

	Year R	Year 1	Year 2		
Designing		State what products they are designing and making			
Understanding		Describe what their products are for			
contexts, users	Manipulate materials to achieve a	Say how their products will work			
and purposes	planned effect	Say how they will make their products suitable for intended users			
	Construct with a purpose in mind, using a variety of resources	Use simple design criteria to help develop their ideas			
Generating,	Use simple tools and techniques	Generate ideas by drawing upon own experiences			
developing,	competently and appropriately	Use knowledge of existing products to help come up	with ideas		
modelling and	Selects appropriate resources and adapts	Develop and communicate ideas by talking and drawing/ use of IT			
communicating	work where necessary	Model ideas by exploring components and kits and by making mock ups/templates			
ideas	Select tools and techniques needed to				
	shape, assemble and join materials they				
	are using				
Making	Safely use and explore a variety of	Plan by suggesting what to do next			
Planning	materials, tools and techniques	Select from a rang e of tools and equipment, explaining their choices			
		Select from a range of materials and components acc	cording to their characteristics		
Practical skill and					
techniques		Follow procedures for safety and hygiene			
		Measure, mark out, cut and shape materials and con	nponents		
		Assemble, join and combine materials and compone	nts		
		Use finishing techniques including those from art and	d design		
		Use correct technical language for the project they a	ire undertaking		
<u>Evaluating</u>		Talk about their design ideas and what they are making	_		
Own ideas and		Make simple judgements about their products/ideas	against design criteria		
products		Suggest how their products could be improved			



Existing products		Explore what products are/what for/how work/how used/materials used/likes and dislikes about a product		
Technical knowledge	YR	Y1	Y2	
Mechanisms	Lots of opportunities to cut card and paper with accuracy and skill. Simple Flap Join – fold thin card in half and join one half to a model/structure or card. Bench fold Children need to fold the card in half, draw two straight lines and then cut the lines and push the box through. Wheels Investigate fixed axles and rotating wheels on toy cars	Opportunities to practise different joining techniques before completing final piece. Hinge Joins Simple hinge using paper or masking tape. Simple Slider Fold paper in half. Make a slider by folding paper. Slide through the two slots cut earlier. 3 key stages: 1. Tube of paper that a slider moves up/down inside 2. Slider through a bar fixed to the back of card 3. Add extra bar so that the slider moves vertically NB ensure slider is long enough to reveal picture Pivot Use of split pins. Teach how to make a hole for pin with a pencil into blu-tac Levers with linkage	Rotating (+) axle with fixed wheels – Axle held in place by a straw. Axle holder made with pegs. Axle holder using cardboard triangles	



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		Once children are confident making a simple lever and pivot, they can start to create movement using several levers attached to a linkage system.	
Structure	Junk modelling- selecting objects for a purpose Experiment with joining – choosing materials for a purpose. Opportunities to select best joining materials: tape- joining boxes PVA- collage/flaps Pritt- joining paper	Joining sheet material - flute joins to aid stability- Adding detail rooms to models using a variety of reclaimed materials focusing on stability Accuracy of cutting/finishing	
Food Technology	Work hygienically. Work safely. Use simple tools to cut, squeeze and mix ingredients. Begin to understand which foods keep us healthy.	Begin to measure and weigh ingredients. Use selected tools to carefully and with some accuracy – cut, peel, chop, grate, spread. Begin to use a food vocabulary using taste, smell, texture, feel. Understand and know foods that we need for a balanced diet. Name and sort foods into the five groups in the eatwell Plate. Know that all food comes from plants or animals.	Observe hygiene, health and safety hazards. Begin to choose/select appropriate materials to cut, peel, slice etc. To use these tools with increased accuracy. Develop food vocabulary. Group familiar foods, e.g. fruit and vegetable. Measure and weigh food items using non and statutory measures. Understand the need for a variety of foods in a diet. Combine food ingredients according to their sensory characteristics



Skills	Paper and card	Clay and play dough	Construction	Food
Cutting	Following a direction Cut to a point and stop Cut a straight line Cut a curve Holding scissors correctly (safety) Saw backward and forward motion.	Know how much pressure to apply to cutter Knife Cut away excess		Cutting Grating Peeling
	Measure from edge spread fingers to control ruler Draw a line			
Joining	Making a choice between resources such as: Sellotape- estimating amount needed. Know when to use Masking tape Pva glue- know to glue around the edge, coverage, wiping spreader Pritt stick Pegs Split pins Blue tac Paper clips Staples – overlap strengthen Nails and screws(practise skill using tap tap toy) Other means of joining		Overlapping bricks to strengthen a join Using a base	



	FlutingTabs			
Shaping and Finishing	Estimating: big or small piece Stencil Curling Fan Fold (edges meeting, pressing down) Rolling Concertina Nets (visualising the shape) Tabs Making a relevant choice Accuracy of measuring Purpose Choice for media- pens, paint, printing, fabric, paper, glue etc Design, draft, make, evaluate, make	Prepare work surface Rolling (sausage of for base) Squeezing (making a fist) Kneading Squashing Twisting Pinching Pressure (how much, to cut through or mark the clay?) Pulling Keeping the shape (slip to hold the shape) Templates	Adding detail to construction kits	
	adjustments			