	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
	HoH Design and Technology Curriculum Document	HoH Design and Technology Curriculum Document	HoH Design and Technology Curriculum Document	HoH Design and Technology Curriculum Document	HoH Design and Technology Curriculum Document	HoH Design and Technology Curriculum Document
	Year 1 - Design and Technology	Year 1 - Design and Technology	Year 1 - Design and Technology	Year 1 - Design and Technology	Year 1 - Design and Technology	Year 1 - Design and Technology
	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Focus	Structures Design a house (cardboard) for the three little pigs. Make buildings and furniture for the houses	Structures Design and make a building that could be used to play with.	Mechanisms Design and make a vehicle using wheels and axels		Cooking and Nutrition Design and prepare a salad with sweet and savoury elements	
Knowledge						
Application	Design Use their own personal experiences to support with generating their own ideas Identify and explain what they want to create. Use pictures to plan. Make Use overlapping joining techniques (such as tabs, L-shaped joins and slotted fitting) Know how to improve a freestanding structure to make it stronger, stiffer and more stable Mark and cut accurate shapes including within parts (using box saws) Evaluate Talk about their own ideas, saying what they like and dislike about them Evaluate the success of their product - is it strong, stiff and stable?	Design Use their own personal experiences to support with generating their own ideas Identify and explain what they want to create. Use pictures to plan. Make Use overlapping joining techniques (such as tabs, L-shaped joins and slotted fitting) Know how to improve a freestanding structure to make it stronger, stiffer and more stable Mark and cut accurate shapes including within parts (using box saws) Evaluate Talk about their own ideas, saying what they like and dislike about them Evaluate the success of their product - is it strong, stiff and stable?	Design Design a product for themselves following design criteria. Use their own personal experiences to support with generating their own ideas. Use pictures and words to plan. Begin to explain the purpose of the products. Make Understand that different mechanisms produce different types of movement: wheels and axles. Use a range of tools and equipment for cutting and joining to allow movement and finishing. Evaluate Explore and evaluate a range of products with wheels and axles (research). Test and evaluate the effectiveness of each mode of transport. Evaluate their ideas throughout and their structure against the original criteria - do the wheels turn and does it move?		Design Investigating a variety of fruit and vegetables (researching ingredients for salad). Design a product for themselves following design criteria. Begin to use models to communicate a design (make a salad with objects to help identify quantity). Make Know how to prepare themselves to work with food Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely. Understand, use basic principles of a healthy and varied diet and where a range of fruit and vegetables come from to prepare dishes Evaluate Evaluate their ideas throughout and their final product against the original criteria - is it healthy?	
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	Year 2 - Design and Technology	Year 2 - Design and Technology	Year 2 - Design and Technology	Year 2 - Design and Technology	Year 2 - Design and Technology	Year 2 - Design and Technology
	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Focus		Textiles - Making a badge to raise awareness of a belief		Cooking and Nutrition Make a sandwich (using locally grown vegetables?)	Mechanisms Moving minibeasts	
Knowledge						
Application		Design Design a product following a design criteria Identify the best tools and materials to use, explaining choices Explain how they will create their product Identify the best tools and materials to use, explaining choices Make Make their design using appropriate techniques Shape materials and components with some support Select appropriate tools for the materials Cut, shape and join fabric to make a simple garment. Use basic sewing techniques. Choose suitable materials and explain their choices depending on characteristics. Evaluate Identify strengths and possible changes they might make to their product (as they are being developed). Talk about existing products considering: use, materials, how they work, audience, where they might be used. Describe what went well linked to the design criteria. Talk about what they would do differently if they were to do it again and why.		Design Generate initial ideas and design criteria through investigating a variety of fruit and vegetables. Identify the purpose/audience of their intended product. Plan the stages of making by suggesting what to do next. Design a product following a design criteria. Identify the best tools and materials to use, explaining choices Make Know how to work with food hygienically. Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely. Understand, use basic principles of a healthy and varied diet and where a range of fruit and vegetables come from to prepare dishes. Evaluate Talk about their own product, saying what they like and dislike about them. Talk about what they would do differently if they were to do it again and why. Explain how the product meets the design criteria.	Design Use knowledge of existing products to develop their own ideas Plan the stages of making by suggesting what to do next. Model and communicate their ideas through talking, mock-ups and drawings. Identify the purpose/audienceof their intended product. Design a product following a design criteria Explain how the product will work and how it meets the design criteria Make Understand that different mechanisms produce different types of movement: levers and sliders. Assemble, join and combine materials together in different ways. Use a range of tools and equipment for cutting and joining to allow movement and finishing. Evaluate Explore a range of existing books and products that use simple sliders and levers (considering given design criteria). Identify strengths and possible changes they might make to their product (as they are being developed). Talk about their own ideas, saying what they like and dislike about them Talk about what they would do differently if they were to do it again and why	
