



Marlborough Primary Academy School

Progression of Skills and Knowledge for DT

Developing, Planning and communicating ideas

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> Explain what they are making -Shows two-channelled attention Can listen and do for a short amount of time. Responds to instructions involving a two-part sequence. Listens and responds to ideas expressed by others in conversation or discussion. Uses talk to organise, sequence and clarify thinking, ideas, feelings and events. 	<ul style="list-style-type: none"> Follow verbal instructions Explain what they are making and which materials they are using Name the tools they are using Describe what they need to do next Select materials from a limited range that will meet the design criteria Explore ideas by rearranging materials Model ideas with kits, reclaimed materials Select pictures to help develop ideas Use drawings to record ideas as they are developed 	<ul style="list-style-type: none"> Select appropriate technique explaining First.....Next.....Last.... Select and name the tools needed to work the materials Use pictures and words to convey what they want to design and make Describe their models and drawings of ideas and intentions Use kits/reclaimed materials to develop an idea Discuss their work as it progresses Add notes to drawings to help explanations 	<ul style="list-style-type: none"> Investigate similar products to the one to be made to give starting points for a design Draw/sketch products to help analyse and understand how products are made Plan a sequence of actions to make a product Record the plan by drawing(labelled sketches) or writing 	<ul style="list-style-type: none"> Think ahead about the order of their work and decide upon tools and materials Develop more than one design or adaptation of an initial design Propose realistic suggestions as to how they can achieve their design ideas 	<ul style="list-style-type: none"> Investigate products/images to collect ideas Sketch and model alternative ideas Develop one idea in depth Combine modelling and drawing to refine ideas Plan the sequence of work using a storyboard Record ideas using annotated diagrams Use a computer to model ideas 	<ul style="list-style-type: none"> Use models, kits and drawings to help formulate design ideas Make prototypes Use found information to inform decisions Draw plans which can be read/followed by someone else Give a report using correct technical vocabulary
Related National Curriculum Objectives in italics:	<i>Design</i> -design purposeful, functional, appealing products for themselves and other users based on design criteria -generate, develop, model and communicate their ideas through talking, drawing, templates, mock-		<i>Design</i> - use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups -generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design			



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	ups and, where appropriate, information and communication technology					
Food						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Peel hand, e.g. satsuma, banana Mix/stir - to loosely combine Ingredients Spoon - ingredients between containers Measure - using a spoon, e.g. flour, dried fruit - count ingredients e.g. peas Cut - soft foods with butter knife, e.g. banana, strawberries -Shows increasing control over an objects including pushing and pulling it. -Children show good control and co-ordination in large and small movements.	Peel - with a swivel peeler with adult support Spread - soft ingredients, e.g. jam Snip - fresh herbs, spring onions Grate - soft foods, e.g. cheese, cucumber Cut - low resistance foods with a table knife in to equal size pieces/slices, e.g. canned pineapple slices, sticks of pepper, mushrooms - use a fork to secure foods	Peel - with a swivel peeler with adult support Juice - using a juicer to extract juice, e.g. orange Measure - using different size measuring spoons, e.g. Liquids - refer to ingredients in simple fractions, e.g. half, quarter Thread - thread soft foods onto cocktail sticks, e.g. fruit kebab – strawberries, satsuma segments Cut - low resistance foods with a table knife in to equal size pieces/slices, e.g. canned pineapple slices, sticks of pepper, mushrooms - use a fork to secure foods	Peel - with a swivel peeler with supervision Spread - ingredients evenly over another food Grate - firmer foods, e.g. carrots, apples Snip - with greater dexterity and control, e.g. to shred lettuce or cabbage leaves for salad Cut out - placing the cutter in positions to make good of the material available and avoid waste Cut medium resistance foods with a vegetable knife, e.g. cucumber. use a fork or the claw grip to secure foods medium resistant or partly prepared foods using a bridge hold, e.g. cut half a tomato into a quarter, halve large grapes Shape and mould	Press - using a garlic press Peel - with a swivel peeler with supervision Mix/stir - any ingredients thoroughly - whisk foods using a hand whisk Spoon - be able to use two spoons to transfer ingredients into different size/shape containers with minimal spillage Measure - using measuring jug & digital or analogue scales with support to obtain accuracy Grate firmer foods, e.g. carrots, apples Snip with greater dexterity & control, e.g. shred lettuce or cabbage leaves Cut higher resistance food with a vegetable knife,	Mix/stir - fold ingredients together carefully Spoon - be able to gauge the quantities spooned to ensure an equal amount of ingredient in each container Measure - using a measuring jug independently and accurately - using digital or analogue scales accurately and independently Grate - using the zesting part of a grater, e.g. lemon, orange - use a nutmeg grater	Peel - with a swivel peel to create food ribbons to be used in a dish, e.g. courgette/carrot ribbons with supervision Measure - using a measuring jug independently and accurately - using digital and analogue scales accurately and independently Grate - using the zesting part of a grater, e.g. lemon, orange - use a nutmeg grater Thread higher resistance foods onto kebab sticks, e.g. peppers, onions Cut higher resistance food with a vegetable knife, using the claw grip, e.g. celery, carrots



