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DT Progression Map

Nursery		Autumn *Dough*	Spring 1 *Food and Nutrition – Easter treats*	Spring 2 *Jewellery*
Skills	Design	*Personal, Social and Emotional development:* • Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen or one which is suggested to them. *Expressive Arts and Design* • Develop their own ideas and decide which materials to use to express them.		
	Make	*Expressive Arts and Design* • Explore different materials freely, in order to develop their ideas about how to use them and what to make. • Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. *Physical Development* • Use a range of small tools including scissors, paintbrushes and cutlery (Fine motor skills) • Choose the right resources to carry out their own plan. • Use one handed tools and equipment for example, making snips in paper with scissors. *Understanding the World* • Explore how things work.		
	Evaluate	*Expressive Arts and Design:* • Share their creations explaining the process they have used.		
Knowledge	Technical Knowledge (Cooking and Nutrition)	• Begin to recognise the types of food and where is comes from. • To begin to understand that food needs to be fresh and cooked properly.		

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Reception		Autumn *Seasonal project - Hibernation*	Spring 1 *Structures – Boats*	Spring 2 *Structures – Junk Modelling*
Skills	Design	*Understanding the world* • Explore the natural world around them. • Describe what they see, hear and feel whilst outside. • Understand the effect of the changing seasons on the natural world around them. ELG: The Natural World: Explore the natural world around them, making observations and drawing pictures of animals and plants ELG: The Natural World: Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Expressive arts and design • Explore, use and refine a variety of artistic effects to express their ideas and feelings. ELG: Creating with Materials: Safely use and explore a variety of materials, tools and	• Designing a junk model boat. • Using knowledge from exploration to inform design.	• Making verbal plans and material choices. • Developing a junk model
	Make		• Improving fine motor/scissor skills with a variety of materials. • Joining materials in a variety of ways (temporary and permanent). • Joining different materials together. • Describing their junk model, and how they intend to put it together.	• Making a boat that floats and is waterproof, considering material choices.
	Evaluate		• Giving a verbal evaluation of their own and others' junk models with adult support. • Checking to see if their model matches their plan. • Considering what they would do differently if they were to do it again. • Describing their favourite and least favourite part of their model.	• Making predictions about, and evaluating different materials to see if they are waterproof. • Making predictions about, and evaluating existing boats to see which floats best. • Testing their design and reflecting on what could have been done differently. • Investigating the how the shapes and structure of a boat affect the way it moves.
Knowledge	Technical Knowledge		• To know there are a range to different materials that can be used to make a model and that they are all slightly different. • Making simple suggestions to fix their junk model.	• To know that 'waterproof' materials are those which do not absorb water.
	Additional			• To know that some objects float and others sink. • To know the different parts of a boat

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		techniques, experimenting with colour, design, texture, form and function. Characteristics of effective learning › Playing and exploring › Active learning › Creating and thinking critically		

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Year 1		Autumn *Structures – Making a stable structure*	Spring 1 *Textiles – Simple stitches.*	Spring 2 *Food – Smoothies*
Skills	Design	• Learning the importance of a clear design criteria. • Including individual preferences and requirements in a design	• Using a template to create a design.	• · Designing smoothie carton packaging by-hand.
	Make	• Making stable structures from card, tape and glue. • Learning how to turn 2D nets into 3D structures. • Following instructions to cut and assemble a structure.	• Cutting fabric neatly with scissors. • Sequencing steps for construction.	• Chopping fruit and vegetables safely to make a smoothie. • Juicing fruits safely to make a smoothie.
	Evaluate	• Evaluating 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.	• Reflecting on a finished product, explaining likes and dislikes.	• Tasting and evaluating different food combinations. Describing appearance, smell and taste. • Suggesting information to be included on packaging. Comparing their own smoothie with someone else's.
Knowledge	Technical Knowledge	• To understand that the shape of materials can be changed to improve the strength and stiffness of structures. • To understand that cylinders are a strong type of structure. • To begin to understand that different structures are used for different purposes. • To know that a structure is something that has been made and put together	• To know that 'joining technique' means connecting two pieces of material together. • To know that there are various temporary methods of joining fabric by using staples, glue or pins. • To understand that different techniques for joining materials can be used for different purposes. • To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. • To know that drawing a design idea is useful to see how an idea will look.	• To know that a blender is a machine which mixes ingredients together into a smooth liquid. • To know that a fruit has seeds. • To know that fruits grow on trees or vines. • To know that vegetables can grow either above or below ground. • To know that vegetables is any edible part of a plant (e.g. roots: potatoes, leaves: lettuce, fruit: cucumber).
	Additional	• To know that a client is the person I am designing for. • To know that design criteria is a list of points to ensure the product meets the client's needs and wants. .		

