Qualification Accredited

OCR
Oxford Cambridge and RSA

GCSE (9-1)

Examiners' report

GATEWAY SCIENCE COMBINED SCIENCE A

J250

For first teaching in 2016

J250/12 Summer 2022 series

Version 1

ocr.org.uk/science

Contents

Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers are also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

Advance Information for Summer 2022 assessments

To support student revision, advance information was published about the focus of exams for Summer 2022 assessments. Advance information was available for most GCSE, AS and A Level subjects, Core Maths, FSMQ, and Cambridge Nationals Information Technologies. You can find more information on our website.

Paper 12 series overview

J250/12 is one of six Papers for the GCSE (9-1) Gateway Science Combined Science A Higher Tier Qualification. It is the second of the two physics papers covering Topics P4 Waves and Radioactivity, P5 Energy, P6 Global challenges and CS7 Practical skills. There is assumed knowledge of P1 – P3 and this Paper includes synoptic assessment.

This is the third full June examination series for J250, there being very limited entries for 2020 and 2021 November examination series.

Candidates who used the data sheet and clearly showed steps in calculations performed well.

Candidates who did well on this paper generally did the following:	Candidates who did less well on this paper generally did the following:
• read the questions carefully, considered the command words and gave full responses for questions asking about, e.g., identifying, suggesting, drawing a circuit diagram, drawing a wave pattern, a description and an explanation. • considered the number of marks available for the question and provided a suitable detailed response as required for the allocated marks. • worked through calculations in a methodical manner, showing clear steps in their calculations. • gave a well-developed line of reasoning which was clear, logically structured and relevant for the LOR, see question 15(c).	• tried to change an answer to a multiple choice question by overwriting the letter rather than crossing out the original letter and rewriting the new letter clearly. • provided a very brief and simple explanation for questions that were worth more than 1 mark. • gave just the final numerical response for calculations, without showing the steps and working out. This means that if there is an incorrect step in the calculation making the final numerical response incorrect then 0 marks were given. • gave muddled responses and repeated information for the LOR, see question 15(c).

Section A overview

This section consists of 10 multiple choice questions testing AO1 and AO2.

Question 1

1 A remote control can be used to operate a television.

Remote control

Television

Which row in the table describes how energy is transferred?

	Remote control	Television
A	3 V a.c. from batteries	230 V d.c. from domestic mains supply
B	3 V d.c. from batteries	230 V a.c. from domestic mains supply
C	230 V a.c. from domestic mains supply	3 V d.c. from batteries
D	230 V d.c. from domestic mains supply	3 V a.c. from batteries

Your answer ☐ **[1]**

Most candidates were able to identify the remote control as having 3V and television as having 230V. A few candidates found it difficult to identify the type of current as being d.c. for the batteries and a.c. for the mains supply. Therefore, the most common error was to select response A rather than the correct response B.

Question 2

2 What is a typical acceleration of a car driving along a road?

A $3\,m/s^2$

B $10\,m/s^2$

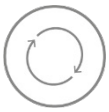
C $60\,m/s^2$

D $80\,m/s^2$

Your answer ☐ **[1]**

Responses for this question were varied, with candidates giving all possible responses in equal amounts.

Assessment for learning



Candidates need to be able to recall, estimate, discuss and appreciate the magnitude of velocities and accelerations for typical everyday experiences such as for wind and sound, walking, running, cycling and other transportation systems.

