



## Summerfield Primary School - Design Technology

### Technical Knowledge - Making Products Work Progression across KS1 and KS2

<b>Across KS1 pupils should know</b>	about the simple working characteristics of materials and components
	about the movement of simple mechanisms such as levers, sliders, wheels and axles
	how freestanding structures can be made stronger, stiffer and more stable
	that a 3-D textiles product can be assembled from two identical fabric shapes
	that food ingredients should be combined according to their sensory characteristics
	the correct technical vocabulary for the projects they are undertaking
<b>Across KS2 pupils should know</b>	how to use learning from science to help design and make products that work
	how to use learning from mathematics to help design and make products that work
	that materials have both functional properties and aesthetic qualities
	that materials can be combined and mixed to create more useful characteristics
	that mechanical and electrical systems have an input, process and output
	the correct technical vocabulary for the projects they are undertaking
<b>In LKS2</b>	how mechanical systems such as levers and linkages or pneumatic systems create movement
	how simple electrical circuits and components can be used to create functional products
	how to program a computer to control their products
	how to make strong, stiff shell structures
	that a single fabric shape can be used to make a 3D textiles product
	that food ingredients can be fresh, pre-cooked and processed

<b>In UKS2</b>	how mechanical systems such as cams or pulleys or gears create movement
	how more complex electrical circuits and components can be used to create functional products
	how to program a computer to monitor changes in the environment and control their products
	how to reinforce and strengthen a 3D framework
	that a 3D textiles product can be made from a combination of fabric shapes
	that a recipe can be adapted by adding or substituting one or more ingredients