



TEALBY PRIMARY SCHOOL

'Aspire, Believe, Achieve'

*We want our pupils to move from us, confident, curious, articulate, creative, independent and well-prepared for their next stage.
We want to produce collaborators, innovators, leaders and, more than anything else, young people who understand what it is to be human.*

Design and Technology Progression of Learning		 TEALBY SCHOOL Aspire Believe Achieve		'Investigate'		
Curriculum						
Themed Skills:						
• Recognise their roles as Global citizens • Communicate their learning in relevant ways			• Recognise that they can impact their environment and community • Show a commitment to justice • Show empathy			
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING & NUTRITION	HORTICULTURE
Structures (Pavilions) To know that a pavilions ia a decorative building or structure for leisure activities To know that cladding can be applied to structures for different effects. *To know that aesthetics mean, howa product looks *To know that a product's function means its purpose	*Know how to use research to develop designs * Know how to develop innovative, functional and appealing products that are design for a particular purpose * Know how to generate, develop and communicate ideas through discussion with others * Know how to prototypes, pattern pieces and technology to generate, develop and communicate ideas. *To know how to design a stable pavilion structure that is	*Know how to cut internal shapes. *Know how to use linkages and sliders to make movements larger or more varied. * Know how to use and explore complex pop ups. * Know how nets are created to support the design process. * Know how to explore and evaluate different ways of joining materials * Know different finishes for their product.	*Know how to investigate and evaluate a range of existing products *Know how to evaluate their ideas and products against design criteria and seek the views of others to improve their work *Know how key events and individuals in design technology have helped to shape the world * To know how to evaluate structures made by the class	*Know how to Incorporate a circuit with a bulb or buzzer into a model. * Know how to use mechanical systems in their products (e.g. levers and linkages) * Know how to make shell or frame structures - strengthen frames with diagonal struts. * Know how to make structures more stable by giving them a wide base. * Know how to make prototype frame and shell structures.	*Know and use sensory vocabulary/ knowledge using, smell, taste, texture and feel. * Know how to use and analyse the taste, texture, smell and appearance of a range of foods. * Know how to follow instructions. * Know how to Join and combine a range of ingredients. * Know how to work safely and hygienically.	<u>Understanding:</u> ☑ Know that plants and vegetables need diverse climates and conditions to grow in – e.g. we grow tomatoes in a greenhouse ☑ Know the lifecycle of a plant. <u>Planting skills:</u> ☑ Know that we plant things for a purpose and to try the products that we have grown.

COURAGE EXCELLENCE DETERMINATION RESPECT INSPIRATION COMPASSION



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*To understand that the target audience means the person or group of people a product is designed for *To know that architects consider light, shadow and patterns when designing	aesthetically pleasing and selecting materials to create a desired effect *To know how to build frame structures designed to support weight	* Know how to use a range of materials. *To know how to create a range of different shaped frame structures *To know how to make a variety of free standing frame structures of different shapes and sizes *To know how to select appropriate materials to build a strong structure. * To know how to reinforce corners to strengthen a structure * To know how to create a design in accordance with a plan To know how to create different textural effects with materials	* To know how to describe what characteristics of a design and construction made it the most effective *To know how to consider effective and ineffective designs	To understand what a frame structure is *To know that a 'free-standing' structure is one which can stand on its own	* Know how to measure and weigh ingredients appropriately. * To know how to design a biscuit within a given budget, drawing upon previous taste testing * To know how to follow a baking recipe * To know how to cook safely, following basic hygiene rules *To know how to adapt a recipe. *To know how to evaluate a recipe, considering: taste, smell, texture and appearance * To know how to describe the impact of the budget on the selection of ingredients. *To know how to evaluate and comparing a range of products *To know how to suggest modifications. *To know that the amount of an ingredient in a recipe is known as the 'quantity' *To know that it is important to use oven gloves when	☑ Know how to care and protect what we are growing using various techniques e.g. watering, covering ☑ To know and understand about decay e.g. composting. ☑ Know how to Harvest what we have grown e.g. digging root crops such as potatoes and carrots without damaging them and pick peas and beans. <u>Tool Skills:</u> ☑ Know how to use various tools safely and without support to dig, plant and remove weeds etc. ☑ Know how to use secateurs to prune – with supervision where necessary.
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE		
Mechanisms/ Mechanical Systems (Making a sling-slot car)	*To know how to design a shape that reduces air resistance *To know how to draw a net to create a structure from. * To know how to choose shapes that increase or decrease speed as a result of air resistance * To know how to Personalising a design	*To know how to measure, mark, cut and assemble with increasing accuracy *To know how to make a model based on a chosen design	To know how to evaluate the speed of a final product based on: the effect of shape on speed and the accuracy of workmanship on performance			



