## Year 4: Electrical systems Knowledge Mat

Subject Specific Vocabulary Product outcome		Important knowledge	
design criteria	To make or draw plans for the structure or form of a product to achieve a set standard.		about electrical systems:
prototype	An original model on which improvements are later developed.		☐ I can identify electrical conductors and insulators and know that a battery contains
unique	Being the only one of its type. There is nothing else quite like it.		stored electricity which can be used to power products.
modify	To make changes to the product.		☐ I know the features of a torch and know how a torch works.
analyse	To examine and explain products.		
series circuit	A circuit where the current flows through each component.		☐ I can design a torch that meets the design specification.
fault	An error in the circuit so it does not work.	Components of a torch	
connection switch	A device used to make or break the connection.	1. Case 2. Contacts 3. Batteries 4. Switch	I can use appropriate equipment to create a working circuit using a switch.
insulator	A material that does not conduct electricity.		I can refer back to my original design and make improvements to refine my final, finished product.
conductor	A material that allows the electrical current to flow through it.	5. Reflector 6. Lamp 7. Lens	I can evaluate my torch referring to my design specification and provide suggestions on how I can improve my product.