Question 3

3 What is the **difference** between alternating voltage and direct voltage?

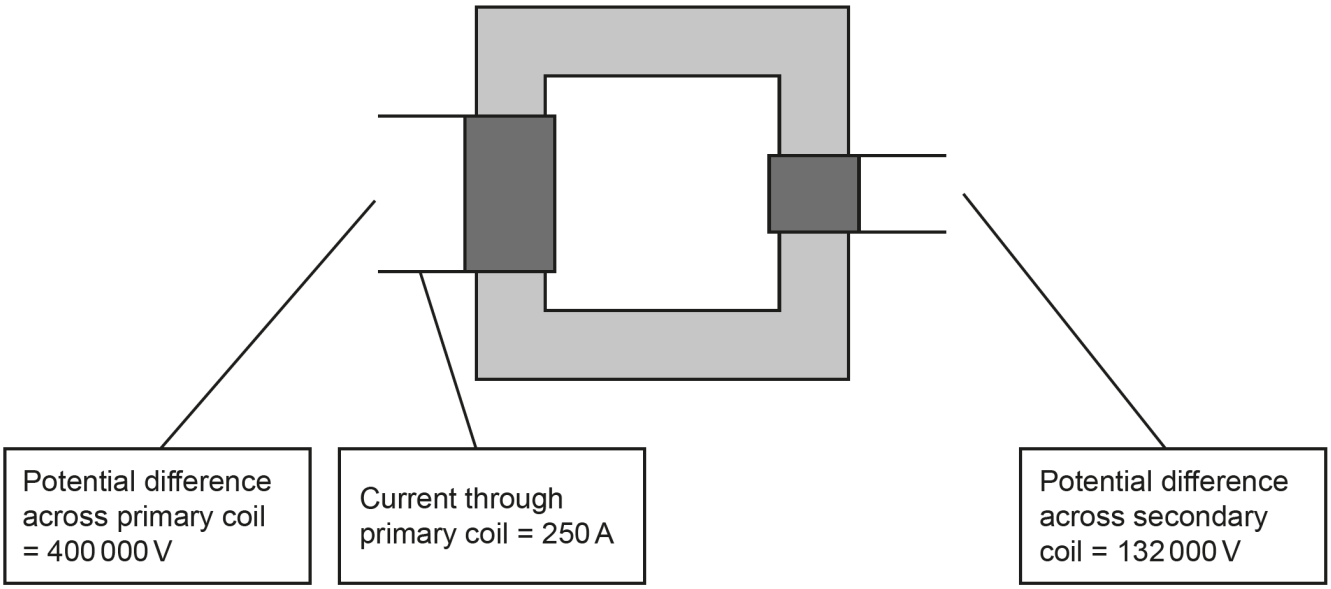
	Alternating voltage	Direct voltage
A	changes direction	changes direction
B	changes direction	does not change direction
C	does not change direction	changes direction
D	does not change direction	does not change direction

Your answer ☐ **[1]**

The majority of candidates gave the correct response of B showing a clear understanding of the difference between alternating voltage and direct voltage.

Question 4

4 This is a diagram of a transformer:



What is the current through the secondary coil?

Use the Data Sheet.

A 0.00132A

B 125A

C 211A

D 758A

Your answer ☐ **[1]**

The majority of candidates were able to correctly calculate the current in the secondary coil. These candidates tended to show all the steps for their calculation in the space next to the options. The most common incorrect response was B, 125A.

Exemplar 1

What is the current through the secondary coil?

Use the Data Sheet.

A 0.00132A

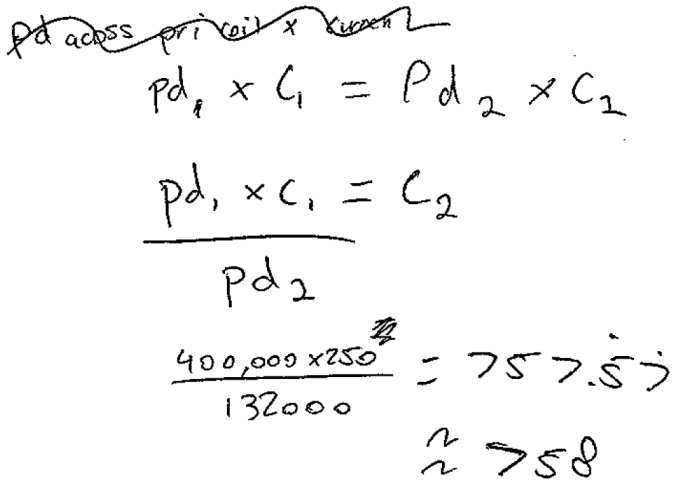
B 125A

C 211A

D 758A

Your answer D

[1]



In this response, it was evident that the candidate had rearranged the equation given to calculate the current through the secondary coil. Candidates who used the datasheet and showed steps in calculations like this performed well.

Question 5

5 A filament lamp has a resistance of 1000 Ω and a current of 0.25A.

What is the power of the filament lamp?

