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| **DESIGN** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Use pictures and words to convey what they want to design/make. * Propose more than one idea for their product. * Use kits/reclaimed materials to develop more than one idea. * Model ideas with kits, reclaimed materials. * Select appropriate technique explaining: First… Next… Last…. * Explore ideas by rearranging materials. * Select pictures to help develop ideas. * Use drawings to record ideas as they are developed. * Add notes to drawings to help explanations. * Describe their models and drawings of ideas and intentions. | | * Develop more than one design or adaptation of an initial design. * Plan a sequence of actions to make a product. * Record the plan by drawing using annotated sketches. * Begin to use cross-sectional and exploded diagrams. * Use prototypes to develop and share ideas. * Think ahead about the order of their work and decide upon tools and materials. * Propose realistic suggestions as to how they can achieve their design ideas. * Consider aesthetic qualities of materials chosen. * Use CAD where appropriate. | | * List tools needed before starting the activity. * Plan the sequence of work e.g. using a storyboard. * Record ideas using annotated diagrams. * Use models, kits and drawings to help formulate design ideas. * Combine modelling and drawing to refine ideas. * Devise step by step plans which can be read / followed by someone else. * Use exploded diagrams and cross-sectional diagrams to communicate ideas. * Sketch and model alternative ideas. * Decide which design idea to develop. | |

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| **MAKE** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Discuss their work as it progresses. * Select materials from a limited range that will meet the design criteria. * Select and name the tools needed to work the materials. * Explain what they are making. * Explain which materials they are using and why. * Name the tools they are using. * Describe what they need to do next. | | * Prepare pattern pieces as templates for their design. * Cut slots. * Cut internal shapes. * Select from a range of tools for cutting shaping joining and finishing. * Use tools with accuracy. * Select from techniques for different parts of the process. * Select from materials according to their functional properties. * Plan the stages of the making process. * Use appropriate finishing techniques. | | * Make prototypes. * Develop one idea in depth. * Use researched information to inform decisions. * Produce detailed lists of ingredients / components / materials and tools. * Use a computer to model ideas. * Select from and use a wide range of tools. * Cut accurately and safely to a marked line. * Select from and use a wide range of materials. * Use appropriate finishing techniques for the project. * Refine their product – review and rework/improve. | |

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| **EVALUATE** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Explore existing products and investigate how they have been made. * Decide how existing products do/do not achieve their purpose. * Talk about their design as they develop and identify good and bad points. * Note changes made during the making process as annotation to plans/drawings. * Say what they like and do not like about items they have made and attempt to say why. * Discuss how closely their finished product meets their design criteria and how well it meets the needs of the user. | | * Investigate similar products to the one to be made to give starting points for a design. * Draw/sketch products to help analyse and understand how products are made. * Research needs of user. * Identify the strengths and weaknesses of their design ideas in relation to purpose/user. * Decide which design idea to develop. * Consider and explain how the finished product could be improved. * Discuss how well the finished product meets the design criteria of the user. * Investigate key events and individuals in Design and Technology. | | * Research and evaluate existing products (including book and web-based research). * Consider user and purpose. * Identify the strengths and weaknesses of their design ideas. * Give a report using correct technical vocabulary. * Consider and explain how the finished product could be improved related to design criteria. * Discuss how well the finished product meets the design criteria of the user. Test on the user! * Understand how key people have influenced design. | |

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| **FOOD** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Develop a food vocabulary using taste, smell, texture and feel. * Group familiar food products e.g. fruit and vegetables. * Explain where food comes from. * Cut, peel, grate, chop a range of ingredients * Work safely and hygienically. * Understand the need for a variety of foods in a diet. * Measure and weigh food items, non-statutory measures e.g. spoons, cups. | | * Develop sensory vocabulary/knowledge using, smell, taste, texture and feel. * Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury). * Follow instructions/recipes. * Make healthy eating choices – use the *Eatwell plate.* * Join and combine a range of ingredients. * Explore seasonality of vegetables and fruit. * Find out which fruit and vegetables are grown in countries/continents studied in Geography. * Develop understanding of how meat/fish are reared/caught. | | * Prepare food products taking into account the properties of ingredients and sensory characteristics. * Weigh and measure using scales. * Select and prepare foods for a particular purpose. * Work safely and hygienically. * Show awareness of a healthy diet (using the eatwell plate). * Use a range of cooking techniques. * Know where and how ingredients are grown and processed. * Consider influence of chefs e.g. Jamie Oliver and school meals, H Fearnley-Whittingstall sustainable fishing etc. | |

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| **TEXTILES** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Cut out shapes which have been created by drawing round a template onto the fabric. * Join fabrics by using e.g. running stitch, glue, staples, over sewing, tape. * Decorate fabrics with attached items e.g. buttons, beads, sequins, braids, ribbons. * Colour fabrics using a range of techniques e.g. fabric paints, printing, painting. | | * Develop vocabulary for tools materials and their properties. * Understand seam allowance. * Join fabrics using running stitch, over sewing, blanket stitch. * Prototype a product using J cloths. * Use prototype to make pattern. * Explore strengthening and stiffening of fabrics. * Explore fastenings (inventors?) and recreate some. * Sew on buttons and make loops. * Use appropriate decoration techniques. | | * Use the correct vocabulary appropriate to the project. * Create 3D products using patterns pieces and seam allowance. * Understand pattern layout. * Decorate textiles appropriately (often before joining components). * Pin and tack fabric pieces together. * Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). * Combine fabrics to create more useful properties. * Make quality products. | |

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| **STRUCTURES** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Explore how to make structures stronger. * Investigate different techniques for stiffening a variety of materials. * Test different methods of enabling structures to remain stable. * Join appropriately for different materials and situations e.g. glue, tape. * Mark out materials to be cut using a template. * Use a glue gun with close supervision. | | * Develop vocabulary related to the project. * Create shell or frame structures. * Strengthen frames with diagonal struts. * Make structures more stable by giving them a wide base. * Measure and mark square section, strip and dowel accurately to 1cm. | | * Use the correct terminology for tools materials and processes. * Use bradawl to mark hole positions. * Use hand drill to drill tight and loose fit holes. * Cut strip wood, dowel, square section wood accurately to 1mm. * Join materials using appropriate methods. * Build frameworks to support mechanisms. * Stiffen and reinforce complex structures. | |

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| **MECHANISMS, ELECTRICAL SYSTEMS, ICT** | | | | | |
| **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| * Join appropriately for different materials and situations e.g. glue, tape. * Try out different axle fixings and their strengths and weaknesses. * Make vehicles with construction kits which contain free running wheels. * Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels. * Roll paper to create tubes. * Cut dowel using hacksaw and bench hook. * Attach wheels to a chassis using an axle. * Mark out materials to be cut using a template. * Fold, tear and cut paper and card. * Cut along lines, straight and curved. * Use a hole punch. * Insert paper fasteners for card. * Experiment with levers and sliders to find different ways of making things move in a 2D plane. | | * Develop vocabulary related to the project. * Use mechanical systems such as gears, pulleys, levers and linkages. * Incorporate a circuit into a model. * Use electrical systems such as switches bulbs and buzzers. * Use ICT to control products. * Use lolly sticks/card to make levers and linkages. * Use linkages to make movement larger or more varied. | | * Develop a technical vocabulary appropriate to the project. * Use mechanical systems such as cams, pulleys and gears. * Use electrical systems such as motors. * Program, monitor and control using ICT. | |