*Topic P2 Electricity key revision questions*

1. Define current in terms of electricity

2. Give the units for current, charge and time

3. What is the equation which links current, charge and time?

4. Draw circuit symbols for a battery, a variable resistor, an LED , a diode , a thermistor and an LDR

5. What is the formula relating potential difference, current and resistance?

6. Explain what is meant by electrical resistance. What are the units?

7. Describe the use of an ammeter and a voltmeter

8. Why are the graphs for an ohmic conductor (e.g. a resistor), a filament lamp and a diode all different?

9. Describe the graph for an LDR. What are they used for?

10. Describe the graph for a thermistor. What are they used for?

11. Draw a simple series circuit with 2 cells and two bulbs.

12. What are the problems associated with series circuits?

13. Explain what happens to the current in a series circuit.

14. Explain what happens to the voltage (p.d.) in a series circuit.

15. How is the resistance calculated in a series circuit?

16. Draw a simple parallel circuit with 2 cells and two bulbs.

17. What are the advantages associated with parallel circuits?

18. Explain what happens to the current in a parallel circuit.

19. Explain what happens to the voltage (p.d.) in a parallel circuit.

20. Define ac and dc

21. What are the names and colours of the three wires in most of our cables?

22. Draw a diagram to show where the 3 wires go to in a typical plug.

23. Explain why some cables are only two core.

24. What does the Earth wire actually do?

25. Define electrical power.

26. What is the relationship between power, energy transferred and time?

27. Give the units for the above.

28. What is the equation linking energy transferred, charge and potential difference?

29. What are the units used?

30. Give the equation relating power, potential difference and current.

31. State the units used.

32. Name the parts in the National Grid.

33. Explain the use of transformers in the Grid.