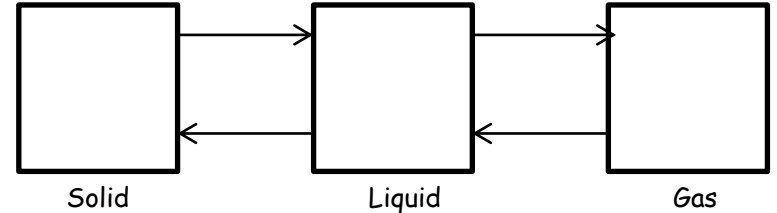


P1 REVISION - CHAPTER 1 - ENERGY TRANSFER BY HEATING

Draw a diagram to show conduction:

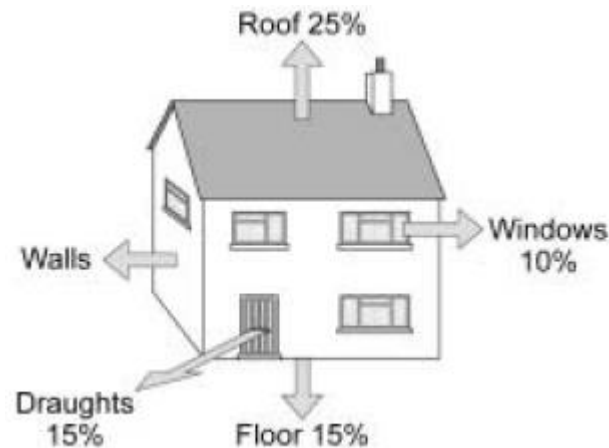
Fill in the diagram and label the arrows:



Draw a diagram to show convection:

Draw a diagram to show evaporation:

Calculate the percentage of energy lost through the walls:



How is heat transferred by infrared radiation?

What is specific heat capacity?

KEY WORDS:

Infrared radiation
Conduction
Convection
Radiation
Evaporation
Diffusion

Free electrons
Density
Specific heat capacity
Insulation
U-values

ASSESSMENT:



P1 REVISION - CHAPTER 2 - USING ENERGY

Write a definition for these different types of energy:

Magnetic:

Kinetic

Thermal:

Light:

Gravitational potential

Chemical:

Sound:

Electrical:

Elastic potential

Nuclear:

Here is a sentence to help you remember them:

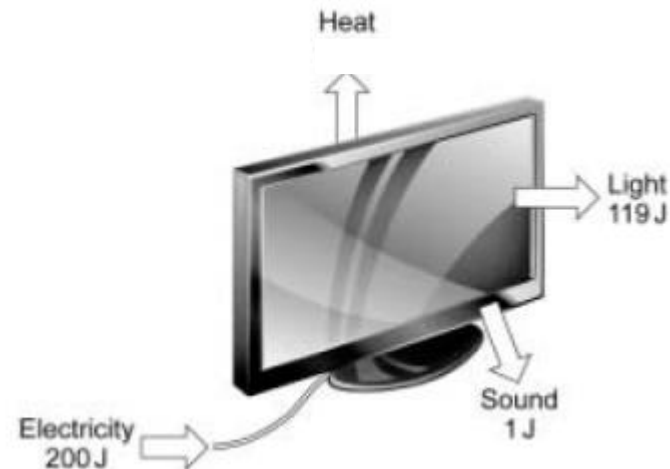
Most Kids Hate Learning GCSE
Energy Names

What is conservation of energy?

What is useful energy?

What is wasted energy?

Calculate the amount of energy wasted as heat:



Calculate the efficiency of the television:

KEY WORDS:

Chemical energy	Conservation of energy
Kinetic energy	Useful energy
Gravitational potential energy	Wasted energy
Elastic potential energy	Newtons (N)
Electrical energy	Joules (J)
	Sankey diagram
	Efficiency

ASSESSMENT:



P1 REVISION - CHAPTER 3 - ELECTRICAL ENERGY

What is the cost of this electricity bill?

