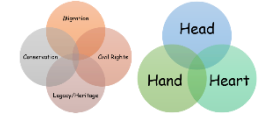




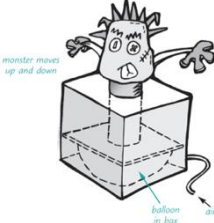
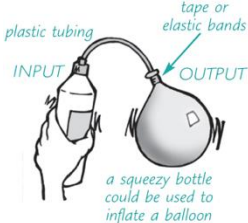








Year 3 – Autumn – DT – Pupil Knowledge Organiser



What do I already know?	What am I learning now?	
<ul style="list-style-type: none"> • Sliders, levels, wheels and axles are types of mechanism. • Wheels and axles can make it easier to move heavy things. • Friction is a force between two surfaces. • Friction works in the opposite direction to the one in which the object is moving. • Friction slows wheels and axles down as they rub against the floor or each other. 	<ol style="list-style-type: none"> 1. What familiar objects use air to work? 2. How can we make simple pneumatic systems? 3. How could pneumatics make parts of a toy move? 4. Can we design a moving toy with a pneumatic system? 5. Can we follow our design to make a prototype product? 6. How well does our product meet the design criteria? 	
Key Knowledge: Mechanisms	Key Knowledge: Design, Make, Evaluate	Key Vocabulary
 <p>Everyday objects that use air include inflatable toys, whistles, foot pumps, and party blowers.</p>  <p>Pneumatic systems use air pressure to create mechanical movement.</p>  <p>Air pressure can be adjusted to control the speed and force of movement.</p>  <p>Air can be controlled to create a force that makes objects move.</p>  <p>"Input" is the air pressure, and "output" is the final movement or action.</p>  <p>A pneumatic system must be airtight. If not, the system loses air pressure so it will not work.</p>	<p>In Design and Technology we follow a process:</p>  <p>design</p> <p>Develop a range of ideas based on who will use our product and what for.</p>  <p>make</p> <p>Safely assemble, join and combine materials.</p>  <p>evaluate</p> <p>Learn from existing products.</p> <p>Discuss what is good and what can be improved about our products, based on our design criteria.</p>	<p>pneumatic</p> <p>Something that works through the use of air/air pressure.</p> <p>mechanism</p> <p>The working or moving part or process that causes a result.</p> <p>components</p> <p>The individual parts of a whole/system.</p> <p>system</p> <p>A group of parts/components that work together as a whole.</p> <p>input</p> <p>The energy or signal provided to start or control a process.</p> <p>output</p> <p>The result or effect produced by the system in response to the input.</p> <p>air pressure</p> <p>How hard the air pushes against surfaces/within a system.</p> <p>airtight</p> <p>Completely sealed so that no air can get in or out.</p>