

# DT Curriculum Skills



		<b>Design, Making, Evaluating</b> <b>National Curriculum</b> 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. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:					
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Design :</b>		<b>Design</b> <ul style="list-style-type: none"> <li>Design purposeful, functional, appealing products for themselves and other users based on design criteria</li> <li>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul>		<b>Design</b> <ul style="list-style-type: none"> <li>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</li> <li>Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</li> </ul>			
<b>Design :</b>	<b>Skills:</b> <b>40-60 Months Expressive Arts and Design Exploring and Using Media and Materials</b> <ul style="list-style-type: none"> <li>To construct with a purpose in mind, using a variety of resources.</li> </ul> <b>40-60+ months Communication and Language Speaking</b> <ul style="list-style-type: none"> <li>Uses talk to organise, sequence and clarify thinking, ideas, feelings and events.</li> </ul> <b>ELG</b> <b>Expressive Arts and Design</b>	<b>Skills:</b> Can I explain what I am making, why I am making it and who it is for?	<b>Skills:</b> Can I model ideas by exploring different materials and then use these to make up different templates?	<b>Skills:</b> Can I describe the purpose of my product and can I share design features?	<b>Skills:</b> Can I generate realistic ideas that focus on the needs of the user?	<b>Skills:</b> Can I model ideas using prototypes and pattern pieces?	<b>Skills:</b> Can I develop a design criteria and use this to inform my ideas?
		Can I work in a wide range of environments?	Can I talk about how my product works/its purpose/and who it is for in detail?	Can I gather information about the needs and wants of individuals or groups?	Can I create my own design criteria for specific groups and use this to inform my ideas?	Can I make design decisions for specific groups that take in account the availability of resources?	Can I plan and conduct questionnaires and surveys to identify the user's needs?

	<b>Exploring and Using Media and Materials</b> <b>Being Imaginative</b> <ul style="list-style-type: none"> <li>To use what they have learnt about media and materials in original ways, thinking about uses and purposes.</li> </ul> <b>ELG</b> <b>Communication and Language Speaking</b> <ul style="list-style-type: none"> <li>Children express themselves effectively, showing awareness of listener's needs.</li> <li>They develop their own narratives and explanations by connecting ideas and events.</li> </ul>	Can I describe what my product is for and communicate this through talking and drawing and arranging pieces of construction?	Can I describe what my product is for and communicate this through talking and drawing and labelling?	Can I design using annotated diagrams?	Can I design using annotated diagrams to show logical steps and make pattern pieces?	Can I design using annotated diagrams that show step by step plans and model using prototypes?	Can I design using annotated diagrams and make pattern pieces and model using prototypes?  Can I explain what the next steps are in my learning and use my prior experiences to help me?
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Making:		<b>Make</b> <ul style="list-style-type: none"> <li>Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing.</li> <li>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul>	<b>Make</b> <ul style="list-style-type: none"> <li>Select from and use a wider range of tools and equipment to perform practical tasks e.g. 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.</li> </ul>				
Making:	<b>Skills:</b> <b>40-60+ months Communication and Language Speaking</b> <ul style="list-style-type: none"> <li>Uses talk to organise, sequence and clarify thinking, ideas, feelings and events.</li> </ul> <b>ELG</b> <b>Communication and Language Speaking</b> <ul style="list-style-type: none"> <li>Children express themselves effectively, showing awareness of listener's needs.</li> </ul>	<b>Skills:</b> Can I explain what I am making?	<b>Skills:</b> Can I explain what I am making and suggest what to do next.	<b>Skills:</b> Can I think about the safety of using materials e.g. construction kits?	<b>Skills:</b> Can I confidently select tools and equipment suitable to the task, and can explain why I have made these choices?	<b>Skills:</b> Can I think of accurate finishing techniques and explain why I have chosen them?	<b>Skills:</b> Can I use resourcefulness and resilience when tackling practical problems?

	<ul style="list-style-type: none"> <li>They develop their own narratives and explanations by connecting ideas and events.</li> </ul>						
	<p><b>40-60 Months</b>  <b>Physical Development</b>  <b>Moving and Handling</b></p> <ul style="list-style-type: none"> <li>To use simple tools to effect changes to materials.</li> <li>To handle tools, objects, construction and malleable materials safely and with increasing control.</li> </ul> <p><b>Expressive Arts and Design</b>  <b>Exploring and Using Media and Materials</b></p> <ul style="list-style-type: none"> <li>To use simple tools and techniques competently and appropriately.</li> </ul> <p><b>ELG</b>  <b>Physical Development</b>  <b>Moving and Handling</b></p> <ul style="list-style-type: none"> <li>To handle equipment and tools effectively, including pencils for writing.</li> </ul> <p><b>Expressive Arts and Design</b>  <b>Exploring and Using Media and Materials</b></p> <ul style="list-style-type: none"> <li>To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	Can I use materials and tools correctly?	Can I choose appropriate materials and tools?	Can I use equipment and tools accurately?	Can I show a good level of expertise when using a range of tools and equipment?	Can I use a range of tools and equipment expertly?	Can I use tools and materials precisely?
	<p><b>40-60 Months</b>  <b>Expressive Arts and Design</b>  <b>Exploring and Using Media and Materials</b></p> <ul style="list-style-type: none"> <li>To select appropriate resources and adapt work where necessary.</li> <li>To select tools and techniques needed to shape, assemble and join materials they are using.</li> </ul> <p><b>ELG</b>  <b>Expressive Arts and Design</b>  <b>Exploring and Using Media and Materials</b></p> <ul style="list-style-type: none"> <li>To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>	Can I mark and cut out most shapes in a range of materials?	Can I assemble and join different materials and components in different ways?	Can I assemble, join and combine many materials and apply appropriate finishing techniques?	Can I assemble, join and combine many materials and apply appropriate finishing techniques?	Can I assemble, join and combine many materials and can apply appropriate finishing techniques?	Can I assemble, join and combine many materials and can apply appropriate finishing techniques?

	<b>Being Imaginative</b> <ul style="list-style-type: none"> <li>• They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories</li> </ul>						
					Can I tell if the finished product is going to be of good quality and liked by others?	Can I explain why my finished product is going to be of good quality and why it will appeal to the audience?	Can I change the way I am working if required?
		See <b>Cooking and Nutrition</b> <b>Technical Knowledge including:</b> Textiles Mechanisms Use of materials Construction		See <b>Cooking and Nutrition</b> <b>Technical Knowledge including:</b> Textiles Electrical and mechanical components Stiff and flexible sheet materials Mouldable materials			
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluating:		<b>Evaluate</b> <ul style="list-style-type: none"> <li>• Explore and evaluate a range of existing products.</li> <li>• Evaluate their ideas and products against design criteria.</li> </ul>		<b>Evaluate</b> <ul style="list-style-type: none"> <li>• Investigate and analyse a range of existing products.</li> <li>• Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</li> <li>• Understand how key events and individuals in design and technology have helped shape the world.</li> </ul>			
Evaluating:	Skills:	<b>Skills:</b> Can I talk about what I like and dislike about existing products?	<b>Skills:</b> Can I talk about what I like and dislike about existing products?	<b>Skills:</b> Can I talk about what I like and dislike about existing products and discuss how they are fit for purpose?	<b>Skills:</b> Can I investigate and analyse how well a product has been made, and specify which methods and materials have been successful/unsuccessful?	<b>Skills:</b> Can I analyse who the product was made for, the users' needs and wants and if the product meets its purpose?	<b>Skills:</b> Can I think about how sustainable materials are used, if they are recyclable and how much the product costs?

