



DT Skills Progression F2 – Y6

Structures

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Structures	<ul style="list-style-type: none"> • Think and talk about what they are going to make before they do it. • Plan what they are going to make by drawing it first. • Use a tick list to say what resources they are going to need to make their product or outcome. 	<ul style="list-style-type: none"> • Learn the importance of clear design criteria. • Include individual preferences and requirements in a design. 	<ul style="list-style-type: none"> • Generate and communicate ideas using sketching and modelling. • Learn about different types of structures found in the natural world and in everyday objects. 	<ul style="list-style-type: none"> • Design a structure e.g. a castle or one linked to the learning project, with key features to appeal to a specific person or purpose. • Draw and label a design for the structure using 2D shapes, labelling: <ul style="list-style-type: none"> - the 3D shapes that will create the features - the materials needed and its colours. 	<ul style="list-style-type: none"> • Design a stable structure, linked to the learning project or scheme unit, that is aesthetically pleasing, and select materials to create a desired effect. • Build frame structures designed to support weight. 	<ul style="list-style-type: none"> • Design a stable structure that is able to support weight. • Create a frame structure with a focus on triangulation. 	<ul style="list-style-type: none"> • Design a scenario featuring a variety of different structures, considering how the structures will be used, and what are effective and ineffective designs based on prior knowledge and experience.
Make: Structures	<ul style="list-style-type: none"> • Choose the resources needed for the activity. • Handle simple hand tools and equipment effectively. • Safely use and explore a variety of materials, 	<ul style="list-style-type: none"> • Make stable structures from card, tape and glue. • Follow instructions to cut and assemble the supporting structure of a windmill, lighthouse or 	<ul style="list-style-type: none"> • Make a structure according to given design criteria. • Create joints and structures from paper or card and tape or glue. 	<ul style="list-style-type: none"> • Construct a range of 3D geometric shapes using nets. • Create special features for individual designs. • Make facades from a range of 	<ul style="list-style-type: none"> • Create a range of different shaped frame structures. • Make a variety of free standing frame structures of different shapes and sizes. • Select appropriate 	<ul style="list-style-type: none"> • Make a range of different shaped beam bridges. • Use triangles to create truss bridges that span a given distance and support a load. 	<ul style="list-style-type: none"> • Build a range of structures drawing upon new and prior knowledge of structures. <ul style="list-style-type: none"> • Measure, mark and cut wood to create a range of structures.

	<p>tools and techniques, experimenting with colour, design, texture, form and function.</p> <ul style="list-style-type: none"> • Select appropriate materials to make my outcome based on the given task. • Use junk modelling materials to create outcomes. 	<p>chosen cylindrical structure.</p> <ul style="list-style-type: none"> • Make functioning turbines and axles which are assembled into a main supporting structure. 		<p>recycled materials.</p>	<p>materials to build a strong structure.</p> <ul style="list-style-type: none"> • Reinforce corners to strengthen a structure. • Learn to create different textural effects with materials. • Use a hot glue gun safely to create their structure. 	<ul style="list-style-type: none"> • Build a wooden bridge structure independently measuring and marking wood accurately. • Select appropriate tools and equipment for particular tasks. • Use the correct techniques to saw safely. • Identify where a structure needs reinforcement and use card corners for support. 	<ul style="list-style-type: none"> • Use a range of materials to reinforce and add decoration to structures.
<p>Evaluate Structures</p>	<ul style="list-style-type: none"> • Describe what is liked about a creation and whether it works well. • Suggest improvements that could be made after testing. 	<ul style="list-style-type: none"> • Evaluate a structure according to the design criteria, testing whether the structure is strong and stable and altering it if it isn't. • Suggest points for improvements (this may be verbal). 	<ul style="list-style-type: none"> • Explore the features of different structures. • Compare the stability of different shapes. • Test the strength of own structures. • Identify the weakest part of a structure. • Evaluating the strength, 	<ul style="list-style-type: none"> • Evaluate own work and the work of others based on the finished product and in comparison to the original design. • Suggest points for modification in the individual design. 	<ul style="list-style-type: none"> • Evaluate structures made by the class. • Describe what characteristics of a design and construction made it the most effective. • Consider effective and ineffective designs and give reasons. 	<ul style="list-style-type: none"> • Adapt and improve own bridge structure by identifying points of weakness and reinforcing them as necessary. • Suggest points for improvements for own bridges and those designed by others. 	<ul style="list-style-type: none"> • Improve a design plan based on peer evaluation. • Test and adapt a design to improve it as it is developed. • Identify what makes a successful structure.