AQA electricity Customer reference: 2634724983
Date sent out: 18 September 2007

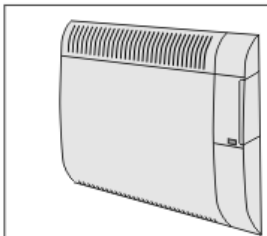
Your electricity bill

Present reading: 62740 (e) taken on 13 September
Previous reading: 62580 taken on 12 June

Used: 160 kWh

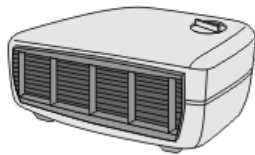
Cost per kWh = 12p (e) = estimated reading
Cost of electricity used = _____

If you needed to use a heater for 5 hours, which of these would be the most cost effective?



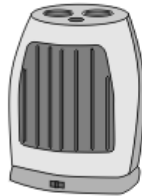
400W oil-filled panel heater (wall mounted)

- 3 heat settings
- Efficient background heat
- Safety overheat cut-out



3kW fan heater

- 2 heat settings
- Power indicator light
- Cool air fan setting



1800W ceramic heater

- 2 heat settings
- 8 hour timer
- Power indicator light
- Safety overheat cut-out

Fill in the gaps:

Appliances	Useful Energy	Wasted energy
Light bulb		
Electric heater		
Electric toaster		
Electrical kettle		
Hair dryer		
Electric motor		
DVD drive		

KEY WORDS:

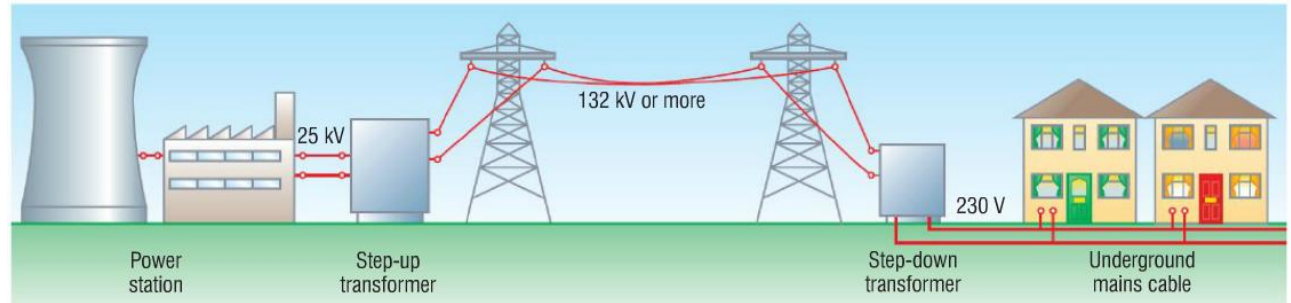
Watt (W)
Kilowatt (kW)
Kilowatt-hour (kWh)
Electricity meter
Cost effective

ASSESSMENT:



P1 REVISION - CHAPTER 4 - GENERATING ELECTRICITY

Why do we need to step-up and step-down the voltage?

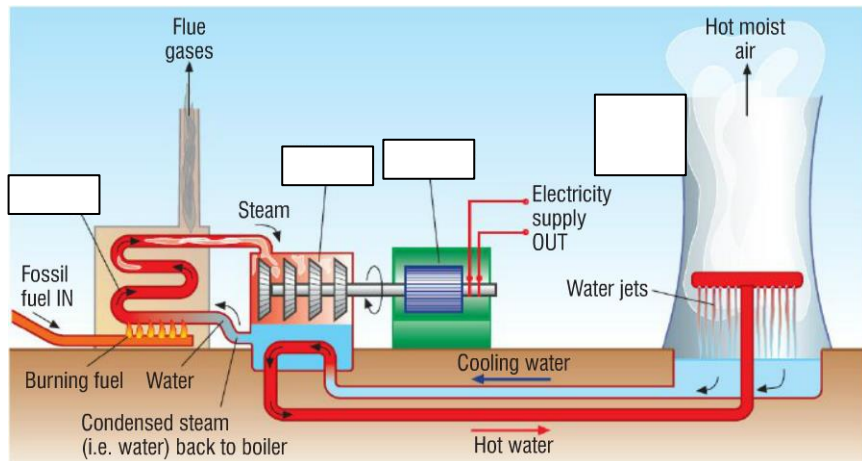


Explain supply and demand in terms of generating electricity:

