1. Sketch and explain a simple 'series' circuit.

2. Sketch and explain a simple 'parallel' circuit.

3. Explain the way electricity flows through a Zener diode. Support your explanation with a simple circuit drawing.

4. What is the difference between analogue and digital test instruments? Include an image of each type.

5. What is a Darlington pair? What is its function? Include a circuit diagram to support your explanation.

6. Describe the role of a preset resistor, in a simple light sensing circuit. Include a circuit diagram AND an image of a preset resistor.

7. What is a potential divider? 'Splits' voltage. Include a diagram / circuit diagram.

8. Explain how a potentiometer / variable resistor? Include an image.


10. What is Ohm's Law? Include one example calculation.

11. What is the difference between analogue and digital signals? Include a diagram of each signal.

12. What is a 'closed system'? Include a labelled diagram.

13. What is an 'open system'? Include a labelled diagram.

14. Integrated circuits are essential in our world. What are they?

15. Explain the basic function of a 555 integrated circuit. Include a diagram.