




		Year:	8	Subject:	Design & Technology	Rotation 1 – Bluetooth Speaker		
<b>Intent</b>	<b>Subject Concepts (Substantive knowledge)</b>		<ul style="list-style-type: none"> <li>Core technical principles</li> </ul>	New and emerging technologies Materials & their working properties	Prior knowledge: <ul style="list-style-type: none"> <li>Personal experience of Bluetooth devices and how they work</li> <li>Awareness of how products have evolved and some of the reasons why</li> </ul>			
				<ul style="list-style-type: none"> <li>Specific technical processes</li> </ul>	Sources and origins Ecological and social footprint Using and working with materials Specialist techniques and processes Surface treatments and finishes	Prior knowledge: <ul style="list-style-type: none"> <li>An awareness of how metals are sourced.</li> <li>Sound understanding of common properties of the main material groups</li> <li>The use of production aids in manufacturing</li> </ul>		
				<ul style="list-style-type: none"> <li>Designing and making principles</li> </ul>	The work of others Design Strategies Communication of design ideas Prototype development Tolerances Material management Specialist tools and equipment Specialist techniques and processes	Prior knowledge: <ul style="list-style-type: none"> <li>The importance of investigating analysing and evaluating the work of past and present designers and companies to inform their own designing</li> </ul>		
	<b>Disciplinary Knowledge</b>			<ul style="list-style-type: none"> <li>How to work safely in the workshop</li> <li>How to solder accurately</li> <li>How to use 2D design to create and manipulate shapes</li> <li>How to describe each of the Six R's</li> </ul>				
<b>Implementation</b>	<b>Common Misconceptions</b>			<ul style="list-style-type: none"> <li>Solder is the same as wire</li> <li>All metal products can be recycled</li> </ul>				
	<b>Enabling or Adapting the Curriculum</b>	<b>SEND Students</b>		<ul style="list-style-type: none"> <li>One to one demonstrations</li> <li>Sequential diagrams of processes to support verbal explanations</li> <li>Paired soldering for peer support</li> <li>Checking of circuit boards ahead of soldering</li> </ul>				
		<b>Disadvantaged Students</b>		<ul style="list-style-type: none"> <li>Looking at career opportunities involved in the making of metal tin cans – sourcing/extraction, transport, manufacturing, graphics, branding, retailers</li> </ul>				
		<b>More Able Students</b>		<ul style="list-style-type: none"> <li>Allocate 'expert' role</li> </ul>				
<b>Literacy/Numeracy Skills</b>		<b>LITERACY</b>	<b>Vocab:</b> Key vocab on starter slide each lesson Pixl unlock starter task	<ul style="list-style-type: none"> <li>Bluetooth, Energy source, Printing methods, Manufacture, design, develop, construct, prototype, quality control, planning, steel, cylindrical, solder, joining, metal, Reuse, Recycle, Refuse, Repair, Rethink, Reduce, Carbon footprint</li> </ul>				
			<b>Reading:</b>	<ul style="list-style-type: none"> <li>Week 5 – DT PCAS Reading task</li> </ul>				
			<b>Writing:</b>	<ul style="list-style-type: none"> <li>Creating step by step instructions of how the 3D printer works</li> </ul>				
			<b>Oracy:</b>	<ul style="list-style-type: none"> <li>Group presentation on one of the Six R's.</li> </ul>				

		NUMERACY	<ul style="list-style-type: none"> <li>• Measurement of designs</li> </ul>
	<b>Digital Strategy</b> 		<ul style="list-style-type: none"> <li>• Use of photoshop for creating graphics</li> </ul>
	<b>Home Learning</b>		<ul style="list-style-type: none"> <li>• Product analysis of existing Bluetooth speakers using ACCESS FM</li> <li>• Reading task</li> </ul>
<b>Impact</b>	<b>Composite Assessment</b>		Content
			Product analysis  End of term written composite assessment (knowledge check)