			stiffness and stability of own structure (may be verbal).				
Technical knowledge Structures	<ul style="list-style-type: none"> • Balance blocks to build a bridge. • Show increasing control over an object in pushing, patting. • Push and pull apart larger construction pieces, such as, Duplo. • Begin to test out materials for building houses and castles. • Explore materials for building houses. • Explore which materials to use when building bridges and structures that would help meet the criteria e.g. fit a billy goat on the bridge and a troll underneath. 	<ul style="list-style-type: none"> • Describe the purpose of structures, including windmills and lighthouses. • Learn how to turn 2D nets into 3D structures. • Learn that the shape of materials can be changed to improve the strength and stiffness of structures. • Understand that cylinders are a strong type of structure that are often used for windmills and lighthouses. • Understand that windmill turbines use wind to turn and make the machines inside work. 	<ul style="list-style-type: none"> • Identify natural and man-made structures. • Identify when a structure is more or less stable than another. • Know that shapes and structures with wide, flat bases or legs are the most stable. • Understand that the shape of a structure affects its strength. • Use the vocabulary: strength, stiffness and stability. • Know that materials can be manipulated to improve strength and stiffness. • Building a strong and stiff structure by 	<ul style="list-style-type: none"> • Identify features of a structure e.g. a castle. <ul style="list-style-type: none"> • Identify suitable materials to be selected and used for a structure, considering weight, compression, tension. • Extend the knowledge of wide and flat based objects being more stable. • Understand the terminology of strut, tie, span, beam. • Understand the difference between frame and shell structure. 	<ul style="list-style-type: none"> • Learn what pavilions are (amongst other structures) and their purposes. • Build on prior knowledge of net structures and broadening knowledge of frame structures. • Learn that architects consider light, shadow and patterns when designing. • Implement frame and shell structure knowledge. • Consider effective and ineffective designs. 	<ul style="list-style-type: none"> • Explore how to create a strong beam. • Identify arch and beam bridges and understand the terms: compression and tension. • Identify stronger and weaker structures with reasons. • Find different ways to reinforce structures. • Understand how triangles can be used to reinforce bridges. • Articulate the difference between beam, arch, truss and suspension bridges. 	<ul style="list-style-type: none"> • Know that structures can be strengthened by manipulating materials and shapes. • Identify the shell structure in everyday life in cars, aeroplanes, tins and cans. • Understand man-made and natural structures.

		<ul style="list-style-type: none"> • Understand that axles are used in structures and mechanisms to make parts turn in a circle. • Develop awareness of different structures for different purposes. 	folding paper (Stixx machine).				
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DT Skills Progression F2 – Y6

Mechanisms

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Mechanisms	<ul style="list-style-type: none"> • Represent own ideas, thoughts and feelings through design and technology. 	<ul style="list-style-type: none"> • Explain how to adapt mechanisms, using bridges or guides to control the movement • Design a moving story book for a given audience. • Design a vehicle that includes wheels, axles and axle holders, which 	<ul style="list-style-type: none"> • Create class design criteria for a moving creature. • Design a moving creature for a specific audience in accordance with design criteria • Select a suitable linkage system to produce the desired motions. • Design a wheel. 	<ul style="list-style-type: none"> • Design a product which uses a pneumatic system. • Develop design criteria from a design brief. • Learn that different types of drawings are used in design to explain ideas clearly. Generate ideas using thumbnail sketches and	<ul style="list-style-type: none"> • Design a shape that reduces air resistance. • Draw a net to create a structure from. • Choose shapes that increase or decrease speed as a result of air resistance. • Personalise a design. 	<ul style="list-style-type: none"> • Design a pop-up book which uses a mixture of structures and mechanisms. • Name each mechanism, input and output accurately. • Storyboard ideas for a book. 	<ul style="list-style-type: none"> • After experimenting with a range of cams, create a design for an automaton toy based on a choice of cam to create a desired movement. • Understand how linkages change the direction of a force.

