

Domestic Electricity and Resource Checklist

	Pages
Write down what direct current is and what alternating current is.	89
Describe what is meant by the live wire and the neutral wire of a mains circuit.	89-90
Describe the National Grid.	95-96
Describe how to use an oscilloscope to measure the frequency and peak potential difference of an alternating current.	
Describe what the casing of a mains plug or socket is made of and explain why.	
Write down what is in a mains cable.	89
Write down the colours of the live, neutral, and earth wires.	89-90
Explain why a three-pin plug includes an earth pin.	90
Describe how power and energy are related.	91-94
Use the power rating of an appliance to calculate the energy transferred in a given time.	93
Calculate the electrical power supplied to a device from its current and potential difference.	91-94
Work out the correct fuse to use in an appliance.	
Calculate the flow of electric charge given the current and time.	63
Write down the energy transfers when electric charge flows through a resistor.	65,93
Describe how the energy transferred by a flow of electric charge is related to potential difference.	93
Link the electrical energy supplied by the battery in a circuit to the energy transferred to the electrical components.	93
Calculate the energy supplied to an electrical appliance from its current, its potential difference, and how long it is used for.	93
Work out the useful energy output of an electrical appliance.	93,96
Work out the output power of an electrical appliance.	93,96
Compare different appliances that do the same job.	

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		Pages
Describe how most energy demands are met today.		47,58
Name the energy resources that are used.		47-58
Describe how nuclear fuels are used in power stations.		57
Name the other fuels that are used in power stations.		55-56
Name the other fuels that are used to generate electricity.		55-56
Describe what a wind turbine is made up of.		49
Describe how waves can be used to generate electricity.		52-54
Name the type of power station that uses water running downhill to generate electricity.		52-54
Describe how the tides can be used to generate electricity.		52-54
Describe what solar cells are and how they are used.		49-50
Describe the difference between a panel of solar cells and a solar heating panel.		49-50
Describe what geothermal energy is.		50-51
Describe how geothermal energy can be used to generate electricity.		50-51
Describe what fossil fuels do to the environment.		56,58
Explain why people are concerned about nuclear power.		57,58
Describe the advantages and disadvantages of renewable energy resources.		47-57
Evaluate the use of different energy resources.		47-57
Describe how best to use electricity supplies to meet variations in demand.		58-59
Compare the economic costs of different energy resources.		
Name energy resources that need to be developed to meet people's energy needs in the future.		