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Year 2		Autumn *Mechanisms – Fairground Wheel*	Spring 1 *Structures – Making a chair for Baby Bear*	Spring 2 *Mechanisms- Making a moving monster*
Skills	Design	• Selecting a suitable linkage system to produce the desired motion. • Designing a wheel.	• Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.	• Creating a class design criteria for a moving monster. • Designing a moving monster for a specific audience in accordance with a design criteria.
	Make	• Selecting materials according to their characteristics. • Following a design brief.	• Making a structure according to design criteria. • Creating joints and structures from paper/card and tape. • Building a strong and stiff structure by folding paper.	• Making linkages using card for levers and split pins for pivots. • Experimenting with linkages adjusting the widths, lengths and thicknesses of card used. • Cutting and assembling components neatly.
	Evaluate	• Evaluating different designs. • Testing and adapting a design.	• Exploring the features of structures. • Comparing the stability of different shapes. • Testing the strength of own structures. • Identifying the weakest part of a structure. • Evaluating the strength, stiffness and stability of own structure.	• Evaluating own designs against design criteria. • Using peer feedback to modify a final design.
Knowledge	Technical Knowledge	• To know that different materials have different properties and are therefore suitable for different uses.	• To know that shapes and structures with wide, flat bases or legs are the most stable. • To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a structure is something which has been formed or made from parts.	• To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. • To know that there is always an input and output in a mechanism. • To know that an input is the energy that is used to start something working. • To know that an output is the movement that happens as a result of the input.

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			• To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily	• To know that a lever is something that turns on a pivot. • To know that a linkage mechanism is made up of a series of levers.
	Additional	• To know the features of a Ferris wheel, include the wheel, frame, pods, a base an axle and an axle holder. • To know that it is important to test my design as I go along so that I can solve any problems that may occur.	• Generating and communicating ideas using sketching and modelling. • Learning about different types of structures, found in the natural world and in everyday objects.	• To know some real-life objects that contain mechanisms.

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Year 3		Autumn *Structures – constructing a castle*	Spring 1 *Food – Eating seasonally*	Spring 2 *Textiles – Making a cushion*
Skills	Design	• Designing a castle with key features to appeal to a specific person/purpose. • Drawing and labelling a castle design using 2D shapes, labelling: -the 3D shapes that will create the features - materials needed and colours. • Designing and/or decorating a castle tower on CAD software.	• Designing a recipe for a savoury tart.	• Designing and making a template from an existing cushion and applying individual design criteria. • Writing design criteria for a product, articulating decisions made.
	Make	• Constructing a range of 3D geometric shapes using nets. • Creating special features for individual designs. • Making facades from a range of recycled materials.	• Following the instructions within a recipe. • Tasting seasonal ingredients. • Selecting seasonal ingredients. • Peeling ingredients safely. • Cutting safely with a vegetable knife.	• Following design criteria to create a cushion • Selecting and cutting fabrics with ease using fabric scissors. • Threading needles with greater independence. • Tying knots with greater independence. • Sewing cross stitch to join fabric. • Decorating fabric using appliqué. • Completing design ideas with stuffing and sewing the edges (Cushions) • Making and testing a paper template with accuracy and in keeping with the design criteria. • Measuring, marking and cutting fabric using a paper template. • Selecting a stitch style to join fabric. • Working neatly by sewing small, straight stitches. • Incorporating a fastening to a design.