		<p>will allow the wheels to move.</p> <ul style="list-style-type: none"> • Create clearly labelled drawings which illustrate movement. 	<ul style="list-style-type: none"> • Select appropriate materials based on their properties. 	<p>exploded diagrams.</p>			<ul style="list-style-type: none"> • Make things move at the same time.
<p>Make:</p> <p>Mechanisms</p>	<ul style="list-style-type: none"> • Use a split pin to create a mechanism that opens and closes (a simple hinge). 	<ul style="list-style-type: none"> • Follow a design to create moving models that use levers and sliders. • Adapt simple mechanisms. 	<ul style="list-style-type: none"> • Make linkages using card for levers and split pins for pivots. • Experiment with linkages adjusting the widths, lengths and thicknesses of card used. • Cut and assemble components neatly. • Select materials according to their characteristics. • Follow a design brief. 	<ul style="list-style-type: none"> • Create a pneumatic system to make a desired motion. • Build secure housing for a pneumatic system. • Use syringes and balloons to create different types of pneumatic systems to make a functional and appealing pneumatic product e.g. a toy. • Select materials due to their functional and aesthetic characteristics. • Manipulate materials to create different effects by 	<ul style="list-style-type: none"> • Measure, mark, cut and assemble with increasing accuracy. • Make a model based on a chosen design. 	<ul style="list-style-type: none"> • Follow a design brief to make a pop-up book, neatly and with a focus on accuracy. • Make mechanisms and/or structures using sliders, pivots and folds to produce movement. • Use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result. 	<ul style="list-style-type: none"> • Measure, mark and check the accuracy of materials required. • Measure, mark and cut components accurately using a ruler and scissors. • Use a craft knife safely to cut shapes accurately. • Use a hand drill safely to drill holes accurately in the project piece. • Assemble components accurately to make a stable frame. • Understand that for the frame to

				cutting, creasing, folding, weaving.			function effectively the components must be cut accurately and the joints of the frame secured at right angles. <ul style="list-style-type: none"> • Select appropriate materials for joining including the speed at which the glue needs to dry/set.
Evaluate Mechanisms	<ul style="list-style-type: none"> • Use what has been learnt about media and materials in original ways, thinking about uses and purposes. 	<ul style="list-style-type: none"> • Test a finished product, seeing whether it moves as planned and if not, explaining why and how it can be fixed (verbally). • Review the success of a product by testing it with its intended audience. • Test mechanisms e.g. identifying what stops wheels from turning. 	<ul style="list-style-type: none"> • Evaluate own designs against design criteria. • Use peer feedback to modify a final design. • Evaluate different designs. • Test and adapt a design. 	<ul style="list-style-type: none"> • Use the views of others to improve own designs. • Test and modify the outcome, suggesting improvements. 	<ul style="list-style-type: none"> • Evaluate the speed of a final product based on the effect of shape on speed and the accuracy of workmanship on performance. 	<ul style="list-style-type: none"> • Evaluate the work of others and receive constructive feedback on own work. • Suggest points for improvement for own design and others designs. 	<ul style="list-style-type: none"> • Evaluate the work of others and receive constructive feedback on own work • Apply points of improvement highlighted. • Describe changes they would make if they were to do the project again.

