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| **Happiness Responsibility Friendship Respect Courage** | | | |
| **DESIGN & TECHNOLOGY** | | | |
| **Design Make Evaluate Technical Knowledge** | | | |
| **Food and Cooking** | | | |
|  | |  | |
| **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 observing  I 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 requirements  I 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 brief  I can produce annotated drawings  I can work as a team / individual  I 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 etc  I 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 net  I 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. |