

DT

Progression of Knowledge and Skills

Year Groups	EYFS	Year 1	Year 2	
Design				
Recording	<p>Create collaboratively, sharing ideas, resources and skills. (DM, EA&D, 3-4 years)</p> <p>ELG, EA&D, Creating with Materials Share their creations, explaining the process they have used.</p>	Use pictures and words to convey what they want to design / make.	Use drawings to record ideas as they are developed. Add notes to drawings to help explanations.	
Prototypes	Join different materials and explore different textures. (DM, EA&D, 3-4 years)	Use mock-ups e.g. recycled material trial models to try out their ideas.	Propose more than one idea for their product.	
Planning	Develop their own ideas and then decide which materials to use to express them. (DM, EA&D, 3-4 years)	Select pictures to help develop ideas.	Explore ideas by rearranging materials.	
Making				
Tools	<p>ELG, EA&D, Creating with Materials Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	Name the tools they are using.	Select and name the tools needed to work the materials.	
Materials	Explore different materials freely, to develop their ideas about how to use them and what to make. (DM, EA&D, 3-4 years)	Select materials from a limited range.	Explain which materials they are using and why.	

Finishing		Decorate using a variety of techniques.	Decorate using a variety of techniques.	
Working	Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. (DM, EA&D, 3-4 years)	Explain what they are making. Cut out shapes which have been created by drawing round a template. Join materials in a variety of ways.	Discuss their work as it progresses. Explain what they are making. Cut out shapes which have been created by drawing round a template. Join materials in a variety of ways.	
Evaluate				
Existing Products		Explore existing products and investigate how they have been made (including teacher-made examples).	Decide how existing products do / do not achieve their purpose.	
Considering User				
Improving	Return to and build on their previous learning, refining ideas and developing their ability to represent them. (DM, EA&D, 3-4 years)	Talk about their design as they develop and identify good and bad points. Say what they like and do not like about items they have made and attempt to say why.	Discuss how closely their finished product meets their own design criteria.	
Individuals in technology				
Technical skills				
Sewing				
Measuring				
Strengthening		Know some ways of making structures stronger. Show how to stiffen some materials. Know how to make a simple structure more stable.	Know some ways of making structures stronger. Show how to stiffen some materials. Know how to make a simple structure more stable.	

Mechanical		Attach wheels to a chassis using an axle. Know some different ways of making things move in a 2-D plane.	Attach wheels to a chassis using an axle. Know some different ways of making things move in a 2-D plane.	
Using ICT			Use ICT to communicate ideas.	
Electrical				
Cooking and nutrition				
Choices		Know about the need for a variety of foods in a diet. Group familiar food products e.g. fruit and vegetables.	Know about the need for a variety of foods in a diet. Group familiar food products e.g. fruit and vegetables.	
Cooking		Cut and chop a range of ingredients. Work safely and hygienically.	Cut, peel, grate, chop a range of ingredients. Work safely and hygienically.	
Sourcing		Understand where food comes from.	Know about the Eatwell Plate.	

Year Groups	Year 3	Year 4	Year 5	Year 6
Design				
Recording	Record the plan by drawing sketches with labels.	Record the plan by drawing using annotated sketches.	Record ideas using annotated diagrams.	Record ideas by using exploded diagrams and cross-sections.
Prototypes	Develop more than one design or adaptation of an initial design.	Use models and kits to help formulate design ideas.	Sketch and model alternative ideas.	Make and use prototypes to develop and test ideas.
Planning	Follow a plan including some choices, to make a product.	Plan out a sequence of actions to make a product.	Plan several possible sequences and decide which design idea to develop. Produce detailed lists of ingredients / components / materials and tools.	Devise step by step plans which can be followed by someone else. Use researched information to inform decisions.

Making

Tools	Use given tools appropriately. Select from a range of tools for cutting, shaping, joining and finishing.	Decide upon appropriate tools and materials. Use tools with accuracy.	Choose appropriate tools and use properly.	Select from and use a wide range of tools and use accurately. Use CAD where appropriate.
Materials	Select from materials according to their functional properties.	Decide on appropriate materials.	Consider aesthetic qualities of materials chosen.	Select from and use a wide range of materials.
Finishing	Choose from a selection of finishes.	Use appropriate finishing techniques.	Select from a range of possible finishes.	Refine their product by adapting finishing techniques.
Working	Prepare pattern pieces as templates for their design.	Select from techniques for different parts of the process.	Cut accurately and safely to a marked line.	Develop one idea in depth.

Evaluate

Existing Products	Investigate similar products to the one to be made to give starting points for a design.	Draw / sketch existing products in order to analyse and understand how products are made.	Research and evaluate existing products.	Investigate key events and individuals in design and technology.
Considering User	Research needs of user. Discuss how well the finished product meets the user's design criteria.	Identify the strengths and weaknesses of their design ideas in relation to purpose / user.	Consider user and purpose.	Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user.
Improving	Explain what they would change next time.	Consider and explain how the finished product could be improved.	Consider and explain how the finished product could be improved related to design criteria.	Identify the strengths and weaknesses of their design ideas. Report using correct technical vocabulary.
Individuals in technology	Investigate who developed familiar products and when.	Investigate key events in design and technology.	Investigate influential individuals in design and technology.	Understand how key people have influenced design in a variety of contexts.

Technical Skills

Sewing	Sew on buttons and make loops.	Sew on buttons and make loops.	Understand pattern layout with textiles.	Create 3D textile products using pattern pieces.
Measuring	Use a ruler to measure accurately to 1cm	Use a ruler to measure accurately to 0.5cm	Cut strip wood, dowel, square section wood accurately to 0.5cm	Cut strip wood, dowel, square section wood accurately to 1mm.

Strengthening	Strengthen frames with diagonal struts.	Strengthen frames with diagonal struts.	Build frameworks to support mechanisms.	Stiffen and reinforce complex structures.
Mechanical	Use linkages to make movement larger or more varied.	Use linkages to make movement larger or more varied.	Use mechanical systems such as cams, pulleys and gears.	Use mechanical systems such as cams, pulleys and gears.
Using ICT	Use ICT to control products.	Use ICT to control products.	Program, monitor and control using ICT.	Program, monitor and control using ICT
Electrical	Incorporate a circuit into a model.	Use switches, bulbs and buzzers.	Use electrical systems such as motors and switches	Design and use electrical systems such as motors and switches

Cooking and Nutrition

Choices	Follow instructions / recipes.	Make healthy eating choices - use the Eatwell plate.	Understand and apply the principles of a healthy and varied diet	Choose ingredients to support healthy eating choices when designing their food products.
Cooking	Join and combine a range of ingredients.	Prepare and cook using different cooking techniques.	Join and combine a widening range of ingredients. Select and prepare foods for a particular purpose.	Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques
Sourcing	Begin to understand the food groups on the Eat Well Plate.	Know where and how ingredients are reared and caught.	Understand seasonality.	Know where and how ingredients are grown and processed.