		<ul style="list-style-type: none"> • Know that a wheel needs an axle in order to move. 					
Technical Knowledge Mechanisms	<ul style="list-style-type: none"> • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. • Know the properties of some materials and which might be suitable for a certain job. 	<ul style="list-style-type: none"> • Learn that levers and sliders are mechanisms and can make things move. • Identify whether a mechanism is a lever or slider and determine what movement the mechanism will make. • Use the vocabulary up, down, left, right, vertical and horizontal to describe movement. • Identify what mechanism makes a toy or vehicle roll forwards (through exploration). • Learn that for a wheel to move it must be 	<ul style="list-style-type: none"> • Learn that mechanisms are a collection of moving parts that work together in a machine. • Learn that there is an input and output in a mechanism. • Identify mechanisms in everyday objects. • Learn that a lever is something that turns on a pivot. • Learn that a linkage is a system of levers that are connected by pivots. • Explore wheel mechanisms. • Learn how axels help wheels to move a vehicle. 	<ul style="list-style-type: none"> • Understand how pneumatic systems work. • Learn that mechanisms are a system of parts that work together to create motion. • Understand that pneumatic systems can be used as part of a mechanism. • Learn that pneumatic systems force air over a distance to create movement. 	<ul style="list-style-type: none"> • Learn that products change and evolve over time. • Learn that all moving things have kinetic energy. • Understand that kinetic energy is the energy that something (an object or person) has by being in motion. 	<ul style="list-style-type: none"> • Know that an input is the motion used to start a mechanism. • Know that output is the motion that happens as a result of starting the input. • Know that mechanisms control movement. • Describe mechanisms that can be used to change one kind of motion into another. 	<ul style="list-style-type: none"> • Use a bench hook to saw safely and effectively. • Explore cams and learn that different shaped cams produce different follower movements. • Explore types of motions and the direction of a motion.

		attached to an axle.					
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DT Skills Progression F2 – Y6

Electrical Systems

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Electrical Systems	N/A	N/A	N/A	<ul style="list-style-type: none"> • Design a product that works using static electricity e.g. a game, including the instructions for use. • Identify design criteria and a target audience. 	<ul style="list-style-type: none"> • Design a torch, giving consideration to the target audience and creating both design and success criteria, focusing on features of individual design ideas. 	<ul style="list-style-type: none"> • Design an electronic greetings card with a simple electrical control circuit. • Create a labelled design showing positive and negative parts in relation to the LED and the battery. 	<ul style="list-style-type: none"> • Design a steady hand game identifying and naming the components required. • Draw a design from three different perspectives. • Generate ideas through sketching and discussion. • Model ideas through the use of prototypes.
Make Electrical Systems	N/A	N/A	N/A	<ul style="list-style-type: none"> • Make an electrostatic game, referring to the design criteria. • Use a wider range of materials and equipment safely. 	<ul style="list-style-type: none"> • Make a torch with a working electrical circuit and switch. • Use appropriate equipment to cut and attach materials. 	<ul style="list-style-type: none"> • Make a working circuit. • Create an electronic greeting card, referring to design criteria. • Map out where different components of 	<ul style="list-style-type: none"> • Make electromagnetic motors and tweak the motor to improve its function. • Construct a stable base for an

				<ul style="list-style-type: none"> • Use electrostatic energy to move objects in isolation as well as in part of a system. 	<ul style="list-style-type: none"> • Assemble a torch according to the design and success criteria. 	the circuit will go.	<p>electromagnetic game.</p> <ul style="list-style-type: none"> • Accurately cut, fold and assemble a net. • Decorate the base of the game to a high quality finish. • Make and test a circuit. • Incorporate a circuit into a base.
<p>Evaluate</p> <p>Electrical Systems</p>	N/A	N/A	N/A	<ul style="list-style-type: none"> • Learn to give constructive criticism of own work and the work of others. • Test the success of a product against the original design criteria and justify opinions. 	<ul style="list-style-type: none"> • Evaluate electrical products both own and existing products on the market. • Test and evaluate the success of a final product and take inspiration from the work of peers. 	<ul style="list-style-type: none"> • Evaluate a completed product against the original design sheet and look at modifications that could be made to improve the reliability or aesthetics of it or to incorporate another type of electronic device e.g. a buzzer. 	<ul style="list-style-type: none"> • Test own and others finished games, identifying what went well and make suggestions for improvement.
<p>Technical Knowledge</p> <p>Electrical Systems</p>	N/A	N/A	N/A	<ul style="list-style-type: none"> • Understand what static electricity is and how it moves objects through 	<ul style="list-style-type: none"> • Identify electrical products • Learn how electrical items work. 	<ul style="list-style-type: none"> • Learn the key components used to create a functioning circuit. 	<ul style="list-style-type: none"> • Understand how electromagnetic motors work. • Learn that batteries contain

