



Upton Noble – Design Technology Knowledge and Skills Progression

	EYFS	KS1	Lower KS2	Upper KS2
Key Objectives		<p>YEAR 1</p> <ul style="list-style-type: none"> -Can design purposeful, functional, appealing products for themselves and other users based on design criteria. -Can generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate, information and communication technology. -Can select from and use a range of tools and equipment to perform practical tasks. For example: cutting, shaping, joining and finishing. -Can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. -Can explore and evaluate a range of existing products. -Can evaluate their ideas and products against design criteria. -Can build structures, exploring how they can be made stronger, stiffer and more stable. -Can explore and use mechanisms. For example: levers, slides, wheels, axles in their products. -Can use the basic principles of a healthy and varied diet to prepare dishes. -Can understand where food comes from. 	<p>YEAR 3</p> <ul style="list-style-type: none"> - Can 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. -Can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. -Can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. -Can 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. -Can investigate and analyse a range of existing products. -Can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. -Can apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -Can understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] -Can apply their understanding of computing to program, monitor and control their products. -Can understand and apply the principles of a healthy and varied diet. -Can understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	<p>YEAR 5</p> <ul style="list-style-type: none"> -Can 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. - Can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. - Can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. - Can 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. -Can investigate and analyse a range of existing products. -Can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. -Can understand how key events and individuals in design and technology have helped shape the world. -Can apply their understanding of computing to program, monitor and control their products.

		<p style="text-align: center;">YEAR 2</p> <ul style="list-style-type: none"> - Can generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate, information and communication technology. -Can select from and use a range of tools and equipment to perform practical tasks. For example: cutting, shaping, joining and finishing. -Can select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. -Can explore and evaluate a range of existing products. -Can evaluate their ideas and products against design criteria. -Can build structures, exploring how they can be made stronger, stiffer and more stable. -Can explore and use mechanisms. For example: levers, slides, wheels, axles in their products. -Can use the basic principles of a healthy and varied diet to prepare dishes. -Can understand where food comes from. 	<p style="text-align: center;">YEAR 4</p> <ul style="list-style-type: none"> - Can 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. -Can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. -Can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. -Can 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. -Can investigate and analyse a range of existing products. -Can evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. -Can understand how key events and individuals in design and technology have helped shape the world. -Can apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -Can understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] -Can apply their understanding of computing to program, monitor and control their products. -Can understand and apply the principles of a healthy and varied diet. -Can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. 	<p style="text-align: center;">YEAR 6</p> <ul style="list-style-type: none"> - Can 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. -Can generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. -Can select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. -Can 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. -Can investigate and analyse a range of existing products. -Can understand how key events and individuals in design and technology have helped shape the world. -Can apply their understanding of how to strengthen, stiffen and reinforce more complex structures. -Can understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] -Can understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] -Can apply their understanding of computing to program, monitor and control their products. Children can understand and apply the principles of a healthy and varied diet. -Can prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. -Can understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Design	EYFS	YEAR 1	YEAR 3	YEAR 5
	YEAR 2	YEAR 4	YEAR 6	
	<p>-Sometimes with adult support I can share my thoughts and ideas before creating.</p> <ul style="list-style-type: none"> -Can create a simple design on paper talking about my choices of materials. -Can use talk to share my thoughts before creating. 	<ul style="list-style-type: none"> -Can use my knowledge of existing products and own experience to generate ideas. -Can design products that have a purpose and are aimed at an intended user. -Can explain how my product will look and work through talking and simple annotated drawings. -Can understand and follow simple design criteria. -Can work in a range of relevant contexts: For example: imaginary, story based, home, school and the wider environment. 	<ul style="list-style-type: none"> - Can identify the design features of my product that will appeal to intended customers. -Can use my knowledge of a broad range of existing products to help generate my ideas. -Can design innovative and appealing products that have a clear purpose and are aimed at a specific user. -Can explain how particular parts of my product works. -Can use annotated sketches and cross-sectional drawings to develop and communicate my ideas. -Can explore different initial ideas before coming up with a final design. -Can start to explain my choice of materials and components including function and aesthetics. -Can test ideas out through using prototypes. -Can use computer aided design to develop and communicate my ideas. -Can develop and follow simple design criteria. -Can work in a broader range of contexts, for example: entertainment, the home, school, leisure, food industry and the wider environment. 	<ul style="list-style-type: none"> - Can 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. -Can design products that have a clear purpose and indicate the design features of my products that will appeal to the intended user. -Can explain how particular parts of my product works. -Can generate a range of design ideas and clearly communicate final designs.
	<ul style="list-style-type: none"> -Can use my knowledge of existing products and own experience to generate ideas. -Can design products that have a purpose and are aimed at an intended user. -Can explain how my product will look and work through talking and simple annotated drawings. -Can design models using simple computer software. -Can plan and test ideas using templates and mock ups. -Can understand and follow simple design criteria. -Can work in a range of relevant contexts: For example: imaginary, story based, home, school and the wider environment. 	<ul style="list-style-type: none"> - Can identify the design features of my product that will appeal to intended customers. -Can use my knowledge of a broad range of existing products to help generate my ideas. -Can design innovative and appealing products that have a clear purpose and are aimed at a specific user. -Can explain how particular parts of my product works. -Can use annotated sketches and cross-sectional drawings to develop and communicate my ideas. -When designing can explore different initial ideas before coming up with a final design. -When planning, can start to explain my choice of materials and components including function and aesthetics. -Can test ideas out through using prototypes. -Can use computer aided design to develop and communicate my ideas. -Can develop and follow simple design criteria. -Can work in a broader range of contexts, for example: entertainment, the home, school, leisure, food industry and the wider environment. 	<ul style="list-style-type: none"> - Can use my knowledge of a broad range of existing products to help generate my ideas. -Can design products that have a clear purpose and indicate the design features of my products that will appeal to the intended user. -Can explain how particular parts of my product works. -Can use annotated sketches and cross-sectional drawings and exploded diagrams (possible including computer-aided design) to develop and communicate my ideas. -Can generate a range of design ideas and clearly communicate final designs. -Can consider the availability and costings of resources when planning out designs. -Can work in broad range of relevant contexts. For example: conservation, the home, school, leisure, culture, enterprise, industry and the wider environment. 	

