



Design and Technology Substantive Knowledge Progression



Textiles

EYFS	<ul style="list-style-type: none">• Developed threading and weaving skills.• Develop their fine motor skills so that they can use a range of tools competently, safely and confidently.• Practice and apply weaving skills to specific materials.• Created a product using a design.• Reflected on what they have achieved.
Year 1	<ul style="list-style-type: none">• Know joining technique means connecting two pieces of materials.• Know that there are various methods of joining fabric e.g., glue, pins or staples.• Know that a template is used to cut out the same shape multiple times.• Know that a design is useful to see how an idea will look.
Year 2	<ul style="list-style-type: none">• Know that sewing is a method of joining fabric.• Know a running stitch is a style of sewing.• Know the importance of tying a knot after sewing the final stitch.
Year 3	
Year 4	<ul style="list-style-type: none">• Know that a fastening is something that holds two pieces of material together.• Know that different fastening types are useful for different purposes.
Year 5	<ul style="list-style-type: none">• Know that a blanket stitch is useful to reinforce edges of fabric or join two fabrics together.• Know small, neat stitches which are pulled taut are important to ensure the toy is strong and holding stuffing securely.
Year 6	



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Mechanisms

EYFS	<ul style="list-style-type: none"> • Know how to use a range of basic tools competently, safely and confidently. • know how to explore a range of materials and use senses to explore and investigate them e.g. construction kits: wheels and axles have movable parts. • know how to construct using a wider range of construction kits using different techniques to fasten and connect things together. • know that different objects and materials can represent things in my pretend play: e.g. I can use a cereal box to represent my house; or use a 3D block as a chair. • know and use appropriate vocabulary to name and describe my models by talking and explaining about my model, how it works and what materials I have used. • know more about using a range of different media (natural and manmade) to construct basic models to represent transport vehicles.
Year 1	<ul style="list-style-type: none"> • A wheel needs to be round to rotate. • A wheel must be attached to a rotating axle to move. • An axle moves within an axle holder. • A frame of a vehicle (chassis) needs to be balanced.
Year 2	<ul style="list-style-type: none"> • Know that sewing is a method of joining fabric. • Know a running stitch is a style of sewing. • Know the importance of tying a knot after sewing the final stitch.
Year 3	
Year 4	<ul style="list-style-type: none"> • Know that products change and evolve over time. • Know that aesthetics means how an object or product looks in design and technology. • Know that a template is a stencil you can use to help you draw the same shape accurately. • Know that a birds-eye view means a view from a high angle (as if a bird in flight). • Know that graphics are images which are designed to explain or advertise something. • Know that it is important to assess and evaluate design ideas and models against a list of design criteria.
Year 5	
Year 6	<ul style="list-style-type: none"> • Know that the mechanism in an automata uses a system of cams, axles and followers. • Know that different shaped cams produce different outputs. • Know that an automata is a hand-powered mechanical toys. • Know that a cross-sectional diagram shows the inner workings of a product.



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Cooking and Nutrition

EYFS	<ul style="list-style-type: none"> • Know the names of different types of fruit and vegetables. • Know how to safely use a knife to cut up foods into smaller pieces. • Know that different ingredients can be put together to make meal. • Know it is important to wash hands before preparing food. • Know different equipment can be used to cook equipment.
Year 1	<ul style="list-style-type: none"> • Understand the difference between fruit and vegetables. • Know a blender mixes ingredients together into a liquid. • Know vegetables grow either above or below the ground. • Know some foods typically known as vegetables are actually fruits (e.g., cucumber) • Know fruits grow on trees or vines. • Know fruits have seeds and vegetables do not. • Know vegetables can come from different parts of a plant.
Year 2	<ul style="list-style-type: none"> • Know what 'hidden sugars' are. • Know where to find the nutritional information on a drinks container, • Know that there are five food groups, made up of: <ul style="list-style-type: none"> ○ fruit and vegetables ○ starchy carbohydrates ○ proteins ○ dairy ○ oils and spreads • Know roughly how much of each food group I should eat each day. • Know that the most ideal ingredient combinations for my wrap will contain foods from more than one food group. • Know how to prepare food safely using the correct tools.
Year 3	<ul style="list-style-type: none"> • Know that not all fruits and vegetables can be grown in the UK. • Know that climate affects food growth. • Know that vegetables and fruit grow in certain seasons. • Know that cooking instructions are known as a 'recipe'. • Know that imported food is food that has been brought into the country.
Year 4	
Year 5	<ul style="list-style-type: none"> • Know where meat comes from.

	<ul style="list-style-type: none">• Know that I can adapt a recipe to make it healthier by substituting ingredients.• Know that I can use a nutritional calculator• Know that cross-contamination means that bacteria and germs have been passed onto ready to eat foods.
Year 6	<ul style="list-style-type: none">• Know that many countries have national dishes which are recipes associated with that country.• Know that processed food means food that has been put through multiple changes in a factory.• Know it's important to wash fruit and vegetables before eating to remove any dirt or insecticides.



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Woodcraft

EYFS	
Year 1	
Year 2	<ul style="list-style-type: none">• know the purpose of a structure.• know the importance of a clear design criteria.• know wood can be changed in different ways.• know how to spilt wood into small fractions.• know some wood can be flexible and some wood can be rigid.
Year 3	<ul style="list-style-type: none">• Know how to change the thickness of a stick.• Know how to change the shape of a stick.• Know how to use a knife safely to create a point on the end of a stick.• Know what a fore hand grip is.
Year 4	
Year 5	<ul style="list-style-type: none">• Know a drill is a machine with a rotating cutting tip used for making holes.• Know a crook knife is a woodworking knife with a curved end.• Know that the fore hand grip can be used to remove any sharp bits from the wood.• Know how to use a tape measure to measure in centimeters.• Know where to place the legs to make the stool secure.• Know how to safely use tools such as knife and drill.
Year 6	



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Electrical Systems

EYFS	
Year 1	
Year 2	
Year 3	
Year 4	<ul style="list-style-type: none">• Know that electrical conductors are materials which electricity passes through.• Know that electrical insulators are materials that electricity cannot pass through.• Know that a battery contains stored electricity that can be used to power products.• Know that an electrical circuit must be completed for electricity to flow.• Know that a switch can be used to complete and break an electrical circuit.
Year 5	
Year 6	<ul style="list-style-type: none">• Know that 'form' means the shape and appearance of an object.• Know that 'fit for purpose' means that a product works how it should and is easy to use.• Know the importance of 'form follows function' when designing: the product must be designed primarily with the function in mind.• Know the difference between 'form' and 'function'.• Know that 'form over purpose' means that a product looks good but does not work very well.• Know the diagram perspectives 'top view', 'side view' and 'back'.



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Digital World

EYFS	
Year 1	
Year 2	
Year 3	<ul style="list-style-type: none">• Know that in programming a 'loop' is code that repeats something again and again until stopped.• Know that a Micro:bit is a pocket-sized, codeable computer.• Know how to write a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm.
Year 4	
Year 5	
Year 6	