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| **Happiness Responsibility Friendship Respect Courage** |
| **DESIGN & TECHNOLOGY** |
| **Design Make Evaluate Technical Knowledge** |
| **Food and Cooking** |
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| **Year 3** | **Year 4** |
| Knowledge | Skills | Knowledge | Skills |
| I know there are a variety of dips and people have their own preferences.I know that dips can form part of a healthy diet; and that different combinations of ingredients, can affect the taste and texture of the product; I know about the importance of hygienic food preparation and storage; I know how to use tools safely and effectively; I know that combinations of ingredients, preparation and cooking can affect the end product* establish criteria for a successful product;
* to plan the order of their work before starting;

I know how to modify my dip and the quality of my will depend on the care, skills and accuracy given I know how to evaluate my product. | I can taste and record my opinions on a table. I can identify the different food groups in the ‘eatwell guide’ I can put commonly eaten foods in their correct food groups I have a good vocabulary to talk about food products and preparation I can identify important aspects of personal hygiene before handling food I can identify which foods should be kept in a fridge and why some foods are high risk; I can use sharp tools correctly to ensure safety and accuracy with adult observingI can apply what they have learnt through IDEs/FTs in my designing and making; I can identify that different dips are created for different needs, occasions and purposes; I can use my knowledge and research to choose ingredients for a dip; I can work through a sequence of tasks to produce a dip, making appropriate modifications; I can produce a quality dip to evaluate against others’ and the original design criteria. | I know biscuits can be sweet or savoury and can come in different shapes, textures and finishes.I know biscuits are produced for different users, seasons and celebrations.I know how to make biscuits and I can design a plan to show the process.I know how to make a change to a simple recipe. (at any stage –it can be the finish)I know how to add a finish to my product, display it and evaluate it. | I can explore existing savoury and sweet biscuits.I can identify ingredient which are organic, sourced locally, from the UK or wider world.I am aware of dietary requirementsI can respond to questions about alternative flavours and textures.I can explore different ways to present my product – shape, texture, colour, thickness.I can design a product to meet a design briefI can produce annotated drawingsI can work as a team / individualI can record key steps.I can weigh, mix, roll out, rub, shape, ` sprinkle and crumble. |
| **Textiles** |
| **2D shape to 3D product** |  |
| **Year 3** | **Year 4** |
| Knowledge | Skills | Knowledge | Skills |
| I know how to stiffen, strengthen and reinforce existing fabrics.I know how to securely join two pieces of fabric together.I know there is a need for patterns and seam allowances.I know how to use technical vocabulary relevant to 2D shapes and 3D products. | I can investigate a range of textile products which clearly show a variety of stitches, joins fabrics, finishing, techniques, fastenings and purpose I can consider how products have developed/ been invented in the textile industry – velcro, zips etcI can disassemble existing products to learn how 3D products use pattern and seam allowances.I can create a success criteria, based on the design brief, with the help of my teacher.I can sketch and annotate a range of ideas to create mock ups/ plans.I can show my planning process using a story board or flow chart.I can create product demonstrating skills I have learnt.I can finish my product using so it looks aesthetically pleasing yet maintaining the purpose.I can evaluate my product and consider other people’s viewpoints for improvement.  | Strand not taught in Year 4 | Strand not taught in Year 4 |
| **Mechanisms** |
|  | **Pneumatics** |
| **Year 3** | **Year 4** |
| Knowledge | Skills | Knowledge | Skills |
| Strand not taught in Year 3 | Strand not taught in Year 3 | I know how pneumatic systems work.I know how to use Pneumatic mechanisms. | I can research pneumatic systems through books, videos and products. I can show pneumatic systems through annotated sketches. I can use equipment such as scissors, tubing and syringes carefully. I can be part of a design brief. (working in a group)I can order the main stages of the making process. I can create a prototype and modify it.I can evaluate the product with the intended user. |
|  **Structures** |
| **Shell Structures** |  |
| **Year 3** | **Year 4** |
| Knowledge | Skills | Knowledge | Skills |
| I know how to construct strong, stiff shell structures.I know how to make and use nets of cubes and cuboids.( and more complex 3D shapes if required) | I can explore a range of shell structures thinking out the purpose, strength, shape and material ( including reclaimed)I can carefully undo a small package to identify the tabs and to recognise the net of the shape.I can practise my measuring, scoring, cutting and folding skills with accuracy to assemble a netI can use CAD to design a net, graphics and text.I can explore a variety of ways to stiffen and strengthen shell structures e.g shaping, ribbing, corrugating and laminating.I can work as a class to produce an authentic and meaningful design brief.I can use annotated sketches / prototypes to model my ideas.I can identify the main stages of making, the skills I need to use and the tools I will need. I can evaluate my final product against the purpose and the design brief. | Strand not taught in Year 4 | Strand not taught in Year 4 |
| **Electrical Systems** |
|  | **Simple circuits and switches** |
| **Year 3** | **Year 4** |
| Knowledge | Skills | Knowledge | Skills |
| Strand not taught in Year 3 | Strand not taught in Year 3 | I know how to use electrical systems in my products, such as series circuits incorporating switches, bulbs and buzzers and I know how they work I know how to apply my understanding of computing to program and control my products.  I know and can use the technical vocabulary relevant to the project. | I can investigate/ disassemble a variety of battery-operated products.I can explore different circuits including commercially made and own.I can use my own switch in my own circuit.I know the dangers of working with electricity.I understand which are the input and output components in a circuit.I can identify and correct faults in a simple circuit.I can use a simple computer control program with an interface box or standalone control box to physically control output devices e.g. bulbs and buzzers.I can design several battery-operated products following a design brief showing my knowledge of safety through exploded diagrams/ annotated diagrams/ labelled cross section diagrams.I can identify the main stages of the process and I can develop/ continually assess and modify my product to ensure it meets the brief and the intended user. |