**Knowledge and Skills Map – D.T – Working with tools, equipment, materials and**

**components to make quality products**



|  |  |  |  |
| --- | --- | --- | --- |
|  | **Knowledge** | **Units** | **Subject Aspects** |
| **EYFS** | Can the children use simple kitchen utensils correctly – spoon, knife, working, mixing bowls?  Can the children use adhesive products (glue) to join materials together? | All food related topics  All construction related topics. |  |
| **Year 1** | * Can they explain what they are making? * Can they select the appropriate resources and tools? * Can they explain which tools they are using and why? * Can they use tools safely? | Taxi  Shade and Shelter | Wheels, axels and chassis. Making car / taxi.  Design and make shelters / dens. |
| **Year 2** | * Can they join materials/components together in different ways? * Can they measure materials to use in a model or structure? * Can they use joining, folding or rolling to make it stronger? | Push and pull  Beach hut | Sliders, levers and linkages to make moving greeting card.  Strengthen cardboard structures |
| **Year 3** | * Can they use equipment and tool accurately and safely? * Can they select the most appropriate materials, tools and techniques to use? * Can they manipulate materials using a range of tools and equipment? * Can they measure, cut and assemble with increasing accuracy? | Greenhouse | Design, strengthening structures, wooden dowling, cut, tools, glue gun, sheet materials. |
| **Year 4** | * 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? | Tomb builders | Design make a shaduf - including lever or pulley mechanism. Use of hacksaws. |
| **Year 5** | * Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? * Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? | Moving mechanisms. | Use of cams to make a Chinese locking box. |
| **Year 6** | * Can they choose appropriate tools and materials to ensure that the final product will appeal to the audience? * Can they use a range of tools and equipment with good accuracy and effectiveness, within established safety parameters? | Engineer | Designing, building and strengthening bridges. Use of CAD design. |