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Electrical Systems Static Electricity/Torches *To know that the target audience is the group of people that the product is designed to appeal to *To know that designers use design criteria to focus their ideas and test how successful their designs are *To know that 'constructive criticism' is giving suggestions for improvement in a positive manner * 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 how to design a game that works using static electricity, including the instructions for playing the game Identifying a design criteria and a target audience *To design a torch, giving consideration to the target audience and creating both design and success criteria focusing on features of individual design ideas	*To know how to make an electrostatic game, referring to the design criteria *To know how to use a wider range of materials and equipment safely * To know how to use electrostatic energy to move objects in isolation as well as in part of a system * To know how to make a torch with a working electrical circuit and switch * To know how to use appropriate equipment to cut and attach materials * To know how to assemble a torch according to the design and success criteria.	*To know how to evaluate electrical products: testing and evaluating the success of a final product and taking inspiration from the world. * To know how to give constructive criticism on own work and the work of others * To know how to test the success of a product against the original design criteria and justify opinions	*To understand what static electricity is and how it moves objects through attraction or repulsion *To know that charges can pass between objects, creating static electricity. *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	removing hot food from an oven *To know the following cooking techniques: sieving, creaming, rubbing method, cooling *To understand the importance of budgeting while planning ingredients for biscuits	
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE		
Textiles (Fastenings) *To know that a fastening is something which holds two pieces of material together for example a zipper,	*To know how to write design criteria for a product, articulating decisions made Designing a personalised book sleeve	*To know how to make and test a paper template with accuracy and in keeping with the design criteria *To know how to measure, mark and cut fabric using a paper template	* To know how to test and evaluate an end product against the original design criteria *To know how to decide how many of the criteria should be met for the	To know that creating a mock up (prototype) of their design is useful for checking ideas and proportions		

COURAGE EXCELLENCE DETERMINATION RESPECT INSPIRATION COMPASSION



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toggle, button, press stud and velcro *To know that different fastening types are useful for different purposes		*To know how to select a stitch style to join fabric, working neatly sewing small neat stitches * To know how to incorporate fastening to a design	product to be considered successful * To know how to suggest modifications for improvement * To know how to articulate the advantages and disadvantages of different fastening types.			
Digital World Mindfulness Moments Timer/Electronic charm * To know what the 'Digital Revolution' is and features of some of the products that have evolved as a result *To know that in Design and technology the term 'smart' means a programmed product *To know the difference between analogue and digital technologies *To understand what is meant by 'point of sale displays' *To know that CAD stands for Computer-aided design Understand the terms 'ergonomic' and 'aesthetic' *To know that a prototype is a 3D model	* To know how to problem solve by suggesting potential features on a Micro: bit and justify ideas. * To know how to developing design ideas for a technology pouch * To know how to draw and manipulate 2D shapes, using computer-aided design, to produce a point of sale badge * To know how to write design criteria for a programmed timer (Micro:bit) * To know different mindfulness strategies * To know how to apply results of my research to further inform my design criteria * To know how to develop a prototype case for a mindful moment timer * To know how manipulate shapes and clipart, using	* To know how to use a template when cutting and assembling the pouch *To know how to follow a list of design requirements * To know how to select and use the appropriate tools and equipment for cutting, joining, shaping and decorating a foam pouch * To know how to apply functional features such as using foam to create soft buttons * To know how to develop a prototype case for a timer * To know how to create a 3D structure using a net * To know how to program using a micro:bit in the Microsoft micro:bit editor, to time a set number of seconds/minutes upon a button press	* To know how to analyse and evaluate an existing product * To know how to identify the key features of a pouch * To know how to investigate and analyse a range of timers by identifying and comparing their advantages and disadvantages * To know how to evaluating a micro:bit program against points on a design criteria and amend them to include any changes made. * To know how to document and evaluate my project * To know what a logo is and why they are important in the world of design and business * To know how to test my program for bugs (errors in the code)	*To know 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 Writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm *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		



