



Making (Exploring with media and materials)

	Year 3	Year 4	Year 5	Year 6
National Curriculum Objectives	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities			
Knowledge and Skills	Properties of materials: Soft wood Vs Hard wood discussion Laminated cardboard Woven materials , hessian Cutting: junior hack saw Work safely and accurately with a range of simple tools Select tools and techniques for making their product Measure, mark out, cut, score and assemble components with more accuracy Think about their ideas as they make progress and be willing change things if this helps them improve their work Joining: cotton, thread Glue , paperclips, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Measure, tape or pin, cut and join fabric with some accuracy Use finishing techniques strengthen and improve the appearance of their product using a range of equipment using Sandpaper for smoothing, PVA glue ,	Properties of materials: Cross laminating Card, wood Felt, calico, cotton , range of other household fabrics Cutting: Junior hack saw Select appropriate tools and techniques for making their product Measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques Nails, hammers, Joining: cotton, thread Glue , paperclips, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Join and combine materials and components accurately in temporary and permanent ways Sew using a range of different stitches, weave and knit Measure, tape or pin, cut and join fabric with some accuracy Use finishing techniques strengthen and improve the appearance of their product using a range of equipment using Sandpaper for smoothing, PVA glue , Use simple graphical communication techniques	Properties of materials: Cross laminating Card, wood Grey board Foam board Felt, calico, cotton , range of other household fabrics Cutting: using a craft knife, junior hack saw Select appropriate materials, tools and techniques Measure and mark out accurately Use skills in using different tools and equipment safely and accurately Joining: cotton, thread Glue , paperclips, masking tape, range of tapes staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Glue guns Cut and join with accuracy to ensure a good-quality finish to the product Achieve a quality product for a range of audiences with increased ascetic qualities using the computer to create specific images/logos	Properties of materials: Cross laminating Card, wood Grey board Foam board Felt, calico, cotton , range of other household fabrics Cutting: using craft knife, junior hack saw Select appropriate tools, materials, components and techniques Assemble components make working models Use tools safely and accurately Construct products using permanent joining techniques Make modifications as they go along Pin, sew and stitch materials together create a product Joining: cotton, thread Glue , paperclips, range of tapes, masking tape staples, treasury tags, split pins etc, what is best? PVA glue, Right angle card triangles Glue guns Achieve a quality product for a range of audiences with increased ascetic qualities using the computer to create specific images/logos

Being Imaginative

	Year 3	Year 4	Year 5	Year 6
National Curriculum Objectives	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.			
Knowledge and Skills	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	Generate ideas, considering the purposes for which they are designing via discussion Identify a purpose and establish criteria for a successful product. Draw up a specification for their design via an annotated sketch/photograph and making simple pattern pieces and prototypes Use a CAD programme to design a product Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Plan the order of their work, using given materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Plan the order of their work, choosing appropriate materials, tools and techniques	Generate ideas through brainstorming and identify a purpose for their product aimed at a particular audience Draw up a specification for their design via an exploded diagram and cross-sectional diagram using a CAD programme, and prototypes Develop a design specification of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail Plan the order of their work, choosing appropriate materials, tools and techniques

Evaluation

	Year 3	Year 4	Year 5	Year 6
National Curriculum Objectives	Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.			
Knowledge and Skills	Evaluate their product against original design criteria e.g. <i>how well it meets its intended purpose</i> Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their work both during and at the end of the assignment Evaluate their products carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Peers) understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate a product against the original design specification Evaluate it personally and seek evaluation from others Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability Understand how key events and individuals in design and technology have helped shape the world linked to design topic.	Evaluate their products, identifying strengths and areas for development, and carrying out appropriate tests Disassemble and evaluate familiar products to support and enhance their design. Use ICT to research. Evaluate their products as they are developed, identifying strengths and possible changes they might make Talk about their ideas, saying what they like and dislike about them, what they would change next time to make it more effective for the target audience. (Community/adults) Asking questions about the suitability understand how key events and individuals in design and technology have helped shape the world linked to design topic.

Technical Knowledge

	Year 3	Year 4	Year 5	Year 6
National Curriculum Objectives	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures & understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] Apply their understanding of computing to program, monitor and control their products.			
Knowledge and Skills	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce structures through weaving. Explore mechanical systems (CAMS) Vocab: To revisit what it means by making something stronger, stiffer and stable. Weaving & woven/reinforce/	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce structures. Design products using electrical systems (buzzers) Apply their understanding of computing to program, monitor and control their products. Vocab: To revisit what it means by making something stronger, stiffer and stable. Monitor/program/circuit (revisit vocab taught in science)	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce a range of more complex structures. Pulleys/Gears/Levers Vocab: To revisit what it means by making something stronger, stiffer and stable. Rotation/axels/gears/pulleys/levers	Apply knowledge of different characteristics of materials to strengthen, stiffen and reinforce a range of more complex structures. Design products using electrical systems. (Electricity and light, buzzers) Apply their understanding of computing to program, monitor and control their products. Vocab: To consolidate all prior vocabulary.

Cooking and Nutrition

	Year 3	Year 4	Year 5	Year 6
National Curriculum Objectives	Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.			
Knowledge and Skills	To know and understand the nutritional value of what they eat/drink during different seasons. Increase knowledge of food sources and how they are processed. E.g fish, veg Grow a food source from seed e.g. potatoes to use within a recipe. Weighing and measuring, chopping, mixing, blending, heating/cooling, grating Demonstrate hygienic food preparation and storage. Apply the rules for basic food hygiene and other safe practices e.g. <i>hazards relating to the use of ovens</i>	To know and understand the nutritional value of what they eat/drink during different seasons. Sugar and salt. Increase knowledge of food sources and how they are processed. E.g. Introduce the concept of the environmental impact of a food e.g. bananas Weighing and measuring, chopping, mixing, blending, heating/cooling, grating Apply the rules for basic food hygiene and other safe practices e.g. <i>hazards relating to the use of ovens</i>	To know and understand the nutritional value of what they eat/drink during different seasons. Fats. Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources. Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe Apply the rules for basic food hygiene and other safe practices e.g. <i>hazards relating to the use of ovens</i>	To know and understand the nutritional value of what they eat/drink during different seasons and the impact on the way their bodies function. Revisiting fats, sugar and salt. Increase knowledge of food sources and how they are processed. Environmental impact and sustainability of food sources. Weighing and measuring more accurately, chopping, mixing, blending, heating/cooling, grating/following a recipe Apply the rules for basic food hygiene and other safe practices e.g. <i>hazards relating to the use of ovens</i>