ul style="list-style-type: none"> plan by suggesting what to do next; Use a numbered plan (ordinal) <p>Evaluate</p> <p>To say whether or not their ideas have worked well or not giving reasons for their answers.</p> <p>Textile</p> <ul style="list-style-type: none"> Know the terms: fabric, sew, stitch, template To recognise the following tools and say what each is used for – needle, pin, safety pin To use a template to duplicate a part To sew using a running stitch 	<p>Designing</p> <ul style="list-style-type: none"> To know the terms 'design brief' and 'design criteria' use simple design criteria; state what their products are, who and what they are for and how they will work. generate ideas using their own experiences and existing products; use talk, drawing, templates, mock-ups and, where appropriate, computers <p>Making</p> <ul style="list-style-type: none"> plan by suggesting what to do next; Use a numbered plan (ordinal) <p>Evaluate</p> <p>To say whether or not their ideas have worked well or not giving reasons for their answers. To understand that others may evaluate their work differently.</p> <p>Food</p> <ul style="list-style-type: none"> To know that some food comes from farms, caught in the sea and some can be home grown To know that we should eat 5 portions for fruit or vegetables a day To slice using a vegetable knife using a 'fork secure' grip

Year group/term	Year 3 Autumn Term	Year 3 Spring Term	Year 3 Summer Term
Learning Topic	Food	Textiles	Structures
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> To know the term 'user' and that the user may have different requirements from themselves. To know that information from different sources can be used to inform design decisions. <p>Making</p> <ul style="list-style-type: none"> Plan making a project, identifying and numbering the main stages. Understand that some stages can be undertaken concurrently without affecting others. <p>Evaluate</p> <ul style="list-style-type: none"> To know the term 'Evaluate' To know the designer's responsibility to evaluate their products <p>Food</p> <ul style="list-style-type: none"> To identify healthy and potentially unhealthy ingredients. To know that our food is grown all over the world To slice using a vegetable knife and a claw grip 	<p>Designing</p> <ul style="list-style-type: none"> To know the terms 'user' 'purpose' and 'design feature' relating to design criteria. To produce clear labelled drawings of their ideas on paper and using ICT. <p>Making</p> <ul style="list-style-type: none"> Plan making a project, identifying and numbering the main stages. Understand that some stages can be undertaken concurrently without affecting others. <p>Evaluate</p> <ul style="list-style-type: none"> To know the term 'Evaluate' To evaluate their ideas and products using their knowledge of their user and purpose. <p>Textile</p> <ul style="list-style-type: none"> Know the terms: fastener, applique, 3D To create a 3D product from 2D pattern pieces To sew using a back stitch To use seam allowances when creating with textiles 	<p>Designing</p> <ul style="list-style-type: none"> To know the terms 'user' 'purpose' and 'design feature' relating to design criteria. To produce clear labelled drawings of their ideas on paper and using ICT. <p>Making</p> <ul style="list-style-type: none"> Plan making a project, identifying and numbering the main stages. Understand that some stages can be undertaken concurrently without affecting others. <p>Evaluate</p> <ul style="list-style-type: none"> To know the term 'Evaluate' To evaluate their ideas and products using their knowledge of their user and purpose. <p>Structures</p> <ul style="list-style-type: none"> Know the terms: scoring, tabs To score a line accurately with a ruler and tool To stiffen a flat piece of material using laminating, ribbing and corrugating

Year group/term	Year 4 Autumn Term	Year 4 Spring Term	Year 4 Summer Term
Learning Topic	Mechanism	Food	Electrical Systems
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> gather information about user needs; describe the user, purpose and design features of their products and explain how they will work. generate realistic ideas based on user needs; use a range of drawing skills, prototypes, and computer-aided design. <p>Making</p> <ul style="list-style-type: none"> To know that a critical stage is one that subsequent stages cannot be started before it is complete. Begin to devise their own procedures for safety and hygiene; <p>Evaluate</p> <ul style="list-style-type: none"> evaluate their ideas and products against their design criteria. <p>Mechanism</p> <ul style="list-style-type: none"> Know the terms: pneumatic input ,output, control, seal, air-tight Know how a pneumatic system works with an input and output movement To combine a pneumatic system with a slider or lever 	<p>Designing</p> <ul style="list-style-type: none"> gather information about user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work. generate realistic ideas based on user needs; use a range of drawing skills, prototypes, and computer-aided design. <p>Making</p> <ul style="list-style-type: none"> order the main stages of making including any that are critical (one that subsequent stages cannot be started before it is complete) Begin to devise their own procedures for safety and hygiene; <p>Evaluate</p> <ul style="list-style-type: none"> evaluate their ideas and products against their design criteria. compare how well two products have been designed and made <p>Food</p> <ul style="list-style-type: none"> To know some healthy alternatives to popular sweets and drinks To warm and melt ingredients safely using a heat source 	<p>Designing</p> <ul style="list-style-type: none"> gather information about user needs; develop their own design criteria; describe the user, purpose and design features of their products and explain how they will work. generate realistic ideas based on user needs; use a range of drawing skills, prototypes, and computer-aided design. <p>Making</p> <ul style="list-style-type: none"> order the main stages of making including any that are critical (one that subsequent stages cannot be started before it is complete) Begin to devise their own procedures for safety and hygiene; <p>Evaluate</p> <ul style="list-style-type: none"> evaluate their ideas and products against their design criteria. compare how well two products have been designed and made <p>Electrical Systems</p> <ul style="list-style-type: none"> To make a variety of simple switches using classroom materials To include a switch in their finished product To include a circuit diagram in their design