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made out of cheap materials, that allows us *To test design ideas and make better decisions about size, shape and materials	computer-aided design (CAD), to produce a logo *To know how to follow a list of design requirements		* To know how to find and fix the bugs (debug) in my code	before installing it onto an electronic device		
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING & NUTRITION	HORTICULTURE
	*Know how to use research and develop criteria to inform design * Know how to develop innovative, functional and appealing products that are aimed at particular individuals or groups * Know how to generate, develop, and communicate ideas through discussion, actively seeking the views of others. * Know how to use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas.	*Know how to cut slots. * Join and combine materials with temporary, fixed or moving joining's. * Know how to use a glue gun with close supervision. * Know how to use nets and models to build prototypes * Know how to select from a wide range of materials based on functional and aesthetic properties * Know how to explore and use different finishes taking into account the aesthetics of their product	*Know how to analyse a range of existing products based on functional and aesthetic qualities * Know and evaluate their ideas and products against their own design criteria * Know how to actively seek and consider the views of others to improve their work * Know how key events and individuals in design technology have helped to shape the world.	*Know and use mechanical systems in their products (e.g. gears, pulleys and cams) * Know how to apply their understanding of how to reinforce and strengthen increasingly complex structures using a range of materials.	*Know how to analyse food products taking into account the properties of ingredients and sensory characteristics. * Know how to select and prepare foods for a particular purpose * Know how to investigate a range of ingredients, food items to develop a sensory food vocabulary for use when designing. * Know how to weigh and measure using scales * Know how to cut and shape ingredients using appropriate tools and equipment e.g. grating * Know how to join and combine food ingredients appropriately e.g. beating, rubbing in. * Know how to decorate appropriately. * Know how to work safely and hygienically. * Know what a healthy diet is	<u>Understanding:</u> ☑ Know that plants and vegetables need diverse climates and conditions to grow in – e.g. we grow tomatoes in a greenhouse ☑ Know the lifecycle of a plant. <u>Planting skills:</u> ☑ Know that we plant things for a purpose and to try the products that we have grown. ☑ Know how to care and protect what we are growing using various techniques e.g. watering, covering ☑ To know and understand about decay e.g. composting.

COURAGE EXCELLENCE DETERMINATION RESPECT INSPIRATION COMPASSION



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					* To know how to adapt a traditional recipe, understanding that the nutritional value of a recipe alters if you remove, substitute or add additional ingredients * To know how to write an amended method for a recipe to incorporate the relevant changes to ingredients - Designing appealing packaging to reflect a recipe - Cutting and preparing vegetables safely * To use equipment safely, including knives, hot pans and hobs * To know how to avoid cross-contamination * To follow a step by step method carefully to make a recipe * To identifying the nutritional differences between different products and recipes	☑ Know how to Harvest what we have grown e.g. digging root crops such as potatoes and carrots without damaging them and pick peas and beans. <u>Tool Skills:</u> ☑ Know how to use various tools safely and without support to dig, plant and remove weeds etc. ☑ Know how to use secateurs to prune – with supervision where necessary.
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE		
Structures BRIDGES To know the difference between arch, beam, truss and suspension bridges To know how to carry and use a saw safely	To know how to design a stable structure that is able to support weight To know how to create a frame structure with focus on triangulation	* To know how to make a range of different shaped beam bridges * To know how to using triangles to create truss bridges that span a given distance and supports a load Building a wooden bridge structure In	* To know how to adapt and improve own bridge structure by identifying points of weakness and reinforcing them as necessary * To know how to suggest points for improvements for own bridges and those designed by others	To understand some different ways to reinforce structures To understand how triangles can be used to reinforce bridges To know that properties are words that describe the form and function of materials	Identify and describe healthy benefits of food groups To know where meat comes from - learning that beef is from cattle and how beef is reared and processed, including key welfare issues To know that I can adapt a recipe to make it healthier by substituting ingredients	

