Amblecote Primary School—Knowledge Organisers

Phase: 3/4 Subject: Design technology Focus: Electrical systems Term: Autumn



What I should already know?

- What we can use electricity for around the home and our life.
- Be able to construct a simple circuit using a cell, wire, output and switch.
- Measure, create and cut materials.

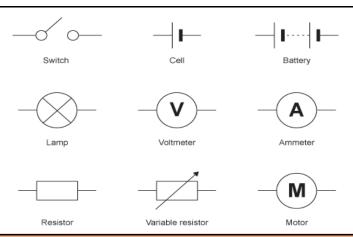
	<u>Vocabulary</u>
Cell	A single power source.
Switch	A connection that allows a circuit to be complete or incomplete, causing the output device to function.
Bulb	An output device which through heat, emits light.
Motor	An output device which uses an electrical current to turn a spindle.
Crocodile clip	A connection device that allows a circuit to be formed, it consists of wire and a clip on each end.
Fault	When an issue is detected within a circuit.
Battery	A multiple number of cells.
Battery holder	A device used to keep a multitude of batteries together for a circuit.
Conduc- tor	A material that allows an electrical current to travel through it.
Series circuit	A circuit which only has one chain—if a component breaks, the circuit will not work.
Parallel circuit	A circuit which only has more than one chain—if a component breaks, the circuit will still work as the current can travel through different paths.

Knowledge

Learn how to use prior knowledge and new learning alongside trial and error to design, test and produce circuits that work to a specified criteria.

Develop a greater understanding of the uses of electricity and how we can manipulate it to suit our needs.

Develop an understanding of faults and how to find and fix them within a circuit.



By the end of the unit I should know...

- That materials have both functional properties and aesthetic qualities that can be combined to create more useful characteristics.
- Understand how to use electrical systems to create functional systems.
- * Make design decisions and sketch them using the appropriate resources.
- Draw diagrams using the correct electrical symbols.

Question 1	Start of Unit	End of Unit
Which of the following is a source of electricity?	<u> </u>	
A car		
A light bulb		
A battery		
A cow		
Don't know		

Question 2 Which item(s) might you use batteries for?	Start of Unit	End of Unit
An acoustic guitar		
A torch		
A mobile phone		
A spoon		
Don't know		

Question 3	<u>Start of</u> <u>Unit</u>	End of Unit
What might you need to make a torch?	<u>Onn</u>	
Power source		
Bulb or LED		
Lenses		
Motor		
Don't know		

Question 4	Start of	End of Unit
What might you need to use if you want to make a toy car's wheels move?	<u>Unit</u>	
LED or Bulb		
Switch		
Motor		
Cells		
Don't know		

What I have enjoyed learning in Design Technology?.		