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	Evaluate	• Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison, to the original design. • Suggesting points for modification of the individual designs.	• Establishing and using design criteria to help test and review dishes. • Describing the benefits of seasonal fruits and vegetables and the impact on the environment. • Suggesting points for improvement when making a seasonal tart.	• Evaluating an end product and thinking of other ways in which to create similar items. • Testing and evaluating an end product against the original design criteria. • Deciding how many of the criteria should be met for the product to be considered successful. • Suggesting modifications for improvement. • Articulating the advantages and disadvantages of different fastening types.
Knowledge	Technical Knowledge	• To understand that wide and flat based objects are more stable. • To understand the importance of strength and stiffness in structures.	• To know that not all fruits and vegetables can be grown in the UK. • To know that climate affects food growth. • To know that vegetables and fruit grow in certain seasons. • To know that cooking instructions are known as a 'recipe'. • To know that imported food is food which has been brought into the country. • To know that exported food is food which has been sent to another country. • To know that eating seasonal foods can have a positive impact on the environment. • To know that similar coloured fruits and vegetables often have similar nutritional benefits. • To know that the appearance of food is as important as taste.	• To know that applique is a way of mending or decorating a textile by applying smaller pieces of fabric to larger pieces. • To know that when two edges of fabric have been joined together it is called a seam. • To know that it is important to leave space on the fabric for the seam. • To understand that some products are turned inside out after sewing so the stitching is hidden. • To know that a fastening is something which holds two pieces of material together for example a zipper, toggle, button, press stud and velcro. • To know that different fastening types are useful for different purposes. • To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions.
	Additional	• To know the following features of a castle: flags, towers, battlements, turrets, curtain walls, moat, drawbridge and gatehouse - and their purpose. • To know that a façade is the front of a structure. • To understand that a castle needed to be strong and stable to withstand enemy attack. • To know that a paper net is a flat 2D shape that can become a 3D shape once assembled. • To know that a design specification is a list of success criteria for a product.		

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Year 4		Autumn *Electrical systems – Torches*	Spring 1 *Digital World- Mindfulness moments timer*	Spring 2 *Mechanical Systems- Mechanical cars*
Skills	Design	• Designing a torch, considering the target audience and creating both design and success criteria focusing on features of individual design ideas.	• Problem solving by suggesting which features on a micro:bit might be useful and justifying my ideas. • Drawing and manipulating 2D shapes, using computer-aided design, to produce a point of sale badge. • Developing design ideas through annotated sketches to create a product concept. • Developing design criteria to respond to a design brief. • Writing design criteria for a programmed timer (micro:bit). • Exploring different mindfulness strategies. • Applying the results of my research to further inform my design criteria. • Developing a prototype case for my mindful moment timer. • Using and manipulating shapes and clipart by using computer-aided design (CAD), to produce a logo. • Following a list of design requirements.	• Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. • Taking part in structured idea blasting sessions. • Coming up with more ideas and considering the feasibility of their ideas in the classroom. • Developing drawing and sketching skills with a focus on clarity and simplicity. • Developing designs by adding detail and justifications about materials, tools, methods. • Beginning to recognise the benefit of a range of diagram types or prototypes to communicate ideas. (eg. sketches, cross-sectional diagram, thumbnail sketches and exploded diagrams). • Designing a toy which uses a pneumatic system. • Developing design criteria from a design brief. • Generating ideas using thumbnail sketches and exploded diagrams. • Learning that different types of drawings are used in design to explain ideas clearly. • Designing a shape that reduces air resistance. • Drawing a net to create a structure. • Choosing shapes that increase or decrease speed as a result of air resistance. • Personalising a design. • Taking part in structured idea-sharing sessions. • Developing drawing and sketching skills with a focus on clarity and simplicity. • Beginning to recognise the benefit of a range of diagram types or prototypes to communicate ideas. (eg.

