



Design and Technology Skills Coverage

Skill	Y3	Y4	Y5	Y6
Designing	Use words, labelled sketches and models to recognising that designs have to meet a range of needs, including being fit for purpose.	Use different sources to inform design ideas in words, labelled sketches, diagrams and models, keeping in mind fitness for purpose and the intended user.	Use a range of sources to clarifying/share ideas through discussion, labelled sketches, cross-sectional diagrams and modelling. Recognise that ideas have to meet a range of needs.	Develop detailed criteria for designs for a specific audience, sharing ideas through cross-sectional and exploded diagrams, prototypes and patterns.
Using ICT to aid design	Use ICT to create a labelled design or plan, in detail.	Use ICT to create alternatives designs for an initial design.	Use CAD and CAM packages to suggest alternative design ideas and explain their ideas.	Use CAD/CAM packages to design moving parts of a design and explain their ideas.
Working from plans	Make realistic plans with processes, equipment and the materials needed.	Make realistic step by step plans, reflecting on designs as the product develops.	Work from own detailed plans, changing them where needed.	Evaluate work as it develops and modify their approach in the light of progress.
Opinions and influences	Compare and contrast great bridge designs, explaining why a	Describe the work of a favourite fashion designer and explain	Research the work done by textile artists and say what they like	Research cultural traditions and evidence



	particular design is significant in engineering history.	why they like his/her designs.	about a piece, identifying the techniques and materials used in creating it and the aesthetic value.	their influence in their own work.
Existing product evaluation	Investigate the design features of familiar existing products.	Explain how an existing product is useful to the user.	Investigate the design features of a familiar existing product in the context of the culture or society in which it was designed or made.	Explain the form and function of familiar existing products.
Evaluation	Suggest improvements to products made and describe how to implement them.	Identify what has worked well and what could be improved, evidencing and explaining the results of research.	Test and evaluate products against a detailed design specification and make adaptations as they develop the product.	Demonstrate modifications made to a product, as a result of ongoing evaluation, by themselves and others.
History & culture	Explain the impact of a design or designer on design history and how this has helped to shape the world.	Explain how fashions and fabrics have changed over time and how this has affected fashion. Explain how the design of a product has changed over time.	Create a timeline to sequence the development of a design over time and describe how technology has influenced it.	Describe how an individual in the field of design and technology has helped shape the world.



Tools	Select the appropriate tools and explain choices.	Analyse the potential of a range of tools and use them with accuracy.	Name and select appropriate tools for a task and use them with precision.	Use more complex tools with increasing accuracy.
Materials	Plan which materials will be needed for a task and explain why.	Choose from a range of materials showing an understanding of their different characteristics.	Select and combine materials with precision.	Choose the best materials for a task, showing an understanding of their working characteristics.
Health and Safety	Follow health and safety rules for cooking and baking activities.	Follow health and safety rules when working with materials and substances.	Select and name appropriate tools for specific jobs and demonstrate how to use them safely.	Demonstrate how their products taking into account the safety of the user.
Repair and Maintenance	Try an alternative way of fixing something, if their first attempt isn't successful.	Describe how a product could be made better, stronger or more sustainable.	Recycle, repair and mend old clothes/tools and explain why this is a good idea.	Paint, glue, nail and sand to rejuvenate a damaged, faulty or old object.
Textiles	Create a simple pattern for a design.	Use a simple pattern to create a life-sized item of clothing.	Create a 3-D product using a range of materials and sewing techniques.	Combine fabrics to create more useful properties and make a product of high quality, checking for snags and glitches.



Card Making	Cut slots in card and create nets.	Use more complex pop-ups.	Combine materials with temporary or fixed joints.	Combine materials with moving joints.
Cutting	Measure and mark wood/dowel.	Cut internal shapes.	Cut safely and accurately to a marked line.	Use a craft knife, cutting mat and safety ruler with one to one supervision if needed.
Joining	Join fabrics using a running stitch.	Use a glue gun with close supervision (one to one).	Use a glue gun with close supervision.	Join materials, using the most appropriate method for the materials or purpose.
Structures	Create a shell or frame structure using diagonal struts to strengthen.	Prototype and build frame and shell structures, showing awareness of how to strengthen, stiffen and reinforce.	Build a framework using a range of materials (e.g. wood, card and corrugated plastic) to support mechanisms.	Select the most appropriate materials and frameworks for different structures, explaining what makes them strong
Mechanisms	Create and use simple gears, pulleys, cams, levers and linkages.	Use pulleys, levers and linkages in their products.	Use cams or gears in their products.	Select the most appropriate mechanical system for a particular purpose.



Electricity	Evaluate their own programme, refine and improve it.	Create a solution to a problem using a control output device that has a sequence of events that activate it	Monitor and control more than one output, in response to changes	Develop, try out and refine sequences of instructions to effectively monitor, measure and control events.
ICT	Evaluate their own programme, refine and improve it.	Create a solution to a problem using a control output device that has a sequence of events that activate it.	Monitor and control more than one output, in response to changes.	Develop, try out and refine sequences of instructions to effectively monitor, measure and control events.
Preparing and Cooking Food	Combine a variety of ingredients using a range of cooking techniques.	Measure and weigh ingredients appropriately to prepare and cook a range of savoury dishes.	Combine food ingredients appropriately (e.g. kneading, rubbing in and mixing)	Use appropriate tools and equipment, weighing and measuring with scales.
Nutrition	Describe what a balanced diet is.	Make healthy eating choices and explain why.	Evaluate meals and consider if they contribute towards a balanced diet.	Plan how they can have a healthy/affordable diet.
Origins of Food	Identify food which comes from the UK and other countries in the world.	Explain some of the processes that foods go through to	Explain what times of year particular foods are in season.	Explain how ingredients were grown, reared, caught and processed.



Saltersgate Junior School Subject Progression Map – Whole School

		preserve/make them more appealing.		
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