Fill in this table:

Name of Energy Source	2 Advantages	2 Disadvantages
Fossil fuel		
Renewable energy source		

Label the parts of the power station:



KEY WORDS:

- Biofuel
- Tidal power
- Carbon capture and storage
- Atomic nucleus
- Solar cells
- National grid
- Nuclear fission
- Solar heating panels
- Step-up transformers
- Renewable energy
- Geothermal energy
- Step-down transformers
- Wind power
- Acid rain
- Hydroelectric power

ASSESSMENT:



P1 REVISION - CHAPTER 5 - WAVES

Name the parts of the wave:

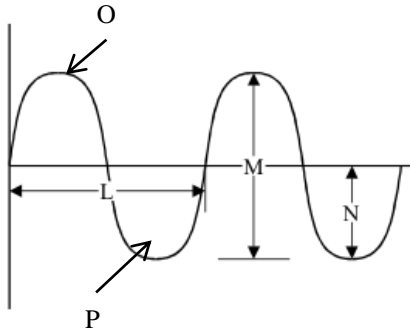
L =

M =

N =

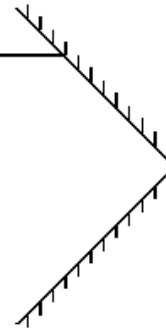
O =

P =

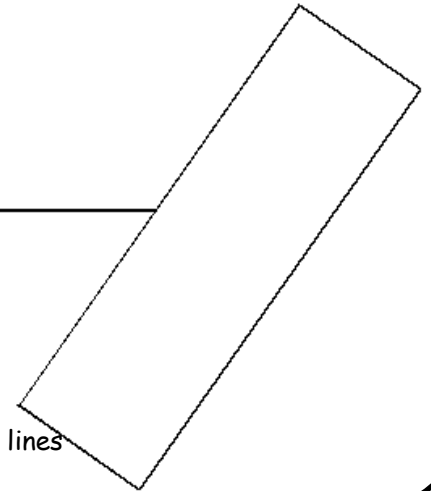


Complete the ray diagrams to show reflection and refraction

Source of light



Source of light



Don't forget to label your diagrams properly with the angles (incidence, reflection & refraction) and normal lines

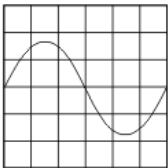
Describe the sounds:

A:

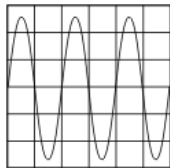
C:

B:

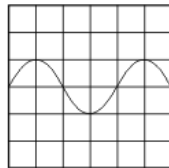
D:



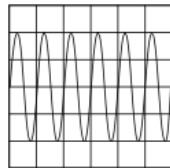
A



B



C



D

What are mechanical waves?

What are electromagnetic waves?

What causes a sound wave?

Complete the equation:

Wave speed = frequency X _____

_____ = Hz X m

v = X λ

KEY WORDS:

Mechanical
Electromagnetic
Perpendicular
Transverse
Longitudinal
Amplitude
Wavelength
Frequency

Plane mirror
Normal
Angle of incidence
Angle of reflection
Refraction
Diffraction

ASSESSMENT:



P1 REVISION - CHAPTER 6 - ELECTROMAGNETIC WAVES

Fill in the gaps in the electromagnetic spectrum:



What is the wavelength of light?

What is the Doppler effect?

How do communicate using waves:

Why are mobiles phones considered dangerous?

How do optical fibres work? (Draw a diagram)

What do we use visible light for?

What do we use microwaves for?

What is the Big Bang Theory?

What do we use infrared for?

What do we use radio waves for?

KEY WORDS:

Radio	White light
Microwave	Optical fibres
Infrared	Doppler effect
Visible light	Big bang theory
Ultraviolet	Cosmic
X-ray	microwave
Gamma	background radiation

ASSESSMENT:

