



Progression of Knowledge, Skills and Understanding - Design and Technology

	Year 1	Year 2
Design: To understand designing for purpose, to understand users and contexts	<ul style="list-style-type: none"> State what product they are designing. <ul style="list-style-type: none"> <i>Know and understand what designing means.</i> <i>Know what should be included in a design.</i> <i>Know the purpose of designing.</i> <i>Know and understand what a product is.</i> Describe what their products are for. <ul style="list-style-type: none"> <i>Know and understand what a product is.</i> <i>Know and understand what is meant by purpose and design brief.</i> Say who the intended user is for the product, themselves or someone else. <ul style="list-style-type: none"> <i>Know what is meant by target audience and why this is important when designing products for specific purposes/people.</i> Work confidently within a range of contexts. <ul style="list-style-type: none"> <i>Apply taught skills so far e.g. cutting, joining.</i> 	<ul style="list-style-type: none"> State what product they are designing and how it will be suitable for intended user. <ul style="list-style-type: none"> <i>Know and understand what designing means.</i> <i>Know what should be included in a design.</i> <i>Know the purpose of designing.</i> <i>Know and understand what a product is.</i> <i>Know and understand what is meant by suitable and why this is important.</i> <i>Know what is meant by intended user/target audience.</i> Describe what their product is for, how the product will work and use simple design criteria to develop ideas. <ul style="list-style-type: none"> <i>Know what is meant by a design brief/criteria, why it is important and how it should influence their design.</i> <i>Know what a product is.</i> Say who the intended user is for the product and to consider needs/preferences of users. <ul style="list-style-type: none"> <i>Know what is meant by target audience and why this is important when designing products for specific purposes/people.</i> Work confidently and independently in a range of contexts. <ul style="list-style-type: none"> <i>Be familiar with a range of existing products.</i> <i>Apply taught skills so far e.g. cutting, joining.</i>

To generate, develop, model and communicate their ideas	<ul style="list-style-type: none"> • Develop and communicate their ideas by talking and drawing. <ul style="list-style-type: none"> ○ <i>know and understand what is meant by purpose and function.</i> • Generate ideas from drawing on their own experiences. <ul style="list-style-type: none"> ○ <i>Be aware that some children may not have these experiences so learning needs to be relevant or come from existing products.</i> 	<ul style="list-style-type: none"> • Develop and communicate their ideas by talking and drawing. <ul style="list-style-type: none"> ○ <i>know and understand what is meant by purpose and function.</i> • Use knowledge of own experiences and that of existing products to help come up with ideas. <ul style="list-style-type: none"> ○ <i>Be familiar with existing products and their functionality.</i> • Model ideas by exploring materials and components by making templates and mock-ups. <ul style="list-style-type: none"> ○ <i>Know what different objects are made from and the properties of different materials.</i> ○ <i>Know what a mock up is and why they are an important part of D.T.</i> ○ <i>Know what a template is, how to use it and why they are important/needed.</i>
<u>Making:</u> To plan ready for making	<ul style="list-style-type: none"> • Select from a range of tools and equipment and begin to think about their choices. <ul style="list-style-type: none"> ○ <i>Know how to use different tools safely.</i> ○ <i>Be able to use the tools effectively e.g. scissors</i> ○ <i>Be aware of the design brief and intended outcomes.</i> ○ <i>Use their design effectively.</i> 	<ul style="list-style-type: none"> • Select from a range of tools, materials and components according to their characteristics. <ul style="list-style-type: none"> ○ <i>Know how to use different tools safely.</i> ○ <i>Be able to use the tools effectively e.g. scissors</i> ○ <i>Know what different objects are made from and the properties of different materials.</i> ○ <i>Be aware of the design brief, intended outcomes and target audience and link this to their decision making/choices.</i> ○ <i>Use their design effectively.</i> • Explain their choices. <ul style="list-style-type: none"> ○ <i>Know the design brief/ criteria, purpose and target audience and explain why their choices are suitable.</i> ○ <i>Understand what suitable and unsuitable means.</i>
To use practical skills and techniques to make a product	<ul style="list-style-type: none"> • Follow all safety procedures. <ul style="list-style-type: none"> ○ <i>Know what the safety procedures are.</i> ○ <i>Know why it is important.</i> • Begin to cut and shape materials and components. <ul style="list-style-type: none"> ○ <i>Know that different materials may cut differently.</i> ○ <i>Know what components means.</i> 	<ul style="list-style-type: none"> • Follow all safety procedures. <ul style="list-style-type: none"> ○ <i>Know what the safety procedures are.</i> ○ <i>Know why it is important.</i> • Measure, mark out, cut and shape materials and components. <ul style="list-style-type: none"> ○ <i>Know that different materials may cut differently.</i> ○ <i>Know what components means.</i> ○ <i>Know that materials have different properties and what they are.</i>