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			to create visually appealing products e.g. mini cottage loaf or plait, wrap	using the claw grip, e.g. celery, carrots higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato		higher resistant foods from whole using the bridge hold, e.g. halve an apple, raw potato
Related National Curriculum Objectives in italics:	<i>- use the basic principles of a healthy and varied diet to prepare dishes</i> <i>-understand where food comes from.</i>		<i>- understand and apply the principles of a healthy and varied diet</i> <i>-prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques</i> <i>- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</i>			
Textiles						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none">●Children know about similarities and differences in relation to objects and materials.●Experiments to create different textures.●Manipulates materials to achieve a planned effect.●Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	<ul style="list-style-type: none">●Colour fabrics using a range of techniques●e.g. fabric paints, printing, painting●Cut out shapes which have been created by drawing round a template●onto the Fabric	<ul style="list-style-type: none">●Join fabrics by using glue, staples or tape●Decorate fabrics with buttons, beads, sequins, braids, ribbons	<ul style="list-style-type: none">●	<ul style="list-style-type: none">●Join fabrics using running stitch, over sewing, back stitch●Explore fastenings and recreate some e.g. sew on buttons and make loops●Use appropriate decoration techniques e.g. appliqué (glued or simple stitches)●Create a simple pattern●Understand the need for patterns	<ul style="list-style-type: none">●Create 3D products using pattern pieces and seam allowance●Understand pattern layout●Decorate textiles appropriately often before joining components	<ul style="list-style-type: none">●Create 3D products using pattern pieces and seam allowance●Understand pattern layout●Decorate textiles appropriately often before joining●Components -Pin and tack fabric pieces together●Join fabrics using over sewing, back stitch or blanket stitch●Combine fabrics to create more useful properties●Make quality products



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Related National Curriculum Objectives in italics:	<i>Make -select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] - select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i>		<i>Make - select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately -select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</i>			
Construction						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none">- Uses simple tools to effect changes to materials.- Handles tools, construction and malleable materials safely and with increasing control.	<ul style="list-style-type: none">- Make vehicles with construction kits which contain free running wheels- Use a range of materials to create models with wheels and axles e.g. tubes, dowel, cotton reels- Attach wheels to a chassis using an axle	<ul style="list-style-type: none">- Join appropriately for different materials and situations e.g. glue, tape,- Mark out materials to be cut using a template- With an adult use a glue gun.	<ul style="list-style-type: none">- Make structures more stable by giving them a wide base- Prototype frame structures- Measure and mark square selection, strip and dowel accordingly to 1cm- Use glue gun with close supervision (one to one)	<ul style="list-style-type: none">- Incorporate a circuit with a bulb or buzzer into a model- Create shell or frame structures, strengthen frames with diagonal struts	<ul style="list-style-type: none">- Use bradawl to mark hole positions- Cut strip wood, dowel, square section- wood accurately to 1mm- Join materials using appropriate methods- Incorporate motor and a switch into a model- Control a model using a simple control programme	<ul style="list-style-type: none">- Control a model using an ICT control programme- Build frameworks using a range of materials e.g. wood, card corrugated plastic to support mechanisms- Use glue gun with close supervision- Use a basic CAM mechanism to design a moving toy.
Related National Curriculum Objectives in italics:	Make -select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] -select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Technical knowledge - build structures, exploring how they can be made stronger, stiffer and more stable		Make -select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately - select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Technical knowledge -apply their understanding of how to strengthen, stiffen and reinforce more complex structures -understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] - understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]			