	Can I talk about the purpose of my product, how it works and how to improve it?	Can I talk about the purpose of my product, how it works and how to improve it?	Can I talk about my design and what went well with my product?  Can I talk and write about how to make my product better?	Can I talk about any changes I have made to make my product even better?	Can I think about how to check if my design has been successful?  Can I improve my original design?  Can I evaluate my product thinking of both appearance and the way it works?	Can I keep checking that my design is the best it can be and whether anything can be improved?  Can I evaluate the appearance and function against the original design?  Can I explain why certain materials were chosen and how well they contribute to the product?	Can I test and evaluate my final product?  Is it fit for purpose?  What would improve it?  Would different resources have improved my product?  Can I consider the views of others, including the intended users and can I use these views to evaluate the successfulness of my product?
		<b>Not a National Curriculum Requirement.</b> Explore objects and designs to identify likes and dislikes.	<b>Not a National Curriculum Requirement.</b> Explore objects and designs to identify likes and dislikes.  Explore how products have been created.	Can I recognise several DT inventors/designers?	Can I recognise several DT inventors/designers and key events?	Can I recognise several inventors/designers and key events and how they have been influential in the D.T. industry?	Can I recognise several inventors/designers and key events who have been influential in the D.T. industry and the impact they have had on the modern world?
		<b>Cooking and Nutrition</b> <b>National Curriculum</b> As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.					
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Cooking and Nutrition:</b>		<ul style="list-style-type: none"><li>Use the basic principles of a healthy and varied diet to prepare dishes.</li><li>Understand where food comes from.</li></ul>		<ul style="list-style-type: none"><li>Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.</li><li>Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</li></ul>			
<b>Cooking and Nutrition:</b>	<b>Skills:</b> <b>40-60 Months Physical Development Health and Self Care</b> Eats a healthy range of foodstuffs and understands need for variety in food. <b>ELG</b>	<b>Skills:</b> Can I name and sort foods into the five groups in 'The Eatwell Plate'?	<b>Skills:</b> Can I begin to recognise that everyone should eat at least five portions of fruit and vegetables every day?	<b>Skills:</b> Do I know that to be active and healthy, food is needed to provide energy for the body?	<b>Skills:</b> Do I understand that exercise is also important for our wellbeing and fitness?	<b>Skills:</b> Do I know that different foods contain substances that are needed for health e.g. water, fibre, vitamins, minerals and nutrients?	<b>Skills:</b> Do I understand that healthy diets must incorporate the correct amounts of food types and substances?

	<b>Physical Development</b> <b>Health and Self Care</b> Children know the importance for good health of physical exercise and a healthy diet and talk about ways to keep healthy and safe.						
	Can I prepare some simple dishes? Use techniques e.g. spreading, cutting and mixing.	Can I prepare some simple dishes? Use techniques e.g. cutting, peeling and grating?	Do I know how to prepare simple dishes safely and hygienically, without using a heat source?  Can I use different techniques e.g. cutting, chopping, peeling and grating?	Can I begin to know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking to cook mainly savoury dishes?	Do I know how to use a wide range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking to cook mainly savoury foods?	Do I know how to use a wide range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking to cook mainly savoury dishes?	Do I know how to use a wide range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking to cook mainly savoury dishes?
	Can I begin to recognise that food comes from plants or animals?	Can I begin to recognise that food comes from plants or animals?	Do I know that food comes from plants or animals?	Do I understand that certain foods can only be grown during certain seasons in different countries?  Do I know that food is farmed, reared, grown elsewhere (e.g. home), imported or caught locally, regionally and internationally?	Do I understand that certain foods can only be grown during certain seasons in different countries?  Do I know that food is farmed, reared, grown elsewhere (e.g. home, allotments), exported, imported or caught. This can be on a local, regional and international scale?	Do I know that food is farmed, reared, grown elsewhere (e.g. home, allotments), exported, imported or caught. This can be on a local, regional and international scale?  Can I begin to know that seasons and weather affect food availability?	Do I know that food is farmed, reared, grown elsewhere (e.g. home, allotments), exported, imported or caught. This can be on a local, regional and international scale?  Can I begin to know that seasons and weather affect food availability?
		<b>Technical Knowledge</b> <b>National Curriculum</b> 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. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment]. When designing and making, pupils should be taught to:					
	<b>EYFS</b>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Technical Knowledge:</b>		<ul style="list-style-type: none"> <li>Build structures, exploring how they can be made stronger, stiffer and more stable.</li> <li>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul>		<ul style="list-style-type: none"> <li>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.</li> <li>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].</li> <li>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors].</li> <li>Apply their understanding of computing to program, monitor and control their products.</li> </ul>			
<b>Textiles:</b>	<b>40-60 Months</b> <b>Expressive Arts and Design</b> <b>Exploring and Using Media and Materials</b> <ul style="list-style-type: none"> <li>To experiment to create different textures.</li> </ul> <b>ELG</b>	<b>Skills:</b> Can I describe how different textiles feel?	<b>Skills:</b> Can I explain why I chose a certain textile?	<b>Skills:</b> Can I choose textiles both for their appearance and also qualities?	<b>Skills:</b> Can I think what the user would want when choosing textiles?	<b>Skills:</b> Can I think what the user would want when choosing textiles?	<b>Skills:</b> Can I think about how to sell the product?

