

# Key End Points - for end of year



# Subject: Design Technology

## Ready to Progress Criteria...

	Knowledge	Skills
<b>EYFS</b>	<ul style="list-style-type: none"> <li>• They know there are a range of different materials that can be used to make a model and that they are all slightly different.</li> <li>• They know that 'waterproof' materials are those which do not absorb water.</li> <li>• They know that a design is a way of planning our idea before we start.</li> <li>• They know that threading is putting one material through an object.</li> </ul>	<ul style="list-style-type: none"> <li>• They can join different materials together</li> <li>• They can describe their junk model and how they intend to put it together</li> <li>• They can make a boat that floats and is waterproof</li> <li>• Use a prepared needle and wool to practice threading.</li> <li>• Discuss what a good design needs.</li> </ul>
<b>Year 1</b>	<ul style="list-style-type: none"> <li>• They know that the shape of materials can be changed to improve the strength and stiffness of structures.</li> <li>• They understand the difference between fruits and vegetables.</li> <li>• They know that design criteria is a list of points to ensure the product meets the clients needs and wants.</li> <li>• They begin to understand that different structures are used for different purposes</li> </ul>	<ul style="list-style-type: none"> <li>• They can make stable structures from card, tape and glue.</li> <li>• They can chop fruit and vegetables safely to make a smoothie.</li> <li>• They can taste and evaluate different food combinations.</li> <li>• They can use joining methods to decorate a puppet.</li> <li>• They can cut fabric neatly with scissors.</li> <li>• They can suggest points for improvements.</li> </ul>
<b>Year 2</b>	<ul style="list-style-type: none"> <li>• They know that shapes and structures with wide, flat bases or legs are the most stable.</li> <li>• They know that natural structures are those found in nature and that man-made structures are those made by people.</li> <li>• They know that mechanisms are a collection of moving parts that work together as a machine to produce movement.</li> <li>• They know some real-life objects that contain mechanisms.</li> </ul>	<ul style="list-style-type: none"> <li>• They can create joints and structures from paper/card and tape.</li> <li>• They can selecting materials according to their characteristics</li> <li>• They can experiment with linkages by adjusting g the widths, lengths and thicknesses of card used.</li> <li>• They can follow a design brief.</li> <li>• They can evaluate the strength, stiffness and stability of own structure.</li> </ul>
<b>Year 3</b>	<ul style="list-style-type: none"> <li>• They understand the importance of strength and stiffness in structures.</li> <li>• They know that vegetables and fruit grow in certain seasons.</li> <li>• They know that each fruit and vegetable gives us nutritional benefits because they contain vitamins, minerals and fibre.</li> <li>• They know that in Design Technology the term 'smart' means a programmed product</li> <li>• They know that a design specification is a list of success criteria for a product.</li> </ul>	<ul style="list-style-type: none"> <li>• They can draw and label a design using 2D shapes, labelling the 3D shapes that will create the features, materials needed, and colours.</li> <li>• They can creating a healthy and nutritious recipe for a savoury tart using seasonal ingredients, considering the taste, texture, smell and appearance of the dish</li> <li>• They can writing a program to control (button press) and/or monitor (sense light) that will initiate a flashing LED algorithm</li> </ul>
<b>Year 4</b>	<ul style="list-style-type: none"> <li>• They know that a 'free-standing' structure is one that can stand on its own.</li> <li>• They understand that the target audience means the person or group of people a product is designed for.</li> <li>• They know that aesthetics means how an object or product looks in design and technology.</li> <li>• They know that it is important to assess and evaluate design ideas and models against a list of design criteria.</li> </ul>	<ul style="list-style-type: none"> <li>• They can design a stable pavilion structure that is aesthetically pleasing and select materials to create a desired effect.</li> <li>• They can measure, mark, cut and assemble with increasing accuracy.</li> <li>• They can assemble a torch according to the design and success criteria.</li> <li>• They can considering effective and ineffective designs and describe what characteristics of a design and construction made it the most effective.</li> </ul>
<b>Year 5</b>	<ul style="list-style-type: none"> <li>• They understand that mechanisms can be used to change one kind of motion into another.</li> <li>• They know a motorised product is one that uses a motor to function.</li> <li>• They know that a design brief is a description of what I am going to design and make</li> <li>• They know that designers often want to hide mechanisms to make a product more aesthetically pleasing.</li> <li>• They understand that 'cross-contamination' means bacteria and germs have been passed onto ready-to-eat foods and it happens when these foods mix with raw meat or unclean objects.</li> </ul>	<ul style="list-style-type: none"> <li>• They can make mechanisms and/or structures using sliders, pivots and folds to produce movement.</li> <li>• They can alter a product's form and function by tinkering with its configuration.</li> <li>• They can use equipment safely, including knives, hot pans and hobs.</li> <li>• They can adapt a recipe to make it healthier by substituting ingredients.</li> <li>• They can carry out a product analysis to look at the purpose of a product along with its strengths and weaknesses.</li> </ul>
<b>Year 6</b>	<ul style="list-style-type: none"> <li>• They know that structures can be strengthened by manipulating materials and shapes.</li> <li>• They understand that in the real world, design , can impact users in positive and negative ways.</li> <li>• They know that a prototype is a cheap model to test a design idea.</li> <li>• They understand that it is important to design clothing with the client/ target customer in mind.</li> </ul>	<ul style="list-style-type: none"> <li>• They can build a range of play apparatus structures drawing upon new and prior knowledge of structures.</li> <li>• They can measure, mark and cut wood and fabric to create different products.</li> <li>• They can develop a product idea through annotated sketches</li> <li>• They can place and maneuver 3D objects, using CAD</li> <li>• They can reflect on their work continually throughout the design, make and evaluate process.</li> </ul>