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		* To know how to measure and mark wood accurately * To know how to select appropriate tools and equipment for particular tasks * To know how to use the correct techniques to saw safely * To know how to identify where a structure needs reinforcement and use card corners for support - To know how to explain why selecting appropriating materials is an important part of the design process * To know basic wood functional properties		To understand why material selection is important based on their properties To understand the material (functional and aesthetic) properties of wood	To know that I can use a nutritional calculator to see how healthy a food option is To know that 'cross-contamination' means that bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects	
Mechanisms/ Mechanical systems Pop-up book 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 how to design a pop-up book which uses a mixture of structures and mechanisms: naming each mechanism, input and output accurately * To know how to use storyboarding ideas for a book	* To know how to follow a design brief to make a pop-up book, neatly and with focus on accuracy * To know how to make mechanisms and/or structures using sliders, pivots and folds to produce movement * To know how to use layers and spacers to hide the workings of mechanical parts for an aesthetically pleasing result	* To know how to evaluate the work of others and receiving feedback on own work * To know how to suggest points for improvement	To know that mechanisms control movement To understand that mechanisms that 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		
Electrical Systems Electronic Greeting cards	* To know how to design an electronic greetings card with a copper track circuit and components	* To know how to take a functional series circuit	* To know how to evaluate a peer's product against design criteria and suggesting modifications	To know the key components used to create a functioning circuit		

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To know that product analysis is critiquing the strengths and weaknesses of a product To know that 'mass production' is when a product is made in large quantities by a machine, usually in a factory To know that one-off production is when only one of a product is made by hand To know that 'bespoke' means a product was made for a particular reason or person To understand the development of personal message exchange through to the invention of the Penny Black stamp, and exchanging of greeting cards To know that a moodboard may include words, sketches, textures, colours, material samples etc. and can act as inspiration when designing	*To know how to create a labelled circuit diagram showing positive and negative parts in relation to the LED and the battery * To know how to write design criteria for an electronic greeting card * To know how to compile a mood-board relevant to my chosen theme, purpose and recipient	* To know how to create an electronics greeting card, referring to a design criterion * To know how to map out where different components of the circuit will go	that could be made to improve the reliability or aesthetics of it or to incorporate another type of circuit component * To know what Sir Rowland Hill invented and why it was important for greeting cards * To know how to analyse and evaluate a range of existing greeting cards	To know that copper is a conductor and can be used as part of a circuit To understand that breaks in a circuit will stop it from working To understand that a series circuit only has one path for the electrical current to flow from positive to negative To know that we use symbols to represent components in a circuit diagram To know the names of the components in a basic series circuit: crocodile wires, LED (light-emitting diode), battery holder, battery, cell		
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE		
Textiles Stuffed Toys	* To know how to design a stuffed toy considering the	* To know how to create a 3D stuffed toy from a 2D design	* To know how to test and evaluate an end	To know that blanket stitch is useful to reinforce the		

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	main component shapes required and creating an appropriate template * To know how to consider the proportions of individual components	* To know how to measure, mark and cut fabric accurately and independently * To know how to create strong and secure blanket stitches when joining fabric * To know how to thread needles independently * To know how to applique to attach pieces of fabric decoration * To know how to sew blanket stitch to join fabric * To know how to apply blanket stitch so the space between the stitches are even and regular	product and giving point for further improvements	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 small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely		
Digital World Monitoring Devices To know key developments in thermometer history 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 6Rs of sustainability To understand what a virtual model is and the pros and cons of traditional vs CAD modelling	* To know how to research (books, internet) for a particular (user's) /animal's needs * To know how to develop design criteria based on research * To know how to generate multiple housing ideas using building bricks * To know how to understand what a virtual model is and the pros and cons of traditional and CAD modelling * To know how to place and manoeuvre 3D objects, using CAD	* To know how to understand the functional and aesthetic properties of plastics * To know how to programme to monitor the ambient temperature and coding an (audible or visual) alert when the temperature rises above or falls below a specified range	* To know how to state an event or fact from the last 100 years of plastic history * To know how plastic is affecting planet Earth and suggest ways to make more sustainable choices * To know how to explain key functions in my program (audible alert, visuals) * To know how my product would be useful for an animal carer including programmed features	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 know that conditional statements (and, or, if Booleans) in programming are a set of rules which are followed if certain conditions are met		