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	Year 3 - Design and Technology	Year 3 - Design and Technology	Year 3 - Design and Technology	Year 3 - Design and Technology	Year 3 - Design and Technology	Year 3 - Design and Technology
	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Focus	Structures Design and make a stone age weapon/tool.		Mechanisms Egyptian 'shaduf style' plant watering device Knowledge Organiser Example		Shadow Puppets (Textiles) Create shadow puppets to be perform a show	
Knowledge						
Application	Design Identify and research the needs of others for a product. Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose. Use annotated sketches, models and ICT to develop, model and communicate ideas. Demonstrate how the design meets a range of requirements. Make Follow a design/plan when making a model/product. Select suitable and appropriate tools, equipment, materials and components, thinking about their purpose. Explain their choices of tools and materials, focusing on characteristics of each. Work accurately to make cuts and holes. Evaluate Identify what they would change to make the design better (as they are being developed). Identify how well their product meets its intended purpose and design criteria. Evaluate existing products considering: how well they have been made, materials, whether they work, how they have been made and are they fit for purpose.		Design Identify and research the needs of others for a product. Generate realistic ideas through discussion and design criteria for an appealing, functional product fit for purpose. Use annotated sketches to develop, model and communicate ideas. Explain how the product will work and what the purpose of it is. Make a prototype Make Understand and use lever and linkage mechanisms (how levers can be joined together to create more complex movements). Select suitable and appropriate tools, equipment, materials and components, beginning to think about their purpose. Measure, mark out, cut and assemble components with some accuracy. Evaluate Evaluate and test different types of linkages through prototyping - reverse motion, parallel, push and pull, crank and slider linkage. Think about their ideas (as they make progress) and be willing to change things to improve their work. Use design criteria to evaluate the finished product. Explain what could be changed to make a design better.		Design Describe the purpose of the product. Describe the design of the product using an accurately labelled sketch, words or ICT. Use what they know about properties of various fabrics to make sensible design choices. Make Understand how to securely join two pieces of fabric together. (e.g. applique, reverse applique, straight stitch, back stitch, cross stitch, blanket stitch and explore other stitches). Measure, mark out, cut, score and assemble components with some accuracy. Measure, tape/pin, cut and join fabric with some accuracy. Apply a range of finishing techniques with some accuracy to improved design. Join different textiles in different ways. Evaluate Evaluate existing products considering: how well they have been made, materials, whether they work, how they have been made and are they fit for purpose. Evaluate their product against the original design criteria and the purpose, making some suggestions for possible improvement.	
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	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Focus	Electrical systems (science link) Make a torch			Cooking and Nutrition Design and create a protein packed lunch for an athlete (e.g. pasta salad, rice and bean bowl, chicken pitta).		Structures (Shell structure) Lantern
Knowledge						
Application	Design Use research for design ideas. Generate, model and communicate ideas through annotated sketches and exploded diagrams. Develop their own design criteria and use these to inform their ideas. Make Understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs and buzzers. Select from and use materials and components, according to their functional properties and aesthetic qualities. Evaluate Evaluate existing products considering: how well they have been made, materials, whether they work, how they have been made, are they fit for purpose. I can test and evaluate the success of a final product. Evaluate their ideas and products against their own design criteria as they design and make changes as needed, following their evaluation.			Design Select from a range of ingredients to make appropriate food choices fit for purpose. Know about fresh and processed ingredients and seasonality in relation to food products. Explain how to be safe/hygienic Think about presenting product in interesting/ attractive ways Understand ingredients can be fresh, pre-cooked or processed Describe eat well plate and how a healthy diet means a variety/balance of food and drinks. Make Know how to use utensils and equipment including heat sources to prepare and cook food e.g. hobs, ovens. Use simple utensils and equipment to peel, cut, squeeze, grate and chop safely. Evaluate Explain importance of food and drink for active, healthy bodies. Evaluate the final product with reference to the design criteria and the views of others.		Design Use research for design ideas. Develop their own design criteria and use these to inform their ideas. Generate, model and communicate ideas through annotated sketches and exploded diagrams. Make Use knowledge of nets of cubes and cuboids and knowledge of how to construct strong, stiff shell structures. Select suitable and appropriate tools, equipment, materials and components, thinking about their purpose. Work accurately to measure, mark out, cut, and score materials. Apply a range of appropriate joining techniques to create strong and stable shell structures. Apply appropriate decorative and finishing techniques to enhance the appearance and functionality of their product. Work safely and hygienically when using tools and materials. Evaluate. Investigate and evaluate a range of shell structures including the materials, components and techniques used. Evaluate their work, explaining the purpose and process and reflecting on what they like, do not like and whether their product meets the design brief.
