

Design and Technology

Default statuses	Weighting
Taught	0
Almost/Approaching	1
Achieved	2
Mastered	3

	Design	Make	Evaluate
Stage 1	<p>Can tell someone about his/her design ideas.</p> <p>Can create a drawing of his/her idea and templates for his/her design.</p> <p>Can use IT to explore his/her design ideas. e.g. Use the internet to research design ideas or use a basic paint program to draw his/her design.</p> <p>Can generate and develop his/her ideas through discussion.</p> <p>Can make a mock up of his/her design and discuss it.</p>	<p>Through exploring and assembly he/she can find ways to make his/her structures more stable so they are freestanding. e.g. The use of a base, overlapping joints.</p> <p>Can decorate textiles using buttons, beads, sequins, braids & ribbons.</p> <p>Can cut along straight lines, curved lines and shapes marked out by a template.</p> <p>Can use tape and glue to create temporary joins, fixed joins, & moving joins.</p> <p>Can colour fabrics using paints to print and paint.</p>	<p>Can say what they like and do not like about existing products.</p> <p>Can say how well his/her designs and product met the given design criteria.</p> <p>Can explain strengths and weaknesses of existing products.</p>

		<p>Can use a simple circuit in a model. e.g. A closed circuit with a bulb.</p> <p>Can use simple mechanisms in his/her products e.g. Hinges, levers, wheels etc.</p> <p>Can roll, fold, tear and cut paper and card.</p> <p>Can choose the most appropriate joining technique to add a decoration to a piece of fabric.</p> <p>Can cut slots.</p>	
Stage 2	<p>Can design products that are functional and designed for purpose.</p> <p>Can create a cross sectional drawing of his/her design.</p> <p>Can use given shapes to create a design. e.g. create a net for packaging.</p> <p>Can design products that are innovative and appeal to individuals or groups.</p> <p>Can create a prototype of his/her design.</p>	<p>Can independently cut wood/ dowelling using a hacksaw and bench hook</p> <p>Can create a shell or frame structure, strengthening with diagonal struts.</p> <p>Can create simple joins with wood. e.g. Butt joint, dowel joint.</p> <p>Can use given sewing patterns or printing blocks to add detail to his/her designs.</p> <p>Can include a simple electrical circuit in his/her product that produces one outcome e.g. Light or sound.</p> <p>Can use simple mechanical systems in his/her products e.g. Gears, levers and cams.</p>	<p>Can evaluate his/her work against his/her own design criteria.</p> <p>Can collect feedback from others to find out how to improve his/her product.</p>

Can measure and mark a square section & dowelling to the nearest cm

Can use a bradawl to mark hole positions

Can use a hand drill to make tight holes and loose holes.

Can use a computer program to create a sequence to produce a repeating pattern. e.g. A light flashing on and off.

Can build frameworks using a range of materials: wood, card, corrugated plastic.

Can use a glue gun with close supervision.

Can use applique to decorate by gluing, and stitching.

Can cut internal shapes.

Can select the most appropriate joint for his/her design.

Can join fabrics using a running stitch and a wider range of stitches. e.g. Back stitch, chain stitch.

<p>Stage 3</p>	<p>Use research and exploration to identify and understand user needs e.g. the study of different cultures</p> <p>Can identify and solve his/her own design problems and understand how to reformulate problems given to him/her</p> <p>Can develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations</p> <p>Can develop and communicate design ideas using annotated sketches and detailed plans</p>	<p>Can create his/her own simple sewing pattern or printing block to use in his/her design.</p> <p>Can include an electrical circuit that produces more than one outcome e.g. Light and sound.</p> <p>Can use more complex mechanical systems in his/her products e.g. Pulleys and linkages.</p> <p>Can cut accurately to 1mm: strip wood, dowel & square section.</p> <p>Can use a screwdriver to secure materials with accuracy.</p> <p>Can select the most appropriate way to join or secure materials within his/her design.</p> <p>Select from and use a wider range of materials and components, taking into account their properties</p> <p>Select from and use specialist tools, techniques, processes, equipment and machinery precisely.</p>	<p>Can explore the impact of well known designers and inventors and how their products helped to shape the world.</p> <p>Investigates new and emerging technologies</p> <p>Tests, evaluates and refines his/her ideas and products against a specification, taking into account the views of intended users and other interested groups</p> <p>Can analyse the work of past and present professionals and others to develop and broaden his/her understanding</p>
<p>Stage 14</p>			