



## Dallam Community Primary School – Subject Progression – Design Technology

		Design Technology Progression						
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Design</b>	<p>CREATING WITH MATERIALS</p> <p><b>Seedlings</b></p> <ul style="list-style-type: none"> <li>Explore materials using their hands.</li> <li>Use a variety of senses to explore different materials.</li> <li>Express ideas through making marks and sometimes give meaning to marks made.</li> </ul> <p><b>Acorns</b></p> <ul style="list-style-type: none"> <li>Develop their own ideas and then decide which materials to use to express them.</li> <li>Explore different materials freely to develop ideas about how to use them and what to make.</li> <li>Join different materials and explore different textures.</li> </ul>		<ul style="list-style-type: none"> <li>To know the importance of a clear design criteria.</li> <li>To create a simple design for a given audience</li> <li>To create clearly labelled drawings that illustrate movement</li> <li>Use a template to create a design</li> </ul>	<ul style="list-style-type: none"> <li>To generate and communicate ideas using sketching and modelling.</li> <li>To create a design for a specific audience in accordance with the design criteria.</li> <li>To create a basic design independently</li> </ul>	<ul style="list-style-type: none"> <li>To create a design with key features to appear to a specific person/ purpose</li> <li>To create a design on CAD software</li> <li>Generate ideas based on research</li> <li>To design and make a template for textile use</li> </ul>	<ul style="list-style-type: none"> <li>To select materials to create a desired effect</li> <li>Create a design using a given budget</li> <li>Create a design criteria for a product, articulating decisions made</li> <li>To create a prototype</li> <li>To use computer aided design to manipulate shapes and clipart</li> </ul>	<ul style="list-style-type: none"> <li>To place and manoeuvre 3D objects using CAD</li> <li>Be able to create a design, considering the main components required and creating an appropriate template.</li> <li>Create a design using both structures and mechanisms</li> <li>Be able to investigate existing products and create a design criteria from own findings</li> </ul>	<ul style="list-style-type: none"> <li>Use CAD efficiently to create a design</li> <li>Annotate designs to explain decisions made.</li> <li>Be able to talk about designs which are effective and ineffective and give justification for this</li> <li>Create a cross-sectional diagram to support a design</li> </ul>
	<b>Make</b>	<p><b>Ash</b></p> <ul style="list-style-type: none"> <li>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</li> <li>Share their creations, explaining the process they have used.</li> <li>Create collaboratively, sharing ideas, resources and skills.</li> <li>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</li> </ul>	<ul style="list-style-type: none"> <li>To make a stable structure from glue, tape and card.</li> <li>To use a 2D net to create a 3D structure.</li> <li>To follow basic instructions to make a structure</li> <li>To adapt a mechanism when it does not work as it should</li> <li>To cut fabric neatly with scissors</li> </ul>	<ul style="list-style-type: none"> <li>To create joints and structures from paper/ card and tape.</li> <li>To cut and assemble components neatly.</li> <li>To decorate fabric using a fabric gun or running stitch</li> <li>To use a needle to thread</li> <li>To create a running stitch which is evenly spaced, neat and have even stitches.</li> </ul>	<ul style="list-style-type: none"> <li>To know how syringes and balloons work in a pneumatic system</li> <li>To be able to manipulate materials to create different effects by cutting, creasing, folding and weaving.</li> <li>Be able to mark and measure out materials using a template or ruler.</li> <li>To be able to use a cross stitch pattern to join fabric</li> <li>To use appropriate tools and equipment for cutting, joining, shaping and decorating</li> </ul>	<ul style="list-style-type: none"> <li>To understand how to reinforce corners to strengthen a structure</li> <li>Use a paper template to measure, mark and cut fabric</li> <li>Select own stitch style to join fabric and be able to justify choice</li> <li>Sew small, straight stitches neatly</li> <li>Measure, mark, cut and assemble with increasing accuracy</li> <li>Create a working electrical circuit</li> </ul>	<ul style="list-style-type: none"> <li>Measure, mark and cut fabric accurately and independently</li> <li>Sew a strong and secure blanket stitch when joining fabric</li> <li>Thread a needle independently</li> <li>Independently mark and measure wood</li> <li>Select appropriate tools and equipment for a task</li> <li>Be able to use a saw correctly using safe techniques</li> <li>Create mechanisms using sliders, pivots and folds to produce movement</li> <li>Make a functional series circuit, incorporating a motor</li> </ul>	<ul style="list-style-type: none"> <li>Use pins effectively to secure a template</li> <li>Sew a strong running stitch with small neat stitches.</li> <li>To measure, mark and cut wood independently</li> <li>Use a range of materials to reinforce and add decoration</li> <li>Measure, mark and check the accuracy of resources correctly</li> <li>Use a ruler to measure and mark accurately</li> <li>Understand and use a bench hook and saw safely</li> <li>Create a stable base</li> <li>Incorporate a circuit into a base</li> </ul>
		<b>Evaluate</b>	<p>BEING IMAGINATIVE AND EXPRESSIVE</p> <p><b>Acorns</b></p> <ul style="list-style-type: none"> <li>Explore a range of construction materials and</li> </ul>	<ul style="list-style-type: none"> <li>To evaluate against a design criteria and make alterations.</li> <li>To suggest points for improvement</li> <li>Can test a simple mechanism and explain why it works/ doesn't.</li> </ul>	<ul style="list-style-type: none"> <li>To test the strength of own structures.</li> <li>To evaluate the quality of others work</li> <li>To be able to discuss the success of their stitching against a success criteria</li> <li>To identify aspects of their peers work that they like and explain why</li> </ul>	<ul style="list-style-type: none"> <li>To evaluate others work based on aesthetic of the finished product in comparison to the original design</li> <li>To suggest things that could be changed on others designs</li> <li>To justify opinions when comparing ideas to success criteria</li> <li>To check design against brief and success criteria</li> <li>Analyse and evaluate an existing product</li> </ul>	<ul style="list-style-type: none"> <li>To explain why a design is effective and ineffective.</li> <li>To test and evaluate an end product against original design criteria</li> <li>Investigate previous products and compare advantages and disadvantages</li> <li>Evaluate product against design criteria and make amendments</li> </ul>	<ul style="list-style-type: none"> <li>Test and evaluate an end product</li> <li>Adapt and improve own product by identifying points of weakness</li> <li>Evaluate the work of others and accept feedback on own work</li> <li>Carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses</li> </ul>