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	Year 5 - Design and Technology	Year 5 - Design and Technology	Year 5 - Design and Technology	Year 5 - Design and Technology	Year 5 - Design and Technology	Year 5 - Design and Technology
	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Focus		Mechanisms Mountain chair lift (e.g. ski lift, cable car).		Cooking and Nutrition Curry (Senses Dish) and Naan bread		Textiles Viking Purse
Knowledge						
Application		Design Develop a simple design specification to guide the development of their ideas and products. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. Understand that mechanical systems have an input, process and an output. Make Select from and use a range of tools and equipment with some accuracy to make products. Use gears and pulleys to speed up, slow down or change the direction of movement. Evaluate Test products and critically evaluate the quality of the design, functionality and fitness for purpose. Evaluate their own and others (classmates) products, identifying strengths and areas for development.		Design Make design decisions considering time and resources available. Carefully select materials and equipment, considering the intended use of the product and appearance. Select from a range of ingredients to make appropriate food products (understand and apply principles of a healthy and varied diet). Know about fresh and processed ingredients and seasonality in relation to food products and the source of different food products. Write a step-by-step recipe, including a list of ingredients, equipment and utensils. Make Produce suitable lists of tools, equipment and materials needed before making Weigh and measure accurately Know how to use utensils and equipment including heat sources to prepare and cook food e.g. hobs and ovens. Make, decorate and present the food product appropriately for the intended user and purpose. Prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source Use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. Evaluate Evaluate the product considering purpose and appearance, against design criteria		Design Use the internet and questionnaires for research and design ideas. Develop a simple design specification to guide the development of their ideas and products. Formulate step-by-step plans and, if appropriate, allocate tasks within a team. Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. Have a range of different ideas to solve a design problem. Create a range of different and innovative concept designs. Produce a logical, realistic plan and explain it to others Make design decisions considering time and resources available. Model and refine design ideas by making prototypes and using pattern pieces. Make Produce suitable lists of tools, equipment and materials needed before making. Understand how to securely join two pieces of fabric together. Explore how a 3-D textile product can be made from a combination of pattern pieces, fabric shapes and different fabrics. Select appropriate materials, fit for purpose; explain choices, considering functionality Select appropriate materials, tools and techniques. Mainly accurately measure, mark out, cut and shape materials and components. Mainly accurately assemble, join and combine materials/components. Mainly accurately apply a range of finishing techniques. Use tools and equipment safely and a good level of precision and accuracy focusing on the different skills needed. Evaluate. Investigate and analyse textile products linked to their final product considering: how well they have been made, materials, whether they work, how they have been made, are they fit for purpose, how sustainable they are and their environmental impact Research how sustainable materials are Evaluate the product considering purpose and appearance, against design criteria Evaluate their own and others (classmates) products, identifying strengths and areas for development.
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	Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
	Year 6 - Design and Technology	**Year 6 - Design and Technology**	**Year 6 - Design and Technology**	**Year 6 - Design and Technology**	**Year 6 - Design and Technology**	**Year 6 - Design and Technology**
	Module 1	**Module 2**	**Module 3**	**Module 4**	**Module 5**	**Module 6**
Focus		Mechanisms Design and make a sustainable windmill (wind turbine)	Structures Design and build a new type of protective shelter		Electrical Systems Electronic football game	
Knowledge						
Application		Design Identify and apply design criteria for a functional, stable and sustainable win turbine model. Generate and develop a range of creative design ideas using annotated sketches (and CAD). Plan construction stages logically (considering chosen materials and tools) and, if appropriate, allocate tasks within a team. Understand that mechanical systems have an input, process and an output. Design purposeful, functional, appealing products for the intended user that are fit for purpose based on a simple design specification. Make Accurately measure and mark materials according to our design plan. Safely and accurately cut and shape wood components using appropriate tools. Select from and use a range of tools and equipment with some accuracy to make products. Use gears and pulleys to speed up, slow down or change the direction of movement. Assemble components systematically to ensure the mechanism works smoothly. Construct products using permanent joining techniques Evaluate Research existing wind turbines to understand how they work and their environmental impact. Test products and critically evaluate the quality of the design, functionality and fitness for purpose. Identify the strengths and areas for improvement in our design and making process. Suggest modifications and justify our ideas to improve the product.	Design Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Identify features of design that will appeal to the intended user (functional, cost, sustainability and aesthetic) Create own design criteria and specification, giving importance to each criteria Create and evaluate multiple different innovative concept designs (against design criteria) Use annotated sketches, cross-sectional planning, exploded diagrams and views from various angles (using CAD) Clearly explain how parts of design will work, and how they are fit for purpose Make Create and follow a detailed step by step plan that competently selects and uses appropriate tools to measure, mark out, cut, shape and join construction materials to make a framework. Apply their knowledge to strengthen, stiffen and reinforce their 3-D framework where needed. Select appropriate materials, fit for purpose Explain material and tool choices, considering functionality and aesthetics Explain how product will appeal to audience; make changes to improve quality Assemble components to make working models Accurately assemble, join and combine materials/components Accurately measure, mark out, cut and shape materials/components Evaluate Create and evaluate multiple different innovative concept designs (against design criteria). Make modifications to the product as they go. Be resourceful with practical problems.		Design Develop a design specification for a functional product that responds automatically to changes in the environment. Create and evaluate multiple different innovative concept designs (against design criteria) Use annotated sketches, cross-sectional planning, exploded diagrams and views from various angles (using CAD) Make Apply their understanding of computing to program and control their products. Create and modify a computer control program to enable their electrical product to respond to changes in the environment. Use basic coding skills on the BBC Microbit. Programme a microbit to create a scoreboard and trigger a buzzer sound. Create a complete circuit for the microbit to connect effectively. Evaluate Identify products that use programmable electrical systems. Begin to research different applications of programming. Continually evaluate and modify the working features of the product to match the initial design specification.	