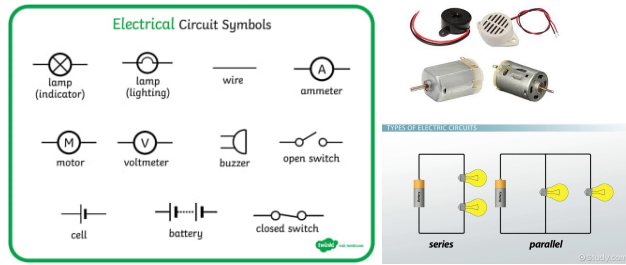
# H:\Logo.jpgYear 6 – Summer 1: Electricity and Engineering

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| **Key Theme** |
| \\10.4.91.2\TeacherShare\Curriculum\Agreed documents folder\Curriculum\Key themes\Icons\Explore.jpg |

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| **Key Figure** |
| **Sir James Dyson (b.1947)**  **British Engineer: Dual Cyclone Bagless Vaccum Cleaner**  Second richest person in the UK with an estimated net worth of £23 billion. |





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| **Sticky Knowledge & Skills** |
| * We use scientific symbols to represent the components (parts) of a circuit. * Circuit diagrams must be based on a rectangle and drawn with a ruler. * The brightness of a bulb or the loudness of a buzzer is affected by the number of cells in a circuit. * The brightness of a bulb or the loudness of a buzzer is affected by the voltage of cells in a circuit. * The number of components in a circuit can affect how they function. * The arrangement of components in a circuit can affect how they function. * The length of wires in a circuit can affect how the components function. |

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| **Key Vocabulary** | |
| circuit | a closed loop for electricity to travel around |
| cell (battery) | a stored source of electricity |
| circuit symbols | an internationally agreed code for recording electrical circuits (see diagram) |
| component | a part used in an electrical circuit |
| conductor | an object that allows electricity to flow through it  easily (objects made of metal are good conductors) |
| electricity | a form of energy caused by electrons moving |
| insulator | an object that does not allow electricity to flow through it easily |
| motor | a machine that turns electrical energy into  movement |
| switch | a switch turns an electrical circuit on or off by completing or breaking the circuit |
| voltage | a force that makes electricity flow through a wire (it is measured in volts) |

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| **Key Text** |
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| **Links to past learning** |
| In year 4 we learnt about electricity. This was during the COVID isolation period so our practical work was limited. |

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| **Core Value Focus** |
| Curiosity  Critical Thinking  Resilience |

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| Science (Y4 consolidation) | | Science (Y6 new learning) | |
| Name 4 appliances that run on electricity:  Label this diagram:    Name 3 common conductors:  Name 3 common insulators:  Will this circuit work? Why/why not? | TV, washing machine, wifi, tumble dryer, computer etc.  Wires, cell (battery), switch, bulb  Copper, aluminium, gold, silver  Glass, plastic, wood, rubber  No – the wire is connected to the insulator (glass) not the conductor (metal) | Draw a circuit diagram in which the switch can be used to turn the motor on and off.  You **MUST** use these three symbols in your diagram. | Check the following:  Circuit drawn with a ruler in rectangular shape  No gaps in wires  Correct symbols are used |