	<ul style="list-style-type: none"> ○ <i>Know that materials have different properties and what they are.</i> ● Use a range of materials and components. <ul style="list-style-type: none"> ○ <i>Know that materials have different properties.</i> ● Use a range of tools and equipment. <ul style="list-style-type: none"> ○ <i>Know how to use a variety of tools and equipment safely.</i> ● Begin to assemble, join and combine materials and components. <ul style="list-style-type: none"> ○ <i>Know how to assemble and what that means.</i> ○ <i>Know how to use materials to join.</i> 	<ul style="list-style-type: none"> ○ <i>Know how to use a rulers to measure accurately.</i> ● Use a range of materials and components. <ul style="list-style-type: none"> ○ <i>Know that materials have different properties and are suitable for different purposes.</i> ● Use a range of tools and equipment. <ul style="list-style-type: none"> ○ <i>Know how to use a variety of tools and equipment safely.</i> ● Assemble, join and combine materials and components. <ul style="list-style-type: none"> ○ <i>Know how to assemble and what that means.</i> ○ <i>Know how to use materials to join.</i> ● Use finishing techniques. <ul style="list-style-type: none"> ○ <i>Know what finishing techniques are.</i>
<u>Evaluation:</u> To evaluate and explore existing products	<ul style="list-style-type: none"> ● Think about what they like about and dislike about products. <ul style="list-style-type: none"> ○ <i>Know different parts of products.</i> ○ <i>Know what to comment on/features.</i> ● Think about what materials products are made from. <ul style="list-style-type: none"> ○ <i>Understand that objects are made from different materials.</i> ○ <i>Know and be able to name different materials and their properties.</i> 	<ul style="list-style-type: none"> ● Think about what they like about and dislike about products. <ul style="list-style-type: none"> ○ <i>Know different parts of products.</i> ○ <i>Know what to comment on/features.</i> ○ <i>Understand who the target audience is.</i> ● Think about what materials products are made from and why. <ul style="list-style-type: none"> ○ <i>Understand that objects are made from different materials.</i> ○ <i>Know and be able to name different materials and their properties.</i> ○ <i>Know that different materials have different properties and are therefore suitable for different purposes depending on these properties.</i>
To evaluate own ideas and products	<ul style="list-style-type: none"> ● Talk about own design and ideas. <ul style="list-style-type: none"> ○ <i>Know what a design is and what the different features are.</i> ● Begin to talk about and suggest how their product can be improved. <ul style="list-style-type: none"> ○ <i>Have an awareness of the design brief and target audience.</i> ● Evaluate according to the design brief/criteria. <ul style="list-style-type: none"> ○ <i>Know what the design brief and criteria are and how this influences the final product.</i> ● Test whether the structure is strong and stable and alter it if it isn't. <ul style="list-style-type: none"> ○ <i>Know what a structure is.</i> ○ <i>Know what strong and stable mean.</i> 	<ul style="list-style-type: none"> ● Make simple judgements about own design and ideas. <ul style="list-style-type: none"> ○ <i>Know what a design is and what the different features are.</i> ● Suggest how their products can be improved and why they would improve it. <ul style="list-style-type: none"> ○ <i>Know what the design brief and criteria are and how this influences the final product.</i> ● Evaluate according to the design brief/ criteria <ul style="list-style-type: none"> ○ <i>Know what a design brief is.</i> ● Evaluating the strength, stiffness and stability of own structure. <ul style="list-style-type: none"> ○ <i>Know what a structure is.</i> ○ <i>Know what stability means.</i>