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	<i>-explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i>		<i>apply their understanding of computing to program, monitor and control their products.</i>			
Sheet Materials						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none">- Uses simple tools to effect changes to materials.- Handles tools, construction and malleable materials safely and with increasing control.	<ul style="list-style-type: none">- Fold, tear and cut paper and card- Roll paper to create tubes- Cut along lines, straight and curved- Curl paper- Use hole punch	<ul style="list-style-type: none">- Insert paper fasteners for card linkages- Use lolly sticks/card to make levers and linkages- Create hinges- Investigate strengthening sheet materials- Investigate joinings temporary, fixed and moving	<ul style="list-style-type: none">- Cut slots- Cut internal shapes	<ul style="list-style-type: none">- Use linkages to make movement larger or more varied.- Use and explore complex pop ups	<ul style="list-style-type: none">- Cut slots- Cut accurately and safely to a marked line- Join and combing materials with temporary, fixed or moving joints.	<ul style="list-style-type: none">- Use craft knife, cutting mat and safety ruler under one to one supervision if appropriate- Choose an appropriate sheet material for the purpose- Create nets
Related National Curriculum Objectives in italics:	<i>Make -select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]</i> <i>- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</i> <i>Technical knowledge - build structures, exploring how they can be made stronger, stiffer and more stable</i> <i>-explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</i>		<i>Make -select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately</i> <i>-select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</i> <i>Technical knowledge -apply their understanding of how to strengthen, stiffen and reinforce more complex structures -understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</i>			
Evaluating						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



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<ul style="list-style-type: none"> - achieving what they set out to achieve. - Show satisfaction in meeting their own goals. - Being proud of how they accomplished something – not just the end results. - Enjoy meeting challenges for their own sake rather than external rewards or praise. 	<ul style="list-style-type: none"> - Say what they like and do not like about items they have made and attempt to say why - Talk about changes made during the making process - Discuss how closely their finished products meet their design criteria 	<ul style="list-style-type: none"> - Explore what existing products are/what for/how they are used/materials used/likes and dislikes about a product - Talk about their designs as they develop and identify good and bad points 	<ul style="list-style-type: none"> - Identify the strengths and weaknesses of their design ideas - Decide which design idea to develop - Consider and explain how the finished product could be improved 	<ul style="list-style-type: none"> - Discuss how well the finished product meets the design criteria and how well it meets the needs of the user. 	<ul style="list-style-type: none"> - Use the design criteria to inform their decisions about ways to proceed - Justify their decisions about materials and methods of construction - Make suggestions as how their design could be improved 	<ul style="list-style-type: none"> - Identify what does and does not work in the product and suggest improvements. - Reflect on their work using design criteria stating how well the design fits the needs of the user
Related National Curriculum Objectives in italics:	Evaluate - explore and evaluate a range of existing products -evaluate their ideas and products against design criteria		Evaluate -investigate and analyse a range of existing products -evaluate their ideas and products against their own design criteria and consider the views of others to improve their work - understand how key events and individuals in design and technology have helped shape the world			