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<b>Technical Knowledge</b>	<p>begin to talk about what they have built.</p> <ul style="list-style-type: none"> <li>To understand that shape can be changed to improve strength and stiffness of structures.</li> <li>To understand that axles are used in structures and mechanisms used to make parts move.</li> <li>To know that wheels need to be round to rotate and move.</li> <li>To know that the frame of a vehicle (chassis) needs to be balanced.</li> <li>To know that joining technique means connecting two pieces of material together.</li> <li>To know that there are various temporary methods of joining fabric by using staples, glue or pins.</li> </ul>	<ul style="list-style-type: none"> <li>To know that a structure with wide, flat bases or legs are the most stable.</li> <li>To understand that the shape of a structure affects the strength.</li> <li>To explain that a stable structure is one which is firmly fixed and unlikely to move.</li> <li>To understand that materials have different properties and uses.</li> <li>To explain how different mechanisms work using technical language including linkage, levers and pivot.</li> <li>To know that sewing is a method of joining fabric</li> <li>To understand the importance of tying a knot after sewing the final stitch.</li> </ul>	<ul style="list-style-type: none"> <li>To explain why wide and flat based objects are more stable</li> <li>To explain how pneumatic systems work</li> <li>To be able to identify and name the bulb, battery, battery holder and crocodile wire.</li> <li>To know that when two edges of fabric have been joined together it is called a seam</li> </ul>	<ul style="list-style-type: none"> <li>Apply their understanding of how to strengthen, stiffen and reinforce more complex structures</li> <li>Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]</li> <li>Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]</li> </ul>	<ul style="list-style-type: none"> <li>To know that a device means equipment created for a certain purpose or job.</li> <li>To understand the difference between arch, beam, truss and suspension bridges.</li> <li>To understand that mechanisms can be used to change one kind of motion into another</li> </ul>	<ul style="list-style-type: none"> <li>To know that structures can be strengthened by manipulating material shapes</li> <li>To create a footprint plan and understand what these are used for</li> </ul>
<b>Cooking and Nutrition</b>	<ul style="list-style-type: none"> <li>To chop fruit and vegetables safely</li> <li>Identify if a food is a fruit or vegetable</li> <li>To understand where and how fruit and vegetables grow.</li> <li>Describe appearance, smell and taste.</li> </ul>	<ul style="list-style-type: none"> <li>To design a combination of ingredients that work well together</li> <li>To test food combinations and final products</li> <li>To know where to find the nutritional information on food packaging</li> <li>To know that ingredients means the items in a mixture of recipe.</li> </ul>	<ul style="list-style-type: none"> <li>To independently prepare a work station for cooking knowing the basic rules to avoid food contamination</li> <li>To describe the benefits of seasonal fruit and vegetables and the impact on the environment</li> <li>To know the difference between imported food and exported food</li> <li>To explain the safety rule for using, storing and cleaning a knife safely</li> </ul>	<ul style="list-style-type: none"> <li>Follow a recipe from start to finish</li> <li>Prepare ingredients independently</li> <li>Follow basic hygiene and health and safety rules while cooking</li> <li>Adapt a recipe to improve or change to meet new criteria</li> </ul>	<ul style="list-style-type: none"> <li>Adapt a traditional recipe</li> <li>Understand that nutritional value changes when things are added or removed</li> <li>Identify the nutritional difference between different products</li> </ul>	<ul style="list-style-type: none"> <li>Write a recipe which can be followed by another person</li> <li>Follow a recipe independently</li> <li>Suggest improvements for their own and others recipes</li> <li>Be able to define 'processed' and 'non processed' and talk about the difference</li> <li>To follow food hygiene rules independently.</li> </ul>