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	* To know how to change the properties of, or combine one or more 3D objects, using CAD					
Themed knowledge	DESIGN	MAKE	EVALUATE	TECHNICAL KNOWLEDGE	COOKING & NUTRITION	HORTICULTURE
Structures Playgrounds To know what a 'footprint plan' is To know 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	* Know how to use research and develop criteria to inform design * Know how to develop innovative, functional and appealing products that are aimed at particular individuals or groups * Know how to generate, develop, and communicate ideas through discussion, actively seeking the views of others. * Know how to use annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and technology to generate, develop, model and communicate ideas * Designing a playground featuring a variety of different structures, giving careful consideration to how the structures will be used, considering effective and ineffective designs	* Know how to cut accurately and safely to a marked line. * Know how to join and combine materials with temporary, fixed or moving joining's. * Know how to use craft knife, cutting mat and safety ruler under supervision if appropriate. * Know how to use a glue gun with close supervision. * Know how to use nets and models to build prototypes * Know how to select from a wide range of materials based on functional and aesthetic properties * Know how explore and use different finishes taking into account the aesthetics of their product * To know how to build a range of play apparatus structures drawing upon new and prior knowledge of structures * To know how to measure, mark and cut wood to create a range of structures	* Know how to investigate and analyse a range of existing products based on functional and aesthetic qualities * Know how to evaluate their ideas and products against their own design criteria * Know how to seek and consider the views of others to improve their work * Know how key events and individuals in design technology have helped to shape the world Improving a design plan based on peer evaluation * To know how to test and adapt a design to improve it as it is developed * To know how to identify what makes a successful structure	* Know how to incorporate motor and a switch into a model. * Know how to control and monitor a product using a computer. To know that structures can be strengthened by manipulating materials and shapes	* Know how to analyse food products taking into account the properties of ingredients and sensory characteristics. * Know how to select and prepare foods for a particular purpose * Know how to develop a sensory food Taste by tasting a range of ingredients, food items vocabulary for use when designing. * To know how to weigh and measure using scales * Know how to cut and shape ingredients using appropriate tools and equipment e.g. grating * Know how to join and combine food ingredients appropriately e.g. beating, rubbing in. * Know how to decorate appropriately. * Know how to work safely and hygienically. * Know what a healthy diet is from an understanding of a balanced diet.	<u>Planting skills:</u> ☑ Know that we plant things for a purpose and to try the products that we have grown. ☑ Know how to care and protect what we are growing using various techniques e.g. watering, covering ☑ To know and understand about decay e.g. composting. ☑ Know how to Harvest what we have grown e.g. digging root crops such as potatoes and carrots without damaging them and pick peas and beans. <u>Tool Skills:</u> ☑ To know how to use various tools safely and without support to dig, plant



