










To enable children to make sense of the 'made world' in which they live through applying their substantive and disciplinary knowledge to design solutions to solve problems, preparing them for work in design industries.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Art Focus	<b>Exploded diagrams</b> Great examples can be downloaded from the Lego website.	Art Focus	<b>Mechanisms</b> Moving pictures Using levers, linkages (Twinkl)	Art Focus	<b>Skyline with lights.</b> Battery operated lights (Twinkl)
				    		
		Design Brief: To create an exploded diagram to help a younger child build a Lego toy.		Design Brief: To design a moving picture aimed at Key Stage one children to teach them about recycling with a specific design specification.  Design Specification <ul style="list-style-type: none"> <li>• Must be safe and appropriate for KS1 children</li> <li>• Made from card and split pins</li> </ul>		Design Brief: To design and make a battery operated light.  Design Specification: <ul style="list-style-type: none"> <li>• Must be controlled by a homemade switch.</li> </ul>



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	Objectives:		<ul style="list-style-type: none"> <li>To read existing exploded diagrams</li> <li>To understand and label an existing exploded diagram.</li> <li>To create their own exploded diagram from a dis-assembled product</li> </ul> <p>*See Appendices for support with resources to use for existing exploded diagrams etc.</p>		<ul style="list-style-type: none"> <li>Generate ideas for an item considering its purpose and the user/s.</li> <li>Identify a purpose and establish criteria for a successful product.</li> <li>Plan the order of their work before starting.</li> <li>Explore, develop and communicate design proposals by modelling ideas.</li> <li>Make drawings with labels when designing.</li> <li>Select tools and techniques for making their product.</li> <li>Use simple levers and linkages in their design</li> <li>Key Vocabulary to be used: <ul style="list-style-type: none"> <li>-Loose pivot and a fixed pivot</li> <li>Split pins, lever, components and linkage. <ul style="list-style-type: none"> <li>Measure, cut, score and assemble components with more accuracy.</li> <li>Work safely and accurately with a range of simple tools.</li> </ul> </li> <li>- Split pins and scissors. <ul style="list-style-type: none"> <li>Think about their ideas as they make progress and be willing to change things if this helps them improve their work.</li> </ul> </li> <li>Use finishing techniques to improve the appearance of their product.</li> <li>Evaluate their product against original design criteria e.g. how well it meets its intended purpose</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>Name some key events and individuals that have helped shape the world of lighting.</li> <li>Explore and make a series circuit</li> <li>Follow instructions to make a switch.</li> <li>Draw a design which uses annotations to add some detail</li> <li>Write their own simple design criteria.</li> <li>Make a product which contains a working circuit to light a bulb.</li> <li>Use a series of given questions to evaluate their product.</li> </ul>
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	Key Vocabulary		<ul style="list-style-type: none"> <li>• Diagram</li> <li>• Exploded diagram</li> <li>• Components</li> <li>• Assemble</li> <li>• Disassemble</li> <li>• Construction</li> <li>• Labelling</li> <li>• Annotations</li> <li>• Together</li> <li>• Joined</li> <li>• Apart</li> <li>•</li> </ul>		<ul style="list-style-type: none"> <li>• levers</li> <li>• linkages</li> <li>• Loose pivot</li> <li>• fixed pivot</li> <li>• Split pins</li> <li>• Score</li> <li>• Assemble</li> <li>• components</li> <li>• Design Specification</li> <li>• Design Brief</li> <li>• Final design</li> <li>• Fit for purpose</li> </ul>		<ul style="list-style-type: none"> <li>• Circuit</li> <li>• Switch</li> <li>• Wire</li> <li>• Complete circuit</li> <li>• Battery</li> <li>• Lightbulb</li> <li>• Series circuit</li> <li>• Parallel circuit</li> <li>• Aesthetic qualities</li> <li>• Functional qualities</li> <li>• Skyline</li> <li>• City</li> <li>• Horizon</li> <li>• Skyline</li> <li>• Buildings</li> <li>• Size</li> <li>• Outline</li> <li>• Structure</li> <li>• Height/width/depth</li> </ul>
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\*\*\* The **topics** within Year 3 and 4 are covered only once within the two year cycle.