**Knowledge and Skills Map – Design Technology - Year 4**



|  |  |  |
| --- | --- | --- |
| **Developing, Planning and Communicating Ideas** | **Working with Tools, Equipment, Materials and Components to Make Products** | **Evaluating Processes and Products** |
| * Can they create a final design for their product based on initial ideas and revisions based on existing ideas?
* Can they create a detailed plan considering their target audience, design criteria and intended purpose?
 | * Can they use equipment and tools with increased accuracy and safely?
* Can they select the most effective materials, tools and techniques to use?
* Can they manipulate materials effectively using a range of tools and equipment?
* Can they measure, cut and assemble accurately?
 | * Can they think about their ideas as they progress and make changes to improve their work?
* Can they assess how well their product works in relation to the design criteria and intended purpose?
* Can they explain how they could improve their design and how their improvements would affect the original outcome?
 |
| **Electrical and Mechanical Components** | **Construction and Use of Materials** | **Textiles** |
| * Can they use a simple circuit and add components to it?
* Can they make a product which uses both electrical and mechanical components?
 | * Can they measure accurately to build effective structures?
* Can they use a range of techniques to shape and mould?
* Can they experiment with a range of techniques to increase stability in a structure?
* Can they use finishing techniques, showing an awareness of audience? E.g., sanding, varnishing. Glazing etc
 | * Can they consider which materials are fit for purpose and join them appropriately?
* Can they devise a template or pattern for their product?
* Can they explore a range of textures using textiles?
* Can they transfer a drawing into a textile design?
* Can they use artist to influence their textile designs?
 |

|  |
| --- |
| **Greater Depth** |
| * Can child offer creative response to the problem and think deeply and critically about other products and also about their own product?
* Can child follow a design brief and actively and accurately consider the end user’s needs and preferences throughout the process?
* Does the child display high quality presentation and precision in their design and make?
 |