GCSE Checklist – Electric Circuits.

By the end of this topic (Chapter 2 in the AQA GCSE Physics textbook, pages 62-78), you should be able to do the following things:

Chapter 2a		Page(s)
Describe how electric circuits are shown as **circuit diagrams**.		62
Write down the difference between a **battery** and a **cell**.		62
Describe what determines the size of an **electric current**.		63
Calculate the size of an **electric current** from the **charge flow** and the **time taken**.		63
Write down what is meant by **potential difference**.		64
Write down what **resistance** is and what its **unit** is.		65-66
Write down **Ohm's law**.		65-66
Describe what happens when you reverse the potential difference across a resistor.		67-68
Describe what happens to the **resistance** of a **filament lamp** as its **temperature increases**.		67-68
Describe how the current through a **diode** depends on the potential difference across it.		67-68
Describe what happens to the resistance of a **temperature-dependent resistor (thermistor)** as its temperature increases.		82-84
Describe what happens to the resistance of a **light-dependent resistor (LDR)** as the light level increases.		82-84
Describe the current, potential difference, and resistance for each component in a **series circuit**.		70-73
Describe the **potential difference** of several **cells in series**.		70-71
Calculate the **total resistance** of two **resistors in series**.		72-73
Explain why adding **resistors in series** increases the **total resistance**.		72-73
Describe the currents and potential differences for components in a **parallel circuit**.		74-78
Calculate the **current** through a resistor in a **parallel circuit**.		74-78
Explain why the **total resistance** of two **resistors in parallel** is less than the resistance of the smaller individual resistor.		76-78
Explain why adding **resistors in parallel** decreases the **total resistance**.		76-78