				<p>attraction or repulsion.</p> <ul style="list-style-type: none"> • Generate static electricity independently. • Use static electricity to make objects move in a desired way. 	<ul style="list-style-type: none"> • Learn what electrical conductors and insulators are. • Understand that a battery contains stored electricity and can be used to power products. • Identify the features of a torch. • Understand how a torch works. • Articulate the positives and negatives of different torches. 	<ul style="list-style-type: none"> • Learn that graphite is a conductor and can be used as part of a circuit. • Learn the difference between series and parallel circuits. • Understand that breaks in a circuit will stop it from working. 	<p>acid, which can be dangerous if they leak.</p> <ul style="list-style-type: none"> • Learn that when electricity enters a magnetic field it can make a motor.
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DT Skills Progression F2 – Y6

Cooking and Nutrition

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	N/A	N/A	<ul style="list-style-type: none"> • Design a healthy wrap based on a food combination which works well together. 	<ul style="list-style-type: none"> • Create a healthy and nutritious recipe for a savoury meal using seasonal ingredients, considering the 	<ul style="list-style-type: none"> • Design a biscuit within a given budget, drawing upon previous taste tastings. 	<ul style="list-style-type: none"> • Adapt a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, 	<ul style="list-style-type: none"> • Write a recipe, explaining the key steps, method and ingredients. • Include facts and drawings
Cooking and Nutrition							

				taste, texture, smell and appearance of the dish.		substitute or add additional ingredients. <ul style="list-style-type: none"> • Write an amended method for a recipe to incorporate the relevant changes to ingredients. • Design appealing packaging to reflect a recipe. 	from research undertaken.
Make Cooking and Nutrition	<ul style="list-style-type: none"> • Use a knife safely to chop a range of soft food. • Squeeze and spread toppings onto pancakes or fillings on to bread to know it adds flavour. • Roll out dough and use cutters with accuracy. • Use jugs, scoops and spoons in cooking. 	<ul style="list-style-type: none"> • Chop fruit and vegetables safely with a knife. • Identify if a food is a fruit or a vegetable. • Learn where and how fruits and vegetables grow. 	<ul style="list-style-type: none"> • Slice food safely using the bridge or claw grip. • Construct a healthy wrap that meets a design brief. 	<ul style="list-style-type: none"> • Know how to prepare themselves and a work space to cook safely in. • Learn the basic rules to avoid food contamination. • Follow the instructions in a recipe. 	<ul style="list-style-type: none"> • Cook safely, following basic hygiene rules. • Follow a baking recipe. • Adapt a recipe. 	<ul style="list-style-type: none"> • Cut and prepare vegetables safely. • Use equipment safely, including knives, hot pans and hobs. • Know how to avoid food cross-contamination. • Follow a step by step method carefully to make a recipe. 	<ul style="list-style-type: none"> • Follow a recipe using the correct quantities of each ingredient. • Adapt a recipe based on research. • Work to a given timescale. • Work safely and hygienically with increasing independence.
Evaluate Cooking and Nutrition	<ul style="list-style-type: none"> • Taste a variety of foods linked to different curriculum areas 	<ul style="list-style-type: none"> • Taste and evaluate different food combinations. 	<ul style="list-style-type: none"> • Describe the taste, texture and smell of fruit and vegetables. 	<ul style="list-style-type: none"> • Establish and use design criteria to help 	<ul style="list-style-type: none"> • Evaluate a recipe considering its taste, smell, 	<ul style="list-style-type: none"> • Identify the nutritional differences between 	<ul style="list-style-type: none"> • Evaluate a recipe considering its taste, smell,

