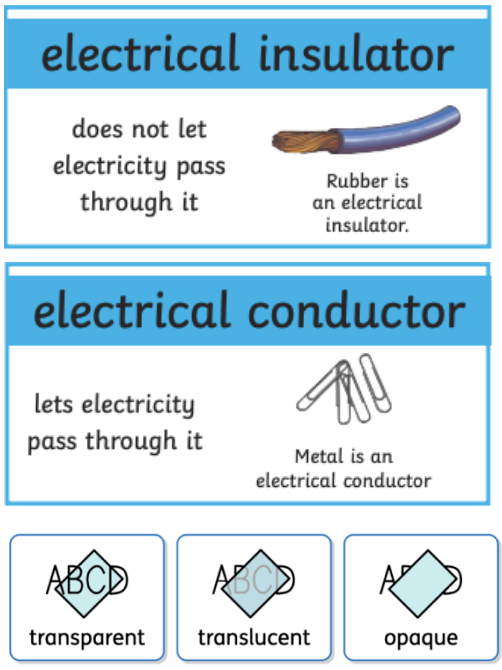
Grange Primary School
Learning together. Respecting each other. Achieving our potential.

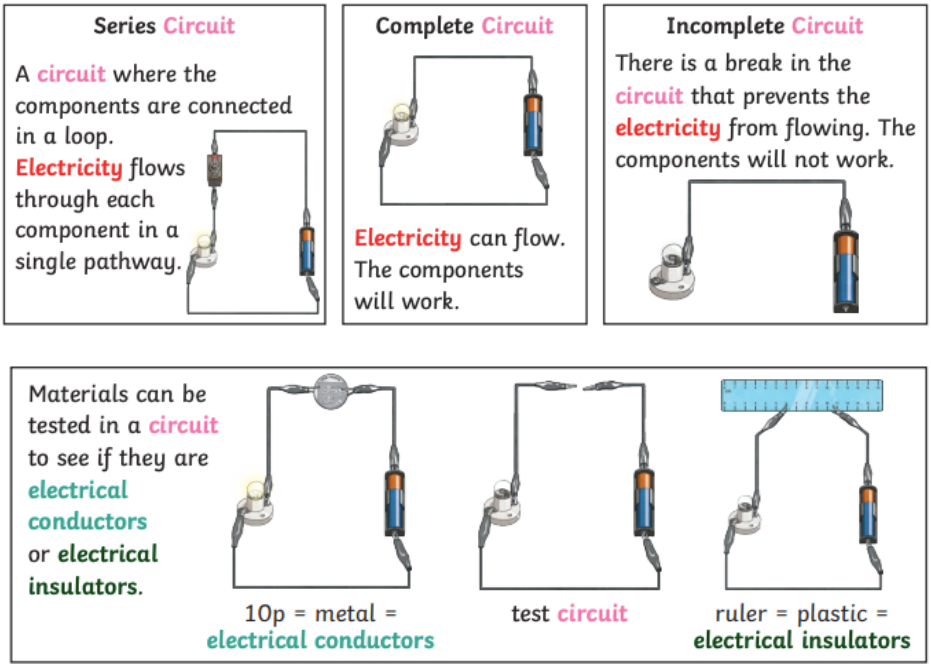
Knowledge Organiser

Year Group	Subject	Topic
5	Science	Properties of Materials

The Big Picture
In this unit the children will learn about the properties of materials. They will learn about specific properties of materials that can be tested for, namely: magnetism, transparency, hardness, electrical conductivity and insulation. The children will work scientifically to test various everyday items using magnets and torches to practise sorting materials into different groups based on their qualities. They will plan for and conduct an experiment to investigate which materials are the best thermal insulators before recording and evaluating results. Building on knowledge of electrical circuits from Year 4, the children will also build series circuits to test and group materials based on their electrical conductivity. Children will make predictions before investigations and will practise data analysis skills of their results to make evidence-informed conclusions.

Enquiry Question	
How can we test materials to find their properties? *How would you know if a material is a conductor of electricity?* *What components are needed to complete a circuit?*	*What is a thermal insulator?* *Which material is the best insulator of heat?* *Why is glass a suitable material for a window?*





Key Vocabulary	
Transparent	An object or material that lets all light pass through it.
Translucent	An object or material that lets some light pass thorugh it.
Opaque	An object or material that does not let any light pass through it.
Magnetism	A non-contact force created by a magnet.
Electrical conductor	A material that lets electricity pass through it.
Electrical insulator	A material that does **not** let electricity pass through it.
Circuit	A complete path that allows electrical energy to flow.
Thermal insulator	A material that does not let heat pass through it quickly/efficiently/easily.