Make	<p style="text-align: center;">EYFS</p> <p>-Can use natural materials to create something new using my imagination.</p> <p>-With support I can make simple fairy cakes as part of a celebration.</p> <p>-Can select my own resource and joining material to create a design outcome.</p> <p>- Can use knives to cut soft fruit and toothpicks/skewers to join.</p> <p>- Can work with adult supervision to bake bread and gingerbread men.</p>	<p style="text-align: center;">YEAR 1</p> <p>- With support, I can follow a simple plan or recipe.</p> <p>-Beginning to select from a range of hand tools and equipment. For example: scissors, graters, zesters, safe knives, juicer.</p> <p>-Can select from a range of materials, textiles and components according to their characteristics.</p> <p>-Can learn how to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures.</p> <p>-Can use a range of materials and components including textiles and food ingredients.</p> <p>-With help, can measure and mark out.</p> <p>- Can cut, shape and score materials sometimes with help.</p> <p>-Can assemble, join and combine materials, components or ingredients.</p> <p>*Can cut, shape, join fabric to make a simple product, sometimes with support.</p> <p>*Can use a basic running stitch. For example: Binca.</p> <p>-Beginning to use simple finishing techniques to improve the appearance of my product. For example: adding simple decorations.</p> <p>-Can cut, grate and peel ingredients, including measuring and weighing ingredients including measuring cups.</p>	<p style="text-align: center;">YEAR 3</p> <p>- Can plan with increasing confidence, carefully select from a range of tools and equipment and explain to others.</p> <p>-Can place the main stages of making in a systematic order.</p> <p>-Can learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures.</p> <p>-Can use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components.</p> <p>-With growing independence, I can measure and mark out to the nearest cm, and mm.</p> <p>-Can cut, shape and score materials with some degree of accuracy.</p> <p>-Can assemble, join and combine materials and components with some degree of accuracy.</p> <p>-Can join textiles with an appropriate sewing technique.</p> <p>-Can begin to select and use different and appropriate finishing techniques to improve the appearance of my product such as hemming, tie-dye, fabric paints and digital graphics.</p>	<p style="text-align: center;">YEAR 5</p> <p>- Can independently plan by suggesting what to do next. with growing confidence</p> <p>-Can select from a wide range of tools and equipment, explaining my choices.</p> <p>-Can select from a range of materials and components according to their functional properties and aesthetic qualities.</p> <p>-Can learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene rules.</p> <p>- Can use a full range of materials and components, including construction materials and kits, textiles and mechanical components.</p> <p>-Can assemble, join and combine materials and components with accuracy.</p> <p>-Can join textiles using a greater variety of stitches such as: backstitch, whip stitch and blanket stitch.</p> <p>-Can refine the finish using techniques to improve the appearance of my product such as sanding or a more precise scissor cut after roughly cutting out a shape.</p>
-------------	---	--	--	---

