

D&T

DESIGN: developing, planning and communicating ideas

Year 1 Developing	Year 1 Expected	Year 2 Expected	Year 3 Expected	Year 4 Expected	Year 5 Expected	Year 6 Expected	Year 6 Exceeded
Use pictures and words to convey what they want to design and make. Design an appropriate product for a given target group.	Use labelled drawing to record ideas Identify a target group for what they design and make.	Explain what they are making using notes. Identify a purpose for what they intend to design and make.	Investigate similar products to the one to be made to give starting points for a labelled design. Identify purpose and establish criteria for success.	Develop more than one design making labelled drawings from different views showing specific features.	Sketch alternative ideas and select one idea to develop in depth.	Develop a design specification which can be read/ followed by someone else.	Continue designing in detail; include technical details of materials and processes; produce a final design proposal; working drawing; cutting list; details to allow another person to make the product.

MAKE: working with tools, equipment, materials and components

Fold tear and cut paper and card along straight and curved lines.	With help measure, mark out, cut and shape materials e.g. paper, card and pieces of dowel.	Measure, mark out, cut and score independently but not necessarily accurately.	Measure, mark out, cut and score materials independently within 1cm accuracy.	Measure, mark out, cut and shape materials independently within 5mm accuracy.	Measure, mark out, cut and shape materials independently within 3mm accuracy.	Measure, mark out, cut and shape materials independently within 1mm accuracy e.g. use a craft knife and safety ruler to cut slots.	make use of more specialist equipment to mark out
With support create simple moving vehicles with wheels.	Make vehicles with construction kits which contain free running wheels.	Attach wheels to a chassis using an axel using a range of materials such as tubes, dowel and cotton reels.	Make structures more stable giving them a wide base Or Create simple frame or shell structure.	Incorporate a circuit with a bulb or buzzer into a model Or Create a shell or frame structure, strengthening it using diagonal struts	Incorporate a motor and a switch into a model. Or Build a framework to support mechanisms.	Control a model using an ICT control programme Or Use a cam to make an up and down mechanism	Describe how more complex electrical circuits and components can be used to create functional products Or understand how more advanced mechanical systems used in their products enable changes in movement and force

MAKE: food							
Sort food based on simple properties e.g. they grow on a tree. Work safely and hygienically when handling different types of food.	Group familiar food products e.g. vegetables. Work safely and hygienically to chop and peel a range of ingredients e.g. fruit and vegetables	Understand the need for a variety of food in a diet Work safely and hygienically to cut and grate a range of ingredients accurately	Understand the basic food groups. Work safely and hygienically to join and combine a range of ingredients e.g. create healthy snack foods	Make healthy eating choices based on a balanced diet. Work safely and hygienically to prepare and cook savoury dishes.	Apply understanding of a balanced diet e.g. plan a balance meal. Work safely and hygienically to join and combine ingredients e.g. beating and rubbing in	Understand and apply the principles of nutrition. Work safely and hygienically to select and prepare food for a specific purpose e.g. a gluten free party	Suggest alternative ingredients to adapt dishes to be healthier Suggest alternatives of an idea to suit different dietary needs
MAKE: fabric							
Cut freeform shapes from a range of fabrics. Use glue to join fabrics	Cut out shapes that have been create by drawing round a template. Join fabrics using glue or staples	Join fabrics using running stitch.	Join fabrics using running stitch, back stitch and over sewing.	Create a simple pattern than shows an understanding of seam allowance.	Create simple 3D products using pattern pieces and seam allowances e.g. pin cushions	Create more complex pattern pieces and show an understanding pattern layout.	Know the properties of different textile materials and choose the appropriate material for different designs and products
EVALUATE							
Talk about what they like and dislike about the items they have made.	Talk about what they like and dislike about the items they have made and discuss possible changes they would make next time.	Discuss the changes they have made during the making process and explain why.	Identify the strengths and weaknesses of the design/product they have made.	Discuss how well the finished product meets the design criteria.	Discuss how well the finished product meets the design criteria and how well it meets the needs of the user.	Reflect on their work using the design criteria stating how well the design and finished product fits the needs of the user.	Can structure, organise and effectively use a detailed product analysis system autonomously.