	and places around the world.	<ul style="list-style-type: none"> • Describe the appearance, smell and taste of food. • Suggest information to be included on packaging. 	<ul style="list-style-type: none"> • Taste test food combinations and final products. • Describe the information that should be included on a label. • Evaluate which grip was most effective in peeling vegetables. 	<p>test and review dishes.</p> <ul style="list-style-type: none"> • Describe the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggest points for improvement when making a seasonal dish. 	<p>texture and appearance.</p> <ul style="list-style-type: none"> • Describe the impact of the budget on the selection of ingredients. • Evaluate and compare a range of products. • Suggest modifications. 	<p>different products and recipes.</p> <ul style="list-style-type: none"> • Identify and describe the health benefits of food groups. 	<p>texture and origin of the food group.</p> <ul style="list-style-type: none"> • Taste test and score final products. • Suggest and write up points for improvement in production. • Evaluate health and safety in production to minimise cross-contamination.
<p>Technical Knowledge</p> <p>Cooking and Nutrition</p>	<ul style="list-style-type: none"> • Know the importance of a healthy lifestyle. • Know how and when to add more liquid to something to make it less dry and add more of something to make it less wet (water and flour with dough). 	<ul style="list-style-type: none"> • Understand the difference between fruits and vegetables. • Describe and group fruits by texture and taste. 	<ul style="list-style-type: none"> • Understand what makes a balanced diet. • Know where to find the nutritional information on packaging. • Know the five food groups. 	<ul style="list-style-type: none"> • Learn that climate affects food growth. • Work with cooking equipment safely and hygienically. • Learn that imported foods travel from far away and this can negatively impact the environment. • Learn that fruit and vegetables grow in certain seasons. • Learn that each fruit and 	<ul style="list-style-type: none"> • Understand the impact of cost and importance of budgeting while planning ingredients for dishes. • Understand the environmental impact on future products and cost of production (talk about the impact of Covid on the global food market). 	<ul style="list-style-type: none"> • Understand where food comes from learning that beef is from cattle and how beef is reared and processed. • Understand what constitutes a balanced diet. • Learn to adapt a recipe to make it healthier. • Compare two adapted recipes using a nutritional calculator and 	<ul style="list-style-type: none"> • Learn how to research a recipe by ingredient. • Record the relevant ingredients and equipment needed for a recipe. • Understand the combinations of food that will complement one another. • Understand where food comes from, describing the process of 'Farm

				vegetables give us nutritional benefits. • Learn to use, store and clean a knife safely.		identify the healthier option.	to Fork' for a given ingredient.
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DT Skills Progression F2 – Y6

Textiles

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Textiles	<ul style="list-style-type: none"> Know that different materials and fabrics are used for different purposes e.g. wool for a jumper, rubber for wellies. 	<ul style="list-style-type: none"> Use a template to create a design for a simple puppet. 	<ul style="list-style-type: none"> Design a pouch. 	<ul style="list-style-type: none"> Design and make a template from an existing cushion and apply individual design criteria. 	<ul style="list-style-type: none"> Write design criteria for a product, articulating decisions made. Design a personalised book sleeve. 	<ul style="list-style-type: none"> Design a stuffed toy considering the main component shapes required and creating an appropriate template. Consider proportions of individual components. 	<ul style="list-style-type: none"> Design a waistcoat in accordance with specification linked to a set of design criteria and a theme. Annotate designs and explain any changes made.
Make Textiles	<ul style="list-style-type: none"> Thread smaller beads onto a string with control. Weave string in and out of a threading card or weaving basket. 	<ul style="list-style-type: none"> Cut fabric neatly with scissors. Use joining methods to decorate a puppet. Sequence the steps for construction. 	<ul style="list-style-type: none"> Select and cut fabrics for sewing. Decorate a pouch using fabric glue or running stitch. 	<ul style="list-style-type: none"> Follow design criteria to create a cushion. Select and cut fabrics with ease using fabric scissors. Sew cross stitch to join fabric. 	<ul style="list-style-type: none"> Make and test a paper template with accuracy and in keeping with the design criteria. Measure, mark and cut fabric using a paper template. 	<ul style="list-style-type: none"> Create a 3D stuffed toy from a 2D design. Measure, mark and cut fabric accurately and independently. Create strong and secure blanket stitches 	<ul style="list-style-type: none"> Use a template, pinning panels onto fabric. Mark and cut fabric accurately, in accordance with a design. Sew a strong running stitch,

