

Progression in Design Technology

Mechanics	Attach wheels to chassis using an axle. Make vehicles with moving wheels Use a range of materials to create models with wheels and axles e.g. tubes, dowel and cotton reels.	Begin to use mechanical systems in their products e.g. pulleys and levers.	Use a cam to make an up and down mechanism.
Textiles	Sewing- using pre-cut fabric kits Wool, simple weaving, finger knitting	Sewing- running stitch and cross stitch.	Sewing- make an outfit from old t-shirts Gathering.
Cookery	Understand where food comes from. Group familiar food products e.g. fruit and vegetables. Prepare simple dishes-safely and hygienically-without using a heat source. Group foods into the five groups in The Eat well Plate. Cut, grate or peel ingredients safely. Measure or weigh using cups or electronic scales.	Cut materials accurately and safely by selecting appropriate tools. Know that a healthy diet is made up from a variety of different food and drink, as depicted in The Eat well Plate. Measure ingredients using scales. Prepare ingredients hygienically and using the appropriate utensils by following a recipe.	Understand the importance of correct storage and handling of ingredients. Combine ingredients appropriately e.g. beating or rubbing or cook ingredients, controlling the temperature of the oven or hob if cooking. Measure ingredients to the nearest gram and millilitre and calculate ratios of ingredients to scale up or down from a recipe. Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed. Create and refine recipes, including ingredients, methods, cooking times and temperatures
Electronics		Create series circuits. Create series and parallel circuits.	Create circuits that employ a number of components (such as LEDs, resistors and transistors).

Design, make, evaluate and improve	Explain what they are making and which materials they are using. Design products that have a clear purpose and an intended user. Use pictures and words to convey what they want to make. Make products, using a range of tools to cut, shape, join and finish. Say what they like and don't like about their product and explain why. Talk about how closely their finished product meets their design criteria.	Investigate existing products, including drawing them to analyse and understand how they are made. Plan a sequence of actions to make a product. Develop more than one design and prototypes. Refine work and techniques as work progresses, continually evaluating the product design. Identify strengths and weaknesses of their design ideas.	Talk about how closely their finished product meets their design criteria and meets the need of the user. Undertake research to inform design process. This may include surveys and interviews. Use prototypes, cross-sectional diagrams, exploded diagrams and CAD software to represent designs. Consider the views of others when evaluating their own work. Ensure products have a high quality finish, using art skills where appropriate. Justify their decisions about materials and methods of construction. Make suggestions on how their design/product could be improved.
Wood Work	Mark out materials to be cut using a template. With support cut strip wood/dowel/balsa using a hacksaw Use materials to practise drilling, screwing, nailing and gluing to strengthen products.	Create rectangular frames (measure and cut accurately) Make a simple moving structure with wood. Investigate how to make structures more stable e.g. by widening the base. Explore tightening and loosening screws. Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).	Use a glue gun Join materials using appropriate methods. Use a hand drill to drill tight and loose fit holes. Cut wood accurately to 1mm. Build frameworks using a range of materials e.g. wood, card and corrugated plastic.
Finishing	Sanding blocks Paint/felt tip	Explore different gradients of sand paper to ensure smooth finish. Paint with specific indoor outdoor paints.	Explore different techniques.