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				sketches, cross-sectional diagrams, thumbnail sketches and exploded diagrams). • Creating prototypes using materials with similar properties to their final design. • Creating simple design criteria that outline basic functionality and appeal to individual users or target audiences. • Developing designs by adding detail and justifications about materials, tools and methods.
	Make	• Making a torch with a working electrical circuit and switch. • Using appropriate equipment to cut and attach materials. • Assembling a torch according to the design and success criteria.	• Following a list of design requirements. • Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm. • Developing a prototype case for my mindful moment timer. • Creating 3D structures using modelling materials. • Programming a micro:bit in the Microsoft micro:bit editor, to time a set number of seconds/minutes upon button press.	• Measuring, marking, cutting and assembling with increasing accuracy. • Making a model based on a chosen design. • Following detailed safety instructions. • Using a ruler as a measuring tool with increasing accuracy by creating spaced marks using millimetres and measuring lengths of objects. • Handle different sizes and types of scissors with confidence. • With close supervision using a hot glue gun to join wooden materials (e.g. lolly sticks). • Selecting equipment required for a series of tasks based on the plan. Explain why each piece is suitable for each stage. • Selecting materials, components from a wider choice but within a limited design space.
	Evaluate	• Evaluating electrical products. • Testing and evaluating the success of a final product.	• Analysing and evaluating wearable technology. • Using feedback from peers to improve design. • Investigating and analysing a range of timers by identifying and comparing their advantages and disadvantages. • Evaluating my micro:bit program against points on my design criteria and amending them to include any changes I made. • Documenting and evaluating my project.	• Evaluating the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance. • Explaining why they think certain aspects of a peer's design are effective or why they suggested specific improvements. • Reflecting on feedback to decide if and how it could be used to improve future iterations.

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			• Understanding what a logo is and why they are important in the world of design and business. • Testing my program for bugs (errors in the code). • Finding and fixing the bugs (debug) in my code. • Using an exhibition to gather feedback. • Gathering feedback from the user to make suggested improvements to a product.	• Investigating and analysing a range of existing products by looking at their functionality and appeal. • Analysing why specific products, designers or inventors are successful. • Evaluating their designs by comparing them against design criteria and considering feedback from peers to suggest improvements. • Evaluating how effective their chosen materials and tools were in fulfilling the design brief.
Knowledge	Technical Knowledge	• To understand that electrical conductors are materials which electricity can pass through. • To understand that electrical insulators are materials which electricity cannot pass through. • To know that a battery contains stored electricity that can be used to power products. • To know that an electrical circuit must be complete for electricity to flow. • To know that a switch can be used to complete and break an electrical circuit.	• To understand that, in programming, a 'loop' is code that repeats something again and again until stopped. • To know that a micro:bit is a pocket-sized, codeable computer. • To know that a simulator is able to replicate the functions of an existing piece of technology. • To understand what variables are in programming. • To know some of the features of a micro:bit. • To know that an algorithm is a set of instructions to be followed by the computer. • To know that it is important to check my code for errors (bugs). • To know that a simulator can be used as a way of checking your code works before installing it onto an electronic device.	• To know that air resistance is the level of drag on an object as it is forced through the air. • To understand that the shape of a moving object will affect how it moves due to air resistance. • To understand that a mechanical system can allow us to move something more easily. • To know that mechanical systems have more than one mechanism that moves to make them work. • To know that mechanical systems are often hidden in products to make them look more appealing.

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	Additional	• To know the features of a torch: case, contacts, batteries, switch, reflector, lamp, lens. • To know facts from the history and invention of the electric light bulb(s) - by Sir Joseph Swan and Thomas Edison.	• To know what the 'Digital Revolution' is and the features of some of the products that have evolved as a result. • To understand what is meant by 'point of sale display'. • To know that CAD stands for 'computer-aided design'. • To know what a focus group is by taking part in one. • To understand the terms 'ergonomic' and 'aesthetic'. • To know that a prototype is a 3D model made out of cheap materials, that allows us to test design ideas and make better decisions about size, shape and materials. • To know that an exhibition is a way for companies to showcase products, meet potential new customers and gather feedback from users.	• To know that aesthetics means how an object or product looks in design and technology. • To know that a template is a stencil you can use to help you draw the same shape accurately. • To know that a birds-eye view means a view from a high angle (as if a bird in flight). • To know that graphics are images which are designed to explain or advertise something. • To know that it is important to assess and evaluate design ideas and models against a list of design criteria. • To know that extra information on drawings or diagrams can help the user understand a design or idea. • To know that an exploded diagram shows how the parts of a product fit together. • To know that a prototype is a detailed model that helps a user understand how a product will work. • To know that a target audience is a group of people that might like the idea. • To know that different tools and equipment have different dangers. • To know that a ruler can be used to measure length. • To know that a hot glue gun can be used to join materials. • To know that better suggestions of improvements mean better feedback. • To know that they can choose to use feedback or not. • To know that some products are more successful than other because of their function. • To know that choices of materials and equipment can affect the final product. • To know that feedback is ideas and suggestions from other people that can help improve their work.