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		* To know how to use a range of materials to reinforce and add decoration to structures			Writing a recipe, explaining the key steps, method and ingredients Including facts and drawings from research undertaken Following a recipe, including using the correct quantities of each ingredient Adapting a recipe based on research Working to a given timescale Working safely and hygienically with independence Evaluating a recipe, considering: taste, smell, texture and origin of the food group Taste testing and scoring final products Suggesting and writing up points of improvements in productions Evaluating health and safety in production to minimise cross contamination To know that 'flavour' is how a food or drink tastes To know that many countries have 'national dishes' which are recipes associated with that country To know that 'processed food' means food that has been put through multiple changes in a factory	and remove weeds etc. Know how to use secateurs to prune – with supervision where necessary.
Mechanisms/ Mechanical systems Automata toys To know that an automaton is a hand powered mechanical toy To know that a cross-sectional diagram shows the inner workings of a product To understand how to use a bench hook and saw safely To know that a set square can be used to help mark 90° angles	* To know how to experiment with a range of cams, creating a design for an automata toy based on a choice of cam to create a desired movement * To know how linkages change the direction of a force * To know how to make things move at the same time * To know how to draw cross-sectional diagrams to show the inner-working	Measuring, marking and checking the accuracy of the jelutong and dowel pieces required Measuring, marking and cutting components accurately using a ruler and scissors Assembling components accurately to make a stable frame Understanding that for the frame to function effectively the components must be cut accurately and the joints of the frame secured at right angles Selecting appropriate materials based on the materials being joined and the speed at which the glue needs to dry/set	Evaluating the work of others and receiving feedback on own work Applying points of improvements Describing changes they would make/do if they were to do the project again	To understand that the mechanism in an automata uses a system of cams, axles and followers To understand that different shaped cams produce different outputs		
Electrical systems Steady hand game To know that 'form' means the shape and appearance of an object	* To know how to design a steady hand game - identifying and naming the components required * To know how to draw a design from three different perspectives	* To know how to construct a stable base for a game * To know how to accurately cut, fold and assemble a net * To know how to decorating the base of the game to a high quality finish	* To know how to test finished games, identifying what went well and making suggestions for improvement * To know how to gather images and information	To know that batteries contain acid, which can be dangerous if they leak To know the names of the components in a basic series circuit including a buzzer		

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To know the difference between 'form' and 'function' To understand that 'fit for purpose' means that a product works how it should and is easy to use To know that form over purpose means that a product looks good but does not work very well To know the importance of 'form follows function' when designing: the product must be designed primarily with the function in mind To understand the diagram perspectives 'top view', 'side view' and 'back'	* To know how to generating ideas through sketching and discussion * To know how to model ideas through prototypes * To know how to understand the purpose of products (toys), including what is meant by 'fit for purpose' and 'form over function'	Making and testing a circuit Incorporating a circuit into a base	about existing children's toys * To know how to analysing a selection of existing children's toys		To understand that it is important to wash fruit and vegetables before eating to remove any dirt and insecticides To understand what happens to a certain food before it appears on the supermarket shelf (Farm to Fork)	
Textiles Clothing	* To know how to design an item of clothing in accordance to specification linked to set of design criteria to fit a specific theme * To know how to annotate designs	* To know how to use a template when pinning panels onto fabric * To know how to mark and cut fabric accurately, in accordance with a design. * To know how to sew a strong running stitch, making small, neat stitches and following the edge *To know how to tie strong knots * To know how to decorate a piece of clothing-attaching objects	* To know how to evaluate work continually as it is created	To know 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		



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		using thread and adding a secure fastening * To know how to use different decorative stitches * To know how to sew accurately with even regularity of stitches				
Digital Systems Navigating the world 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 know how to write a design brief from information submitted by a client * To know how to develop design criteria to fulfil the client's request * To know how to consider and suggest additional functions for my navigation tool * To know how to develop a product idea through annotated sketches * To know how to place and manoeuvre 3D objects, using CAD * To know how to change the properties of, or combine one or more 3D objects, using CAD	* To know how to consider materials and their functional properties, especially those that are sustainable and recyclable (for example, cork and bamboo) * To know how to explain material choices and why they were chosen as part of a product concept * To know how to programme an N,E, S,W cardinal compass	* To know how explain that a program fits the design criteria and how it would be useful as part of a navigation tool * To know how to develop an awareness of sustainable design * To know how to identify key industries that utilise 3D CAD modelling and explain why * To know how the product concept fits the client's request and how it will benefit the customers * To know the key functions in my program, including any additions * To know how to explain the key functions and features of my navigation tool to the client as part of a product concept pitch * To demonstrate a functional program as part of a product concept	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		



TEALBY PRIMARY SCHOOL

'Aspire, Believe, Achieve'

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COURAGE **EXCELLENCE** **DETERMINATION** **RESPECT** **INSPIRATION** **COMPASSION**