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| **Happiness Responsibility Friendship Respect Courage** | | | |
| **DESIGN & TECHNOLOGY** | | | |
| **Design Make Evaluate Technical Knowledge** | | | |
| **Food and Cooking** | | | |
|  | |  | |
| **Year 5** | | **Year 6 Pan con tomate and Gazpacho** | |
| Knowledge | Skills | Knowledge | Skills |
| Y5 Bolognese sauce  I know one of the main ingredients in Bolognese is beef and it is reared.  I know there are environmental / welfare / cultural issue which need to be considered. | I can talk about the process of farm to fork.  I can taste the same product made by different manufacturers and express my likes, dislikes and offer suggestions for change.  I can work in a small team to adapt a recipe to make it more healthy, using my knowledge of The Eatwell Guide.  I can press, peel, spread, shape, mould, mix, stir, spoon, measure, cut out, grate, snip, cut. Independently.  I can work in a team to write our own recipe, create a shopping list, list the equipment needed and follow a recipe independently.  I can work safely and hygienically in a small team to produce a Bolognese sauce.  I can evaluate it as part of a small group and I can use constructive criticism as point for future development. | Y6 Spanish Soup and Spanish bread  I know there are a wide variety of breads, which are celebrated by different countries and religions around the world.  I can research the significance of different breads.  I know the bread is a carbohydrate and the reason we need these as a balanced diet.  i know about dietary requirements.  I know which tools/pieces of equipment to select and use with increased independence.  I can plan the process of bread making/ sou and I can annotate any changes to my plan.p | I can research Spanish breads and soup.  I can use my senses to explore taste and texture.  I can survey and collect data then present results  I can research different types of ingredient s to meet dietary requirements  I can research a key chef  I can adapt a recipe  I can follow a design brief and be creative based on my survey  I can weigh, measure, combine, stir, knead, shape, grate, chop and slice.  I can work with a high level of independence.  I can produce a recipe including utensils and equipment.  I can constantly evaluate my product against my criteria. |
| **Textiles** | | | |
| **Using CAD in Textiles** | |  | |
| **Year 5** | | **Year 6** | |
| Knowledge | Skills | Knowledge | Skills |
| I know how to research textile designers.  I know how to generate innovative ideas in a variety of ways.  I know how to use CAD to support design and template creating.    I know how to develop, model and communicate ideas.  I know how to formulate step by step plans.  I know how to select from a range of tools and resources  I know how to investigate and analyse textile products.  I know how to test and evaluate my products. | I can investigate and evaluate a range of existing textile products.  I can research textile designers.  I can investigate the properties of different textiles.  I can use CAD to create 2D patterns and 3D paper mock up.  I can improve textile skills including:  Threading needles  Joining using a variety of stitches  Joining the right side and making seams  Tacking  Start/ stopping a row of stitches.  I can out research using a survey.  I can provide detailed annotated drawings.  I can produce step by step plans and show modifications.  I can use an art program to design finishings.  I can produce a high-quality product showing evidence of IEA’s and FT’s.  I can evaluate throughout the process. | Strand not taught in Year 6 | Strand not taught in Year 6 |
| **Mechanisms** | | | |
|  | |  | |
| **Year 5** | | **Year 6** | |
| Knowledge | Skills | Knowledge | Skills |
| I know mechanical and electrical systems have an input, a process and an output.  I know how gears and pulleys can be used to speed up, slow down or change the direction of movement. | I can use a range of first-hand resources and photographs to explore pulley and gear systems  I can use observational drawings and questions to develop my understanding of how the systems work and the order.  I can use construction kits to construct a 2 gear (different size) design and look at ratio.  I can build an electric circuit safely to investigate direction and I can record it using the correct symbols.  I can carefully use specialist equipment, including a junior hacksaw and G clamp, with accuracy.  I can devise a SC by interviewing / questioning the intended user.  I can select annotated drawings or exploded diagrams for my plan.  I can construct a high-quality product which shows a range of skills and a high-quality finish.  I can be self-critical of my end product using the SC. | Strand not taught in Year 6 | Strand not taught in Year 6 |
| **Structures** | | | |
|  | | **Frame Structures** | |
| **Year 5** | | **Year 6** | |
| Knowledge | Skills | Knowledge | Skills |
| Strand not taught in Year 5 | Strand not taught in Year 5 | I know the difference between a permanent and portable frame.  I know how to strengthen, stiffen and reinforce 3D frameworks  I know about key events and individuals. | I can investigate and make annotated drawings of a range of portable and permanent frame structures including methods of construction and reinforcement.  I can research individuals/ key events who have designed significant frame structures in the local and wider world e.g. Eiffel Tower, The Ironbridge.  I can use construction kits to build 2D square/ triangular frameworks using diagonals for triangulation.  I can explore tubing as a method for reinforcement.  I can produce a class/ group design brief personalising it with a list of tools, materials and a step-by-step plan.  I can produce an annotated sketch of my plan.  I can develop my skills and techniques using a variety of tools, to construct a wooden frame.  I can join a variety of materials accurately.  I can produce an accurate, high-quality product which shows regular design evaluations and updates where necessary. |
| **Electrical Systems** | | | |
|  | | **More complex switches and circuits** | |
| **Year 5** | | **Year 6** | |
| Knowledge | Skills | Knowledge | Skills |
| Strand not taught in Year 5 | Strand not taught in Year 5 | I know how to use electrical systems in my products and I know how they work.  I know how to apply my understanding of computing to program, monitor and control my products.  I know and can use the technical vocabulary relevant to the project. | I can research a variety of products which responds to environmental change.-i.e alarm system.  I can determine the input and output.  I can investigate electrical sensors such as light dependent resistors (LDRs) and a range of switches such as push-to-make switches, push-to-break switches, toggle switches, micro switches and reed switches.  I can research famous inventors related to the project e.g. Thomas Edison – light bulb.  I can demonstrate how to measure, plan, template, cut and join accurately.  I can practise methods for making secure electrical connections.  I can be active in developing an authentic and meaningful design brief with the class.  I can produce a design annotating the electricity components and how they fit together (Exploded)  I can produce a step-by-step plan and a list of equipment needed.  I can produce high quality products showing my knowledge and understanding of FTs and IDEAs  I can critically assess my work throughout the process comparing it to the original design specification.  I can test the system to demonstrate its effectiveness for the intended user and purpose |