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Year 5		Autumn *Mechanisms – Pop up book*	Spring 1 *Food – Developing a recipe*	Spring 2 *Electrical systems – Wobble Bots*
Skills	Design	• Designing a pop-up book which uses a mixture of structures and mechanisms. • Naming each mechanism, input and output accurately. • Storyboarding ideas for a book.	• Adapting a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients. • Writing an amended method for a recipe to incorporate the relevant changes to ingredients. • Designing appealing packaging to reflect a recipe. • Researching existing recipes to inform ingredient choices.	• Identifying factors that could be changed on existing products and explaining how these would alter the form and function of the product. • Developing design criteria based on findings from investigating existing products. • Developing design criteria that clarifies the target user.
	Make	• Following a design brief to make a pop-up book, neatly and with focus on accuracy. • Making mechanisms and/or structures using sliders, pivots and folds to produce movement. • Using layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result.	• Cutting and preparing vegetables safely. • Using equipment safely, including knives, hot pans and hobs. • Knowing how to avoid cross-contamination. • Following a step by step method carefully to make a recipe	• Altering a product's form and function by tinkering with its configuration. • Making a functional series circuit, incorporating a motor. • Constructing a product with consideration for the design criteria.
	Evaluate	• Evaluating the work of others and receiving feedback on own work. • Suggesting points for improvement.	• Identifying the nutritional differences between different products and recipes. • Identifying and describing healthy benefits of food groups.	• Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses. • Determining which parts of a product affect its function and which parts affect its form. • Analysing whether changes in configuration positively or negatively affect an existing product.

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Knowledge	Technical Knowledge	• To know that mechanisms control movement. • To understand that mechanisms can be used to change one kind of motion into another. • To understand how to use sliders, pivots and folds to create paper-based mechanisms.	• To understand where meat comes from - learning that beef is from cattle and how beef is reared and processed. • To know that recipes can be adapted to suit nutritional needs and dietary requirements. • To know that I can use a nutritional calculator to see how healthy a food option is. • To understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects. • To know that coloured chopping boards can prevent cross-contamination. • To know that nutritional information is found on food packaging. • To know that food packaging serves many purposes.	• To know that series circuits only have one direction for the electricity to flow. • To know when there is a break in a series circuit, all components turn off. • To know that an electric motor converts electrical energy into rotational movement, causing the motor's axle to spin. • To know a motorised product is one which uses a motor to function.
	Additional	• To know that a design brief is a description of what I am going to design and make. • To know that designers often want to hide mechanisms to make a product more aesthetically pleasing.		• To know that product analysis is critiquing the strengths and weaknesses of a product. • To know that 'configuration' means how the parts of a product are arranged.

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DT Progression Map

Year 6		Autumn *Digital Technology – Navigating the world.*	Spring 1 *Structures- Playgrounds*	Spring 2 *Textiles- Bags*
Skills	Design	• Developing design criteria based on research. • Generating multiple housing ideas using building bricks. • Understanding what a virtual model is and the pros and cons of traditional and CAD modelling. • Placing and manoeuvring 3D objects, using CAD. • Changing the properties of, or combining one or more 3D objects, using CAD. • Writing a design brief from information submitted by a client. • Developing design criteria to fulfil the client's request. • Considering and suggesting additional functions for my navigation tool. • Developing a product idea through annotated sketches. • Placing and manoeuvring 3D objects, using CAD. • Changing the properties of, or combining one or more 3D objects, using CAD	• Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs.	• Considering the proportions of individual components. • Developing annotated sketches to communicate design ideas. • Creating pattern pieces to use in design. • Designing a bag in accordance to a specification linked to a set of design criteria. • Annotating designs to explain their decisions.
	Make	• Understanding the functional and aesthetic properties of plastics. • Programming to monitor the ambient temperature and coding an (audible or visual) alert when the temperature rises above or falls below a specified range. • Considering materials and their functional properties, especially those that are sustainable and recyclable (e.g. cork and bamboo). • Explaining material choices and why they were chosen as part of a product concept.	• Building a range of play apparatus structures drawing upon new and prior knowledge of structures. • Measuring, marking and cutting wood to create a range of structures. • Using a range of materials to reinforce and add decoration to structures.	• Measuring, marking and cutting fabric accurately and independently. • Creating strong and secure blanket stitches when joining fabric. • Threading needles independently. • Using appliqué to attach pieces of fabric decoration. • Sewing blanket stitch to join fabric. • Applying blanket stitch so the spaces between the stitches are even and regular. • Using a ruler to accurately measure and draw lines and marks. • Using nets to create 3D objects.