		<p style="text-align: center;">YEAR 2</p> <ul style="list-style-type: none"> -With support, can follow a simple plan or recipe. -Beginning to select from a range of hand tools and equipment. For example: scissors, graters, zesters, safe knives, juicer. -Can select from a range of materials, textiles and components according to their characteristics. -Can learn how to use hand tools and kitchen equipment safely and appropriately and learn to follow hygiene procedures. -Can use a range of materials and components including textiles and food ingredients. -With help, can measure and mark out. -* Can cut, shape and score materials with some accuracy. -Can assemble, join and combine materials, components or ingredients. - Can cut, shape, join fabric to make a simple product. - Can use a basic running stitch. - Beginning to use simple finishing techniques to improve the appearance of my product. For example: adding simple decorations. - Can cut, grate and peel ingredients, including measuring and weighing ingredients including measuring cups. 	<p style="text-align: center;">YEAR 4</p> <ul style="list-style-type: none"> - Can select from a range of materials and components according to their functional properties and aesthetic qualities. -Can place the main stages of making in a systematic order. -Can learn to use a range of tools and equipment safely, appropriately and accurately and learn to follow hygiene procedures. -Can use a wider range of materials and components, including construction materials and kits, textiles and mechanical and electrical components. -With growing independence, can measure and mark out to the nearest cm, and mm. -Can cut, shape and score materials with some degree of accuracy. -Can assemble, join and combine materials and components with some degree of accuracy. -Can measure, cut, shape and join fabric with some degree of accuracy to make a simple product. -Can join textiles with an appropriate sewing technique. -Can begin to select and use different and appropriate finishing techniques to improve the appearance of my product such as hemming, tie-dye, fabric paints and digital graphics. 	<p style="text-align: center;">YEAR 6</p> <ul style="list-style-type: none"> - Can independently plan by suggesting what to do next. -With growing confidence can select from a wide range of tools and equipment, explaining my choices. - Can select from a range of materials and components according to their functional properties and aesthetic qualities. -Can create step-by –step plans as a guide to marking. -Can learn to use a range of tools and equipment safely and appropriately and learn to follow hygiene rules. -Can independently take exact measurements and mark out within 1mm. -Can cut a range of materials with precision and accuracy -Can shape and score materials and components with accuracy. -Can assemble, join and combine materials and components with accuracy. -Can refine the finish using techniques to improve the appearance of my product such as sanding or a more precise scissor cut after roughly cutting out a shape.

Evaluate	EYFS	YEAR 1	YEAR 3	YEAR 5
	<ul style="list-style-type: none"> -Can tell others what I have made. -With support I am beginning to say what has gone well. - Can tell others what I have made. -Can tell others what has gone well. -Am beginning to think about what I would do differently next time. 	<ul style="list-style-type: none"> -Can begin to explore and evaluate existing products mainly through discussions and comparisons. -Can begin to explain positives and things to improve for existing products. -Can begin to explore what materials products are made from. -Can begin to talk about my design ideas and what I am making. -Can begin to evaluate my product and idea against simple design criteria. 	<ul style="list-style-type: none"> -Can explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purposes. -Can explain what materials/ingredients products are made from and suggest reasons for this. -Can consider my design criteria as I make progress and am willing to alter my plans, sometimes considering the views of others if this helps me to improve my product. -Can evaluate my product against my original design criteria. -Can evaluate the key events, including technological developments and designs of individuals in design and technology that have helped shape the world. 	<ul style="list-style-type: none"> -Can critically evaluate the quality of design, manufacture and fitness of purpose of products as I design and make. -Can evaluate my ideas and products against the original design criteria, making changes as needed.
		YEAR 2	YEAR 4	YEAR 6
		<ul style="list-style-type: none"> - Can explore and evaluate existing products mainly through discussions and comparison. -Can explain positives and things to improve for existing products. -Can explore what materials products are made from. -Can talk about my design ideas and what I am making. -Can evaluate my product and idea against simple design criteria. 	<ul style="list-style-type: none"> -Can explore and evaluate existing products, explaining the purpose of the product and whether it is designed well to meet the intended purposes. -Can explain what materials/ingredients products are made from and suggest reasons for this. -Can consider my design criteria as I make progress and am willing to alter my plans, sometimes considering the views of others if this helps me to improve my product. -Can evaluate my product against my original design criteria. -Can evaluate the key events: including technological developments and designs of individuals in design and technology that have helped shape the world. 	<ul style="list-style-type: none"> -Can complete detailed competitor analysis of other products on the market. -Can critically evaluate the quality of design, manufacture and fitness of purpose of products as I design and make. -Can evaluate my ideas and products against the original design criteria, making changes as needed.