<p><u>Technical Knowledge:</u></p> <p>To be able to make products work</p>	<ul style="list-style-type: none"> • To build structures. <ul style="list-style-type: none"> ○ <i>Know what a structure is and how it should stand.</i> • Think about how their structure could be made stronger, stiffer and more stable. <ul style="list-style-type: none"> ○ <i>Know about the properties of materials.</i> ○ <i>Know about different joining techniques e.g. gluing, taping.</i> ○ <i>Know about existing products and designs used to make structures stronger, stiffer and more stable.</i> • Think about/ explore using simple mechanisms e.g. levers and sliders. <ul style="list-style-type: none"> ○ <i>Know and understand what a mechanism is.</i> ○ <i>Know what a lever is and how it works.</i> ○ <i>Know what a slider is and how it works.</i> ○ <i>know that mechanisms are a collection of moving parts that work together as a machine to produce movement.</i> ○ <i>To know that a lever is something that turns on a pivot.</i> 	<ul style="list-style-type: none"> • Build structures knowing how they could be made stronger, stiffer and more stable. <ul style="list-style-type: none"> ○ <i>Know what a structure is and how it should stand.</i> ○ <i>Know about the properties of materials.</i> ○ <i>Know about different joining techniques e.g. gluing, taping.</i> • Explore and use mechanisms including levers, sliders, wheels, pivots and flaps. <ul style="list-style-type: none"> ○ <i>know some real-life objects that contain mechanism.</i> • Explore and use mechanisms to create movement such as wheels and axles in own products. <ul style="list-style-type: none"> ○ <i>Know and understand what a mechanism is.</i> ○ <i>Know what a lever is and how it works.</i> ○ <i>Know what a slider is and how it works.</i> ○ <i>know that mechanisms are a collection of moving parts that work together as a machine to produce movement.</i> ○ <i>know that there is always an input and output in a mechanism (an input is the energy that is used to start something working and an output is the movement that happens as a result of the input).</i> ○ <i>To know that a linkage mechanism is made up of a series of levers.</i> ○ <i>To know that a lever is something that turns on a pivot.</i> ○ <i>know some real-life objects that contain mechanisms.</i>
<p><u>Cooking and Nutrition:</u></p> <p>To understand and know where food comes from</p>	<ul style="list-style-type: none"> • Know that all food comes from plants or animals. <ul style="list-style-type: none"> ○ <i>Know what food is.</i> ○ <i>Know what plants and animals are.</i> 	<ul style="list-style-type: none"> • Know that all food comes from plants or animals. • Understand food has to be farmed, grown or caught. <ul style="list-style-type: none"> ○ <i>Know what food is.</i> ○ <i>Know what plants and animals are.</i> ○ <i>Know that some food is modified and may contain different ingredients.</i>

To understand the principles of a healthy and varied diet.	<ul style="list-style-type: none"> • Understand that everyone should eat their 5 a day. <ul style="list-style-type: none"> ○ <i>Know what fruit and vegetables are.</i> ○ <i>Know what is meant by '5 a day'.</i> 	<ul style="list-style-type: none"> • Understand the importance of eating 5 a day every day. • Name and sort foods into the 5 food groups. <ul style="list-style-type: none"> ○ <i>Know what fruit and vegetables are.</i> ○ <i>Know what is meant by '5 a day'.</i> ○ <i>Know what the 5 food groups are.</i> ○ <i>Know what is meant by healthy and unhealthy.</i> ○ <i>Know what is meant by balanced diet.</i>
To prepare dishes hygienically and safely.	<ul style="list-style-type: none"> • Begin to learn how to use techniques such as cutting, peeling and grating. <ul style="list-style-type: none"> ○ <i>Know how to use the equipment safely.</i> • Understand how to prepare simple dishes safely and hygienically, without using a heat source. <ul style="list-style-type: none"> ○ <i>Know what is meant by hygiene.</i> ○ <i>Know how to use the equipment safely.</i> ○ <i>Use safe and hygienic practice.</i> 	<ul style="list-style-type: none"> • Know how to use techniques such as cutting, peeling and grating. <ul style="list-style-type: none"> ○ <i>Know how to use the equipment safely.</i> ○ <i>How when to use different cooking tools.</i> • Understand how to prepare simple dishes safely and hygienically, without using a heat sources. <ul style="list-style-type: none"> ○ <i>Know what is meant by hygiene.</i> ○ <i>Know how to use the equipment safely.</i> ○ <i>Use safe and hygienic practice.</i>