	<ul style="list-style-type: none"> • Thread with wool. 			<ul style="list-style-type: none"> • Decorate fabric using appliqué. • Complete design ideas with stuffing and sewing the edges. 	<ul style="list-style-type: none"> • Select a stitch style to join fabric, working neatly to sew small stitches. • Incorporate a fastening to a design. 	<p>when joining fabric.</p> <ul style="list-style-type: none"> • Use appliqué to attach pieces of fabric decoration. 	<p>making small, neat stitches and following the edge.</p> <ul style="list-style-type: none"> • Tie strong knots. • Decorate a waistcoat attaching objects using thread and adding a secure fastening.
<p>Evaluate</p> <p>Textiles</p>	<ul style="list-style-type: none"> • Suggest which materials they would choose to do certain jobs. 	<ul style="list-style-type: none"> • Reflect on a finished product, explaining likes and dislikes. 	<ul style="list-style-type: none"> • Troubleshoot scenarios posed by the teacher. • Evaluate the quality of the stitching on others' work. • Discuss as a class the success of their stitching against the success criteria. • Identify aspects of their peers' work that they particularly like and why. 	<ul style="list-style-type: none"> • Evaluate an end product and think of other ways in which to create similar items. 	<ul style="list-style-type: none"> • Test and evaluate an end product against the original design criteria. • Decide how many of the criteria should be met for the product to be considered successful. • Suggest modifications for improvement. 	<ul style="list-style-type: none"> • Test and evaluate an end product and give points for further improvements. 	<ul style="list-style-type: none"> • Evaluate work continually as it is created.
<p>Technical Knowledge</p> <p>Textiles</p>	<ul style="list-style-type: none"> • Learn about some of the different textiles in existence. 	<ul style="list-style-type: none"> • Learn different ways in which to join fabrics together pinning, stapling, gluing. 	<ul style="list-style-type: none"> • Join items using fabric glue or stitching. • Identify the benefits of these techniques. 	<ul style="list-style-type: none"> • Thread needles with greater independence. • Tie knots with greater independence. 	<ul style="list-style-type: none"> • Understand that there are different types of fastenings and what they are. 	<ul style="list-style-type: none"> • Learn to sew blanket stitch to join fabric. • Apply blanket stitch so the space between 	<ul style="list-style-type: none"> • Learn different decorative stitches. • Apply these individual

			<ul style="list-style-type: none"> • Thread a needle. • Sew running stitch, with evenly spaced, neat stitches to join fabric. • Neatly pin and cut fabric using a template. 	<p>Sew cross stitch and appliqué.</p> <ul style="list-style-type: none"> • Understand the need to count the threads on a piece of even weave fabric in each direction to create uniform size and appearance. • Understand that fabrics can be layered for affect. 	<ul style="list-style-type: none"> • Articulate the benefits and disadvantages of different fastening types. 	<p>the stitches is even and regular.</p> <ul style="list-style-type: none"> • Thread needles independently. 	<p>techniques to an outcome.</p> <ul style="list-style-type: none"> • Sew accurately with even regularity of stitches.
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DT Skills Progression F2 – Y6

Digital World (New DT strand)

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design: Digital World (New)	N/A	N/A	N/A	<ul style="list-style-type: none"> • Problem-solve by suggesting potential features on a Micro:bit and justifying ideas. • Develop design ideas for a technology pouch. • Draw and manipulate 2D shapes, using 	<ul style="list-style-type: none"> • Write design criteria for Micro:bit, a programmed timer. • Explore different mindfulness strategies. • Apply the results of research to inform further 	<ul style="list-style-type: none"> • Research using books or internet a particular animal's needs. • Develop design criteria based on research. • Generate multiple housing ideas using building bricks. • Understand what a virtual 	<ul style="list-style-type: none"> • Write a design brief from information submitted by a client. • Develop design criteria to fulfil the client's request. • Consider and suggest additional

