

Grayrigg CE Primary School Design Technology Planning

Please note these are the projects, the skills must be taken from the skills progression grid below. Each project needs to involve, research, skills rehearsal, design, make and evaluate.

		Autumn	Spring	Summer
Acorns	Ongoing	Children will design, make and evaluate at least two different products in the woodwork, food and textiles areas, in both Year 1 and Year 2. Children will also explore, design and construct structures using the loose parts in both the indoor and outdoor areas. Teachers ensure that children build on the skills gained previously, with appropriate challenges provided where required.		
Oaks	Year A Year B	<p>Y3 Fish Cakes and unfish cakes (based on the tuna and broccoli fish cake recipe) Linked to Fairtrade and do they want to choose a more sustainable fish or do unfish cakes.</p> <p>Y4 Pasta bake for winter kitchen. Choose tomato or cheese base. Make one whole big one for the WK. From then on they can make their own individual one with more choice</p>	<p>Year 3 make a cushion- skills practise- backing stitch. Use a pattern, cutting your own material, sewing inside out, stuff with recycled materials.</p> <p>Year 4 hand sewn drawstring bag using recycled clothes from home (t-shirts, skirts, jeans)</p>	<p>Y3- men in sheds (pre measured and cut by men in sheds)</p> <p>Y4- create a vehicle of their own choice (focus on accuracy of measurement). Has to have wheels. Sawing, screwing or nailing. Understanding how and where the fixing is going to be to make the vehicle most efficient e.g. screws better for wheels to allow for tightening and loosening. Prototype car - https://www.youtube.com/watch?v=W9iaB42QDU - Elastic band car everyone makes one and then they can make their own version. Measurement - they need to have chassis the same size using flat dowles. How are they going to attach the wheels, glue them on, use screws, nuts and washers? What wheels</p>
Mighty Oaks	Year A Year B	<p>Classic Meal with a twist Provide for the winter Kitchen's Y5</p> <p>Grayrigg Pop up Cafe Y6 to create income for the Winter kitchen</p>	<p>Fashion- clothing upcycle project 5-6 weeks - Sewing machines are the progression</p> <p>Woodwork upcycling project 5-6 weeks</p>	

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Skill	Acorns	Oaks	Mighty Oaks
<p>Design, Make, Evaluate, Improve</p>	<p>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. Begin to use software to represent 2D designs.</p>	<p>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. · Develop 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 needs of the user</p>	<p>Undertake research to inform the design process. This may include surveys and interviews. Use prototypes, cross-sectional diagrams, exploded diagrams 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.</p>
<p>WOODWORK /CARD</p>	<p>Mark out materials to be cut using a template. Cut strip wood/dowel/balsa using a hacksaw ·Use materials to practise drilling, screwing, nailing and glueing to strengthen products</p> <p>Finish work using Sanding blocks, Paint/felt tip</p> <p>Mechanics: Use a range of materials to create models with wheels and axles e.g. tubes, dowel and cotton reels.</p>	<p>New to KS2 (Y3) create rectangular frames (measure and cut accurately) Explore different gradients of sandpaper to ensure smooth finish and paint Year 4 visits to men in sheds workshop Investigate how to make structures more stable e.g. by widening the base. Explore tightening and loosening screws. Use power tools with adult support (men in sheds)</p>	<p>Upcycle unwanted furniture as part of recycling and reusing work towards a better world. Independently use power tools- sander and drill Use techniques learnt to upcycle, improve and change damaged furniture by: cutting and fitting new parts sanding down and finishing fixing damaged structural element</p> <p>Finishing with appropriate indoor/outdoor paint of varnish. Adding decorative touches e.g. decoupage</p>
<p>Textiles</p>	<p>Sewing- running stitch, buttons and poppers, sewing two things together with running stitch</p>	<p>Sewing- backstitch, creating a pattern cutting from a pattern sewing inside out threading own needle stuffing</p> <p>refining above skills in second year</p>	<p>Upcycle unwanted or damaged clothing as part of recycling and reusing work towards a better world. design and plan alterations needed making adjustments adding details using skills such as applique, gathering. creating a channel to add elastic or a pull cord shortening using a hem Using a sewing machine</p>
<p>Food</p>	<p>Group foods into the five groups in The EatWell Plate. Cut, grate or peel ingredients safely. Prepare simple dishes-safely and hygienically-without using a heat source.</p>	<p>Cut foods 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.</p>	<p>Assemble or cook ingredients, controlling the temperature of the oven or hob if cooking. · Measure accurately using different equipment. · Understand the importance of correct storage and handling of ingredients.</p>

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	<p>Measure or weigh using cups or electronic scales.</p>	<p>Measure and weigh ingredients appropriately. · Follow a recipe. Create own recipe based on a known recipe Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs). Measure ingredients using scales. Prepare ingredients hygienically and use the appropriate utensils by following a recipe.</p>	<p>Combine ingredients appropriately e.g. beating or rubbing. 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.</p>
<p>Areas of DT taught in other areas of curriculum</p>	<p>Children will use the loose parts in the classroom and outside area to explore structure. They will design, create and evaluate their own constructions and explore how they can be made stronger, stiffer and more stable.</p>	<p>Taught through forest and science curriculum: understand and use mechanical systems in their products [for example, gears, pulleys, levers and linkages] Taught through science curriculum: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors (this may be added to a product)] Taught through computing curriculum with wedo and spiro: apply their understanding of computing to program, monitor and control their products..</p>	