	Year:	8	Sub	ject:	Design & Technology		Rotation 1 – Bluetooth Speaker
Intent	Subject Concepts (Subsknowledge)	Core technical principles			New and emerging technologies  Materials & their working properties	Prior knowledge:  Personal experience of Bluetooth devices and how they work  Awareness of how products have evolved and some of the reasons why  Takeaway Learning:  An understanding of how job roles have changed due to the technological advancements.  Consider how the needs of those of different faiths and beliefs may impact on design  Reflection on the positive and negative impacts new products have on the environment	
		Specific technical processes			Sources and origins  Ecological and social footprint  Using and working with materials  Specialist techniques and processes  Surface treatments and finishes	Prior knowledge:  An awareness of how metals are sourced.  Sound understanding of common properties of the main material groups  The use of production aids in manufacturing  Takeaway Learning:  Evaluate how consumers and manufacturers can reduce their carbon footprint by addressing the Six R;s  Exploring how the properties of materials can be modified for specific purposes  Exploring how to shape and form materials using cutting, abrasion and addition  Use a range of tools, equipment and processes that can be used to shape, fabricate, construct and assemble high quality prototypes: Wastage  Use a range of tools, equipment and processes that can be used to shape, fabricate, construct and assemble high quality prototypes: Addition  Explore how quality assurance is applied at all stages and the impact of this process.	
			Designing and making principles			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:  Takeaway Learning:  Generate imaginative and creative design ideas using a range of different design strategies  Explore and develop their own ideas for the casing graphics for the speaker.  Develop, communicate, record and justify design ideas using a range of appropriate techniques such as isometric and orthographic drawings  Design and develop prototypes in response to client wants and needs  Work accurately using tolerances.  Cut materials efficiently and minimise waste considering tessellation.  Use appropriate marking out methods, data points and coordinates to ensure accuracy.  To use specialist tools and equipment, including hand tools, machinery, digital design and manufacture, appropriate for the material and/or task to complete quality outcomes.
	Disciplinary Knowledge				<ul> <li>How to work safely in the</li> <li>How to solder accurately</li> <li>How to use 2D design to</li> <li>How to describe each of</li> </ul>	y o create and manipulate shapes	
	Common Misconceptions					<ul><li>Solder is the same as wir</li><li>All metal products can be</li></ul>	
Implementation	Enabling or Adapting the Curriculum		SEND Students			<ul> <li>One to one demonstrati</li> <li>Sequential diagrams of period of the period of the</li></ul>	processes to support verbal explanations r support
			Disadvantaged Students			retailers	tunities involved in the making of metal tin cans – sourcing/extraction, transport, manufacturing, graphics, branding,
			More Able Students			Allocate 'expert' role	
lmp	Literacy/Numeracy Ski	ills	LITERACY	Vocab: Key lesson Pixl unlock star Reading:	vocab on starter slide each ter task		ee, Printing methods, Manufacture, design, develop, construct, prototype, quality control, planning, steel, cylindrical, euse, Recycle, Refuse, Repair, Rethink, Reduce, Carbon footprint ing task
			T I	Writing:			structions of how the 3D printer works
				Oracy:		Group presentation on or	one of the Six K s.

	NUMERACY	Measurement of designs	
	Digital Strategy	Use of photoshop for creating graphics	
	Home Learning	<ul> <li>Product analysis of existing Bluetooth speakers using ACCESS FM</li> <li>Reading task</li> </ul>	
4	Composite Assessment	Content	
Impact		Product analysis	
<u> </u>		End of term written composite assessment (knowledge check)	