Battery, diode, meters and drawing circuits

Core BUILD THE BASICS

C1 **State** the name of this symbol. [1]



C2 **State** the unit of current. [1]

C3 **State** the meter used to measure voltage. [1]

C4 **State** what a dot on a circuit diagram shows. [1]

C5 **State** how an ammeter is connected. [1]

C6 **State** how a voltmeter is connected. [1]

C7 **State** the unit of voltage. [1]

C8 **State** the name of this symbol. [1]



C9 **State** which way current flows through a diode. [1]

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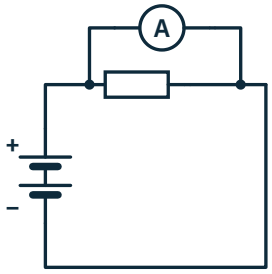
Stretch GO FURTHER

S1 **Complete** a circuit diagram: a battery, two lamps in parallel, and a voltmeter across one lamp. **[3]**

S2 A pupil's simulated meter reads −2.5 V. **State** the most likely mistake. **[1]**

S3 **Complete** a series circuit with a battery, a switch, a resistor and an ammeter. **[3]**

S4 **Describe** the mistake in this circuit. **[2]**



S5 **State** what a voltmeter reads if connected the wrong way round in a simulation. **[1]**

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Exam Ready QUALIFICATIONS SCOTLAND STYLE

E1 **Explain** why an ammeter must be connected in series. **[2]**

E2 **Complete** a circuit diagram of a battery, a diode and an LED with a resistor, so that the LED lights. **[3]**

E3 **Explain** why correct battery orientation matters in a simulation. **[2]**

E4 **Complete** a circuit diagram: a battery, two lamps in parallel, an ammeter measuring the total current and a voltmeter across one lamp. **[4]**

E5 **Explain** why a protection diode is drawn with its bar towards the positive supply. **[2]**

Total: 32 marks. Use the Data Booklet. Show your working and give units.