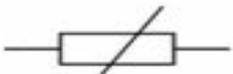
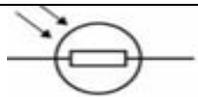
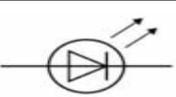
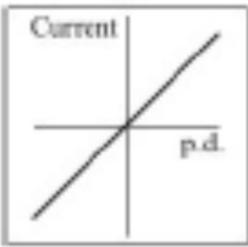
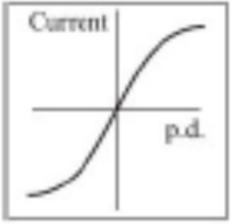
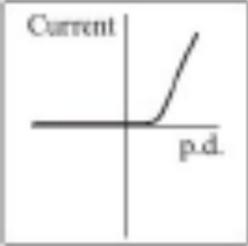


P2 Electrical Circuits

Electrical symbols		
1.		Switch (open)
2.		Cell
3.		Battery
4.		Lamp
5.		Voltmeter
6.		Ammeter
7.		Resistor
8.		Thermistor
9.		Variable resistor
10.		LDR
11.		LED
12.		Fuse
13.		Diode
Functions of electrical components		
14.	Which component only lets current flow in one direction?	Diode (and LED)
15.	Why will current not flow backwards through a diode?	The resistance is very high
16.	Which component will only emit light when current flows through it in the forward direction?	LED (light emitting diode)
17.	Why is the use of LEDs increasing?	They use a smaller current than other forms of lighting

18. Which components can change their resistance?	Variable resistor, thermistor, LDR
19. Give a use of LDRs	Switching lights on when it gets dark
20. What happens to the resistance in a light dependent resistor (LDR) as light intensity increases?	Decreases
21. What happens to the current through a light dependent resistor (LDR) as light intensity increases?	Increases
22. Give a use of thermistors	Freezer alarms
23. What happens to the resistance in a thermistor as temperature increases?	Decreases
24. What happens to the current through a thermistor as temperature increases?	Increases
Definitions, symbols and units	
25. What is electric current?	Flow of electric charge
26. What is the symbol for current?	I
27. What are the units for current?	Amps (A)
28. What is the work done per coulomb of charge that passes between 2 points called?	Potential difference or voltage
29. What is the symbol for potential difference?	V
30. What are the units for potential difference?	Volts (V)
31. What is the symbol for electric charge?	Q
32. What are the units for electric charge?	Coulombs (C)
33. What are the units for work?	Joules (J)
34. What reduces current in a circuit?	Resistance
35. What is the symbol for resistance?	R
36. What are the units for resistance?	Ohms (Ω)

37. What happens to the current if the resistance is increased?	Decreases
38. What happens to the current if the resistance is decreased?	Increases
39. Under what conditions is the current through a resistor directly proportional to the potential difference across the resistor?	Constant temperature
40. Which component is shown in this graph? 	Resistor (at constant temperature)
41. Which component is shown in this graph? 	Filament bulb
42. Which component is shown in this graph? 	Diode
Series and parallel circuits	
43. How do you work out the resistance in a series circuit?	Add up the resistances of each component
44. The current in a series circuit is.....	the same through each component
45. The potential difference in a series circuit is.....	shared between the components
46. The current in a parallel circuit is....	Shared between the components
47. The potential difference in a parallel circuit is....	the same through each component