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		• Programming an N, E, S, W cardinal compass.		• Using a template when cutting fabric to ensure they achieve the correct shape. • Using pins effectively to secure a template to fabric without creases or bulges. • Marking and cutting fabric accurately, in accordance with their design. • Sewing a strong running stitch, making small, neat stitches and following the edge. • Tying strong knots. • Finishing the waistcoat with a secure fastening (such as buttons). • Learning different decorative stitches. • Sewing accurately with evenly spaced, neat stitches.
	Evaluate	• Stating an event or fact from the last 100 years of plastic history. • Explaining how plastic is affecting planet Earth and suggesting ways to make more sustainable choices. • Explaining key functions in my program (audible alert, visuals). • Explaining how my product would be useful for an animal carer, including programmed features. • Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Developing an awareness of sustainable design. • Identifying key industries that utilise 3D CAD modelling and explaining why. • Describing how the product concept fits the client's request and how it will benefit the customers. • Explaining the key functions in my program, including any additions.	• Improving a design plan based on peer evaluation. • Testing and adapting a design to improve it as it is developed. • Identifying what makes a successful structure.	• Testing and evaluating an end product and suggesting further improvements. • Reflecting on the functionality and aesthetics of products. • Discussing reasons for design choices. • Reflecting on their work continually throughout the design, make and evaluate process.

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		• Explaining how my program fits the design criteria and how it would be useful as part of a navigation tool. • Explaining the key functions and features of my navigation tool to the client as part of a product concept pitch. • Demonstrating a functional program as part of a product concept pitch		
Knowledge	Technical Knowledge	• To know that a 'device' means equipment created for a certain purpose or job and that monitoring devices observe and record. • To know that a sensor is a tool or device that is designed to monitor, detect and respond to changes for a purpose. • To understand that conditional statements (and, or, if booleans) in programming are a set of rules which are followed if certain conditions are met. • To know that accelerometers can detect movement. • To understand that sensors can be useful in products, as they mean the product can function without human input.	• To know that structures can be strengthened by manipulating materials and shapes.	• Using pins effectively to secure a template to fabric without creases or bulges. • Threading needles independently. • Tying knots at the end of thread to secure it. • Selecting textiles and buttons to improve aesthetics and function. • Attaching objects like buttons using thread
	Additional	• To understand key developments in thermometer history.	• To understand what a 'footprint plan' is.	• To know that blanket stitch is useful to reinforce the

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		• To know events or facts that took place over the last 100 years in the history of plastic, and how this is changing our outlook on the future. • To know the six 'R's of sustainability. • To understand what a virtual model is and the pros and cons of traditional vs CAD modelling. • To know that designers write design briefs and develop design criteria to enable them to fulfil a client's request. • To know that 'multifunctional' means an object or product has more than one function. • To know that magnetometers are devices that measure the Earth's magnetic field to determine which direction you are facing.	• To understand that in the real world, design, can impact users in positive and negative ways. • To know that a prototype is a cheap model to test a design idea.	• edges of a fabric material or join two pieces of fabric. • To understand that it is easier to finish simpler designs to a high standard. • To know that soft toys are often made by creating appendages separately and then attaching them to the main body. • To know that nets can be folded to create 3D shapes. • To know that pattern pieces are like nets/templates. • To know how designers use pattern pieces when creating textile products. • To know that products are sometimes made in parts that are sewn together. • To know that safety pins can hold fabric in place before sewing. • To know that there are different types of stitches. • To know what a running stitch is. • To know that aesthetics is how something looks. • To know that consistently sized stitches improve the aesthetic of a product. • To know that the shape of an object can affect both its aesthetics and function. • To understand that it is important to design clothing with the client/ target customer in mind. • To know that using a template (or clothing pattern) helps to accurately mark out a design on fabric. • To understand the importance of consistently sized stitches.