	<b>Expressive Arts and Design</b> <b>Exploring and Using Media and Materials</b> •To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.						
					Can I devise a template?	Can I make a prototype first?	Can I make a prototype first?
	Can I make a product from textiles by gluing?	Can I make a product from textiles by gluing?	Can I measure textiles?  Can I join textiles together to make something?  Can I cut textiles?	Can I join textiles of different types in different ways?	Can I think about how to make the product stronger?  Can I describe how to join things in different ways?	Can I make my product attractive and strong?  Can I use a range of joining techniques?	Can I make my product attractive and strong?  Can I use a range of joining techniques?
							Can I think about how to improve the product even more?
<b>Mechanisms:</b>	<b>30-50 Months</b> <b>Understanding the World Technology</b> • To show an interest in technological toys with knobs or pulleys, or real objects. • To show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movements or new images.	Can I make a product that moves? [for example, levers, sliders, wheels and axles]  Can I cut materials using scissors?	Can I join materials together as part of a moving product? [for example, levers, sliders, wheels and axles]				

		<p>Can I describe the materials using different words?</p> <p>Can I say why I chose these moving parts?</p>	Can I add some design features to my product?				
Electrical and Mechanical Components:				Can I select the most appropriate tools and techniques for a task?	Can I select the most appropriate tools and techniques for a task?	Can I select the most appropriate tools and techniques for a task?	Can I select the most appropriate tools and techniques for a task?
				Can I make a product which uses mechanical components?	<p>Can I make a product which uses electrical and mechanical components?</p> <p>Can I make and use a simple circuit?</p>	Can I incorporate a switch into my product?	Can I use different types of circuits in my product?
						Can I incorporate hydraulics and pneumatics?	Can I incorporate hydraulics and pneumatics?
					Can I explain how I have altered my product, after checking it?	Can I refine my product, after testing it?	Can I think of the ways that adding a circuit improved my product?
Use of Materials:		<p>Can I make a structure/model using different materials?</p> <p>Is my work tidy?</p>	<p>Can I measure materials that I will be using?</p> <p>Can I join materials in different ways?</p>				
		Can I make my model stronger, if I need to?	Can I use joining, folding or rolling to make my materials stronger?				



Stiff and Flexible Sheet Materials:				Can I use the most appropriate materials?	Can I use the most appropriate materials?	Can I use the most appropriate materials?	Can I justify why I selected specific materials?
				Can I work accurately to make cuts and holes?	Can I measure carefully to make sure I have not made mistakes?	Can I measure accurately to ensure everything is precise?	Can I explain what I have done to make sure that everything is accurate and precise?
				Can I join materials?	Can I explain how I have tried to make my product strong?	Can I explain how I have tried to make my product strong and fit for purpose?	Can I hide joints to improve the appearance of my product?
							Can I work within a budget?
Construction:	See design, making and evaluating.	Can I make simple plans? (see design)	Can I make simple plans? (see design)				
		Can I talk about how I want to construct my product?	Can I develop my own ideas from my initial starting point?				
		Can I select appropriate resources and tools?	Can I make sensible choices about which materials to use for my construction?				
			Can I consider how to improve my construction?				
Mouldable Materials:				Can I select the most appropriate materials?	Can I select the most appropriate materials?	Can I select the most appropriate materials?	Can I consider the use of the product when selecting materials?
				Can I use a range of techniques to shape and mould?	Can I use a range of techniques to shape and mould?	Can I use a range of techniques to shape and mould?	Can I use a range of techniques to shape and mould?

