

Design and Technology New Knowledge Progression Document

Working design and technologically (designing and evaluating)

	Reception	Y1	Y2	Y3	Y4	Y5	Y6
Designing	<p>Talk to an adult about what they want to make</p> <p>Choose from a range of materials and stick photos of the chosen materials to create a plan</p>	<p>Talk about what they are going to make with peers</p> <p>Draw a simple diagram</p>	<p>Draw a simple diagram with single word labels</p>	<p>Draw a diagram with annotations</p>	<p>Create an exploded diagram</p>	<p>Create a cross sectional diagram (including from differing angles)</p>	<p>Create computer aided designs</p>
Evaluating	<p>Give opinions on existing products and their own finished piece</p>	<p>Evaluate existing products against a given design criteria</p>	<p>Evaluate own products against given design criteria</p>	<p>Evaluate own and existing products against own design criteria</p>	<p>Evaluate specific component parts of their own products and existing products</p>	<p>Undertake product research and evaluate the results of group feedback</p>	<p>Evaluate how technological advances impact the effectiveness of products</p>

Component 1: Know how to make a product by cutting, joining and finishing (make)

		EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Cooking and nutrition	Cut	Cut fruits (supervised by an adult), on a chopping board, using a given safety knife	Cut fruits independently Cut raw vegetables with adult support, using given safety knife	Cut fruits and vegetables, independently using bridge hold, choosing the appropriate safety knife			Cut any food using the appropriate safety knives	Cut using a serrated knife
	Join		Mix dry ingredients in a bowl without spilling	Mix wet ingredients in a bowl without spilling, choosing the correct bowl size	Cook ingredients for the correct time (from a given recipe) ensuring they do not burn	Adapt a given recipe, from a list of given ingredients e.g. swap blueberries for strawberries in muffin recipe	Choose an appropriate selection of ingredients (from a list of food groups) to create a healthy meal	Create their own balanced meal from a list of given ingredients
	Finish	Present fruits in an appetising way (on a skewer or in a bowl)	Present ingredients in the correct crockery (bowl or plate)	Cut vegetables to an equal size and present in an appetising way	Remove from cooking tin and present on a plate	Choose correct tin size before baking so finished product is the correct size when baked	Choose plate or dish to present, arranging food in an appetising way	Decide how different elements will be presented alongside one another

						Choose whether to cut or present whole		Decide if they will need more than one plate or dish
Mechanisms (thick card)	Cut	Cut along a given straight line	Cut using a range of small snips and long cuts along given straight and zig zagged lines	Cut along given curved lines and lines they have drawn themselves Cut own tape to appropriate length		Cut along templates that they have drawn themselves		
	Join	Use a tape dispenser to join paper or card	Join paper to card using tape (various lengths provided) Use split pins to join moving parts	Use tape to join paper and card	Choose an adhesive to create a fixed or moving pivot (e.g. tape, glue, blue tac or split pins) to join in the linkage	Create linkage with at least 2 moving and 2 fixed pivots	Choose where adhesive should go to join the CAM and not disrupt the flow of the movement	Use a correct choice of glue to join the CAMS
	Finish	Secure all corners	Ensure the moving mechanism is not visible on finished piece	Cut edges neatly	Cover levers with attachments	Ensure multiple moving mechanisms are not visible on finished piece	CAM mechanism is hidden	Ensure all CAM joins are neat (no adhesive is visible)

						(attachments and decorations to cover levers)		
Structures	Cut	Cut along a straight line (card, cardboard, plastic etc)	Use a hand saw (with support) saw to cut thin wooden dowels	Cut thin wooden dowels (first cut to be made by an adult)	Use a hand saw (when the first incision has been made) to cut thick wooden dowels	Use a hand saw to cut wood of varying thicknesses		
	Join	Use a glue stick (join paper or card)	Use a glue gun to apply dots of glue	Use a glue gun to apply strips of glue	Apply hot glue to one surface to join two or more pieces of wood (choose dots or lines)	Use a hot glue gun to join different thicknesses of wood	Attach electrical components to wood (with adult support), using the correct adhesive	Know how to insert new glue cartridge Attach electrical components to materials without adult support
	Finish	All materials to be joined securely	Structure to stand without support	Structure to hold a weight without collapse	Hot glue to be neat Structure to withstand shaking movement without collapse	Strengthening corners to be lined up with the edges of the structure	No visible adhesive Electrical components secured	No visible wires and electrical components to be secured without visible adhesives

Textiles	Cut:	Cut ribbon with scissors	Cut wool with scissors	Cut along a straight line along binca with scissors	Create a hole for stitching, using a single hole punch	Cut felt using safety scissors	Cut thin fabric with fabric scissors	Cut any material using sharp fabric scissors
	Join		Create running stitch with binca and wool	Attach binca to felt with lines of PVA glue Use running stitch to join binca to felt (with pre-cut holes in the felt)	Back stitch used to join two pieces of felt		Blanket stitch use to joining two edges of materials	Chain stitch used to join two pieces of material
	Finish:	Clearly show the back and forth pattern when weaving with ribbon or wool	Each stitch length to be the same	Running stitch used to create a pattern of different stitch lengths	Back stitch: have no gaps	Cross stitch: cross in the middle and each line in the cross to be the same length	Blanket line: stitch lines to be similar length, raw edge to be clear	Chain stitch: each loop to be clear and joined to the next one Embellish: beads, sequins or buttons to be securely attached

Component 2: Know how to use specific techniques (technical understanding)

	EYFS	Y1/Y2	Y3/4	Y5/6
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<p>Cooking and nutrition</p>	<p>Cut and taste a range of different fruits and vegetables</p> <p>Fruit kebabs</p>	<p>Cut, mix (without spilling) and taste ingredients to create a new dip (no cooking)</p> <p>Dips and dippers</p>	<p>Cut, mix, cook and taste ingredients to create one product</p> <p>Healthy baking</p>	<p>Combine ingredients to create a healthy, balanced meal</p> <p>Savoury meal</p>
<p>Mechanisms</p>	<p>Attach one piece of card to another to form one hinge movement</p> <p>Lift the flap pictures</p>	<p>Attach one piece of card to another to form a fixed pivot</p> <p>Attach one piece of card to another with two adhesive points to create a horizontal or vertical moving part</p> <p>Levers and sliders</p>	<p>Join one or more levers to produce a linkage</p> <p>Levers and linkages</p>	<p>Use premade CAMS to produce movements in different directions</p> <p>CAMS</p>
<p>Structures</p>	<p>Create a model using recycled boxes and recycled materials</p> <p>Junk modelling</p>	<p>Use wood and cardboard to create a structure</p> <p>Bridges</p>	<p>Use different thicknesses of wood only to create a structure</p> <p>Earthquake proof structures</p>	<p>Incorporate an electrical circuit into a wooden structure</p> <p>Electrical structures</p>
<p>Textiles</p>	<p>Weave ribbons around wood</p> <p>Weave wool through a frame (provided)</p> <p>Weaving</p>	<p>Create running stitch using wool and binca</p> <p>Running stitch</p>	<p>Use back stitch to join two pieces of felt</p> <p>Use cross stitch for decoration</p> <p>Use blanket stitch to outline or enhance pattern</p> <p>Sewing cushions</p>	<p>Use chain stitch and blanket stitch to join two pieces of material</p> <p>Use an appropriate stitch to attach beads, sequins and buttons to embellish</p> <p>Money wallet</p>