				<p>computer-aided design, to produce a point of sale badge.</p>	<p>my design criteria.</p> <ul style="list-style-type: none"> • Develop a prototype case for my mindful moment timer. • Use and manipulate shapes and clipart, using computer-aided design (CAD), to produce a logo. • Follow a list of design requirements. 	<p>model is and the pros and cons of traditional and CAD modelling.</p> <ul style="list-style-type: none"> • Place and manoeuvre 3D objects, using CAD. • Change the properties of, or combine one or more 3D objects, using CAD. 	<p>functions for my navigation tool.</p> <ul style="list-style-type: none"> • Develop a product idea through annotated sketches. • Place and manoeuvre 3D objects, using CAD. • Change the properties of, or combine one or more 3D objects, using CAD.
<p>Make</p> <p>Digital World (New)</p>	N/A	N/A	N/A	<ul style="list-style-type: none"> • Use a template when cutting and assembling the pouch. • Follow a list of design requirements. • Select and use the appropriate tools and equipment for cutting, joining, shaping and decorating a foam pouch. • Apply functional features such as 	<ul style="list-style-type: none"> • Develop a prototype case for their mindful moment timer. • Create a 3D structure using a net. 	<ul style="list-style-type: none"> • Understand the functional and aesthetic properties of plastics. 	<ul style="list-style-type: none"> • Consider materials and their functional properties, especially those that are sustainable and recyclable e.g. cork and bamboo. • Explain material choices and why they were chosen as part of a product concept.

				using foam to create soft buttons.			
Evaluate Digital World (New)	N/A	N/A	N/A	<ul style="list-style-type: none"> Analyse and evaluate an existing product. Identify the key features of a pouch. 	<ul style="list-style-type: none"> Investigate and analyse a range of timers by identifying and comparing their advantages and disadvantages. Evaluate their Micro:bit program against points on their design criteria and amend them to include any changes they made. Document and evaluate their project. Understand what a logo is and why they are important in the world of design and business. 	<ul style="list-style-type: none"> State an event or fact from the last 100 years of plastic history. Explain how plastic is affecting planet Earth and suggest ways to make more sustainable choices. 	<ul style="list-style-type: none"> Explain how their program fits the design criteria and how it would be useful as part of a navigation tool. Develop an awareness of sustainable design. Identify key industries that utilise 3D CAD modelling and explain why. Describe how the product concept fits the client's request and how it will benefit the customers.
Technical Knowledge Digital World (New)	N/A	N/A	N/A	<ul style="list-style-type: none"> Identify key product developments that occurred as a result of the digital revolution. 	<ul style="list-style-type: none"> Write design criteria for a programmed timer Micro:bit. Programme a Micro:bit in Microsoft 	<ul style="list-style-type: none"> Describe key developments in thermometer history. Programme to monitor the ambient 	<ul style="list-style-type: none"> Programme an N, E, S, W cardinal compass. Explain the key functions in their program,

				<ul style="list-style-type: none"> • Write a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm. • Understand what a loop is in programming. • Explain the basic functionality of their eCharm program. • Understand what is meant by 'point of sale display'. 	<p>Micro:bit editor to time a set number of seconds or minutes upon button press.</p> <ul style="list-style-type: none"> • Test the program for bugs (errors in the code). • Find and fix the bugs (debug) in my code. 	<p>temperature and code an audible or visual alert when the temperature rises above or falls below a specified range.</p> <ul style="list-style-type: none"> • Explain key functions in their program e.g. audible alert, visuals. • Explain how their product would be useful for an animal carer including programmed features. 	<p>including any additions.</p> <ul style="list-style-type: none"> • Explain how their program fits the design criteria and how it would be useful as part of a navigation tool. • Explain the key functions and features of their navigation tool to the client as part of a product concept pitch. • Demonstrate a functional program as part of a product concept.
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