Year group/term	Year 5 Autumn Term	Year 5 Spring Term	Year 5 Summer Term
Learning Topic	Structures	Electrical Systems	Food
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> To plan an information gathering exercise to collect data on the user. To know that they can decide on their own design criteria for a product. To generate innovative ideas using information collected using accurate labelled drawings, prototypes and computer-aided design <p>Making</p> <ul style="list-style-type: none"> Begin to formulate lists of resources and equipment and create step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene <p>Evaluate</p> <ul style="list-style-type: none"> To make realistic judgements about the products they make in relation to the design brief. To suggest ways that their designs could be improved and the effect this would have on the user. <p>Structures</p> <ul style="list-style-type: none"> To know the following terms Frame, reinforce, triangulation To reinforce a 'but' joint using card triangles To reinforce square frames using triangulation To use a bench hook to cut at 90° 	<p>Designing</p> <ul style="list-style-type: none"> To plan an information gathering exercise to collect data on the user. To know that they can decide on their own design criteria for a product. To generate innovative ideas using information collected using accurate labelled drawings <p>Making</p> <ul style="list-style-type: none"> Begin to formulate lists of resources and equipment and create step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene <p>Evaluate</p> <ul style="list-style-type: none"> To make realistic judgements about the products they make in relation to the design brief. To suggest ways that their designs could be improved and the effect this would have on the user. <p>Electrical Systems</p> <ul style="list-style-type: none"> To write a control programme as part of their design To design a product using a parallel circuit controlled by two or more switches To control the operation of their product 	<p>Designing</p> <ul style="list-style-type: none"> To plan an information gathering exercise to collect data on the user. To generate innovative ideas using information collected <p>Making</p> <ul style="list-style-type: none"> Begin to formulate lists of resources and equipment and create step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene <p>Evaluate</p> <ul style="list-style-type: none"> To make realistic judgements about the products they make in relation to the design brief. <p>Food</p> <ul style="list-style-type: none"> To understand the seasonal nature of food and its availability and how modern production can negate this. To know that cooking ingredients can change their taste, texture and use To know how to use an oven safely including using an oven glove.

Year group/term	Year 6 Autumn Term	Year 6 Spring Term	Year 6 Summer Term
Learning Topic	Food	Mechanisms	Textiles
Key knowledge and skills to be secured	<p>Designing</p> <ul style="list-style-type: none"> carry out research; develop a simple design specification; describe the user, purpose and design features of their products and explain how they will work. generate innovative ideas drawing on research <p>Making</p> <ul style="list-style-type: none"> formulate lists of resources and detailed step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with accuracy. <p>Evaluate</p> <ul style="list-style-type: none"> identify strengths and areas to develop in their ideas and products against their design specification; consider the views of others to make improvements. <p>Food</p> <ul style="list-style-type: none"> To understand the processing of ingredients such as flour from wheat To know that some ingredients can be unhealthy for people with food allergies To rub in flour and knead dough 	<p>Designing</p> <ul style="list-style-type: none"> carry out research; develop a simple design specification; describe the user, purpose and design features of their products and explain how they will work. generate innovative ideas drawing on research; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design <p>Making</p> <ul style="list-style-type: none"> formulate lists of resources and detailed step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with accuracy. <p>Evaluate</p> <ul style="list-style-type: none"> identify strengths and areas to develop in their ideas and products against their design specification; consider the views of others to make improvements. <p>Mechanism</p> <ul style="list-style-type: none"> Know the terms: cam, , follower, rotary motion, oscillating motion, reciprocating motion To make an accurate hole through a piece of wood using a hand drill To combine a cam with a follower 	<p>Designing</p> <ul style="list-style-type: none"> carry out research; develop a simple design specification; describe the user, purpose and design features of their products and explain how they will work. generate innovative ideas drawing on research; use a range of drawing skills, discussion, prototypes, pattern pieces and computer-aided design <p>Making</p> <ul style="list-style-type: none"> formulate lists of resources and detailed step-by-step plans; select suitable tools, equipment, materials and components and explain their choices. To devise and follow procedures for safety and hygiene; use a wider range of materials and components; measure, mark out, cut, shape, assemble, join, combine and finish with accuracy. <p>Evaluate</p> <ul style="list-style-type: none"> identify strengths and areas to develop in their ideas and products against their design specification; consider the views of others to make improvements. <p>Textiles</p> <ul style="list-style-type: none"> To know how fabric is strengthened To fasten pieces together temporarily using a large running stitch (tack) To use embroidery to decorate fabric.