



KNOWLEDGE ORGANISER

CIRCUITS	SCIENCE	UKS2
Cross curricular links	Key skills	Key Vocabulary/definitions
<ul style="list-style-type: none"> DT – children learn the importance of the electrical components of different objects they design 	<ul style="list-style-type: none"> Children will learn how the electrical current is pushed round the circuit by the cell. They will experiment with the number and voltage of the cells used in a circuit and observe the results. They explore different conductors and insulators and learn about resistance. They will use this knowledge to explain variations in the brightness of lamps and the loudness of buzzers. They will also have the opportunity to record their findings using diagrams with the appropriate symbols and explain their ideas using scientific language. 	<p>Circuit - a complete circular path that electricity flows through. A simple circuit consists of a current source, conductors and a load.</p> <p>Component - electronic components are the parts used in devices that construct electronic circuits</p> <p>Voltage - describes the “pressure” that pushes electricity.</p> <p>Parallel - a parallel circuit is an electrical circuit in which the components are connected in parallel branches, so that the current can flow through each branch independently.</p>
Pictures/photos relevant to topic	Working Scientifically	
<p>Electrical components</p> <p>A circuit will always have a battery (cell) as well as other components. Components such as bulbs, buzzers, switches and motors, need a battery in order to work.</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;"> Battery </div> <div style="text-align: center;"> Wire </div> <div style="text-align: center;"> Bulb </div> <div style="text-align: center;"> Buzzer </div> <div style="text-align: center;"> Motor </div> <div style="text-align: center;"> Switch (off) </div> <div style="text-align: center;"> Switch (on) </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> </div>	<ul style="list-style-type: none"> Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs; 	
	Key facts	
	<p>Learning about electricity - https://www.bbc.co.uk/bitesize/topics/zj44jxs/articles/zsj9r2p#zfccmn</p> <p>Quiz to identify the correct electrical component symbols - https://www.bbc.co.uk/bitesize/topics/zj44jxs/articles/zqryn9q#zpbff82</p>	