				Can I use finishing techniques?	Can I use finishing techniques?	Can I use finishing techniques?	Can I use finishing techniques?
					Can I work at my product when my original idea may not have worked?	Can I persevere through the different stages of the making process?	Can I persevere through the different stages of the making process?

## Learning in EYFS:

### What DT Subject Leaders Need to Know

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. The aim of this document is to help subject leaders to understand how the skills taught across EYFS feed into national curriculum subjects.

This document demonstrates which early years outcomes are prerequisite skills for DT within the national curriculum. The table below outlines the most relevant early years outcomes from 30-50 months to ELG, brought together from different areas of the Early Years Foundation Stage, to match the programme of study for DT.

The most relevant early years outcomes for DT are taken from the following areas of learning:

- Physical Development
- Understanding the World
- Expressive Arts and Design

DT			
30-50 Months	Physical Development	Moving and Handling	<ul style="list-style-type: none"> <li>• To use one-handed tools and equipment, e.g. makes snips in paper with child scissors.</li> </ul>
		Health and Self-Care	<ul style="list-style-type: none"> <li>• To understand that equipment and tools have to be used safely.</li> </ul>
	Understanding the World	Technology	<ul style="list-style-type: none"> <li>• To show an interest in technological toys with knobs or pulleys, or real objects.</li> <li>• To show skill in making toys work by pressing parts or lifting flaps to achieve effects, such as sound, movements or new images.</li> </ul>
	Expressive Arts and Design	Exploring and Using Media and Materials	<ul style="list-style-type: none"> <li>• To enjoy joining in with dancing and ring games.</li> <li>• To begin to move rhythmically.</li> <li>• To imitate movement in response to music.</li> <li>• To tap out simple repeated rhythms.</li> </ul>
		Being Imaginative	<ul style="list-style-type: none"> <li>• To develop preferences for forms of expression.</li> <li>• To use movement to express feelings.</li> <li>• To create movement in response to music.</li> <li>• To capture experiences and responses with a range of media, such as music, dance and paint and other materials or words.</li> </ul>
40-60 Months	Physical Development	Moving and Handling	<ul style="list-style-type: none"> <li>• To use simple tools to effect changes to materials.</li> <li>• To handle tools, objects, construction and malleable materials safely and with increasing control.</li> </ul>
		Health and Self-Care	<ul style="list-style-type: none"> <li>• To show understanding of the need for safety when tackling new challenges and consider and manage some risks.</li> <li>• To show understanding of how to transport and store equipment safely.</li> <li>• To practise some appropriate safety measures without direct supervision.</li> </ul>

40-60 Months Continued	Expressive Arts and Design	Exploring and Using Media and Materials	<ul style="list-style-type: none"> <li>• To explore what happens when they mix colours.</li> <li>• To experiment to create different textures.</li> <li>• To understand that different media can be combined to create new effects.</li> <li>• To manipulate materials to achieve a planned effect.</li> <li>• To construct with a purpose in mind, using a variety of resources.</li> <li>• To use simple tools and techniques competently and appropriately.</li> <li>• To select appropriate resources and adapt work where necessary.</li> <li>• To select tools and techniques needed to shape, assemble and join materials they are using.</li> </ul>
		Being Imaginative	<ul style="list-style-type: none"> <li>• To create simple representations of events, people and objects.</li> <li>• To choose particular colours to use for a purpose.</li> </ul>
ELG	Physical Development	Moving and Handling	<ul style="list-style-type: none"> <li>• To handle equipment and tools effectively, including pencils for writing.</li> </ul>
	Expressive Arts and Design	Exploring and Using Media and Materials	<ul style="list-style-type: none"> <li>• To safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> </ul>
		Being Imaginative	<ul style="list-style-type: none"> <li>• To use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.</li> </ul>