Use the equation: power = $(\text{current})^2 \times \text{resistance}$

A 62.5 W

B 250 W

C 4000 W

D 250 000 W

Your answer

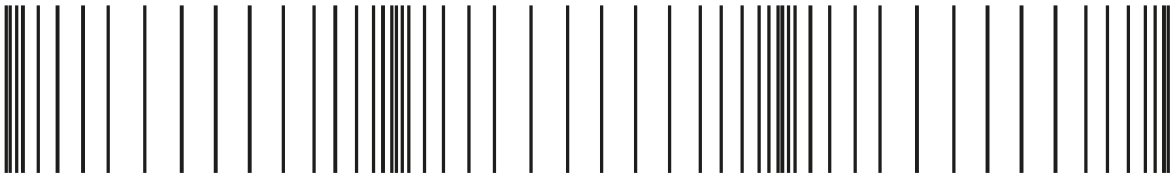
[1]

The majority of candidates selected option A, 62.5 W, having carefully read the question and used the values of current as 0.25A and resistance of 1000Ω in the equation given to obtain the correct response.

Question 6

6 This is a picture of a longitudinal wave.

The wave is drawn to scale.



What is the wavelength of the wave?

A 0.5 cm

B 2.5 cm

C 5.0 cm

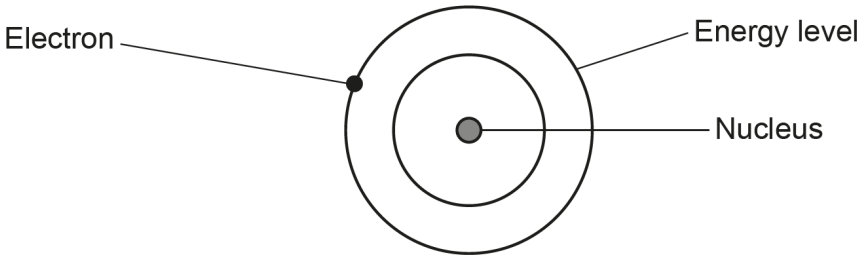
D 10 cm

Your answer ☐ **[1]**

The majority of candidates selected option C. These candidates carefully drew a double ended arrow on the picture of the longitudinal wave between two adjacent areas of compression. They then measured the length of this double ended arrow as approximately 5cm so selecting option C as the most reasonable option. Candidates without any lines or arrows on the picture of the longitudinal wave tended to give an incorrect response.

Question 7

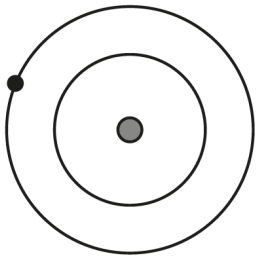
7 The diagram shows an electron in an atom.



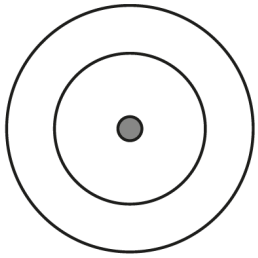
When the electron moves between energy levels, the atom **emits** electromagnetic radiation.

Which diagram shows what happened to the electron?

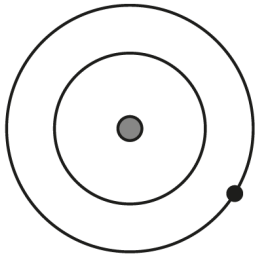
A



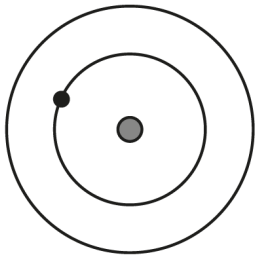
B



C



D



Your answer ☐ **[1]**

Half the candidates gave the correct response D. The most common incorrect response was response B.

Question 8

8 The table shows information about the number of protons, neutrons and electrons in different atoms.

Atom	Number of protons	Number of neutrons	Number of electrons
1	8	10	8
2	10	10	10
3	10	12	10
4	12	12	12

Which two atoms are isotopes?

A **1** and **2**

B **1** and **3**

C **2** and **3**

D **3** and **4**

Your answer ☐ **[1]**

This question was not answered well with a high number of responses selecting either A or B, rather than the correct response C.

Misconception

Candidates sometimes find it difficult to describe what an isotope is in terms of the number of protons, neutrons and electrons. Atoms that are isotopes have the same number of electrons and protons but different number of neutrons. A misconception is that isotopes have different numbers of protons and electrons too.

Question 9

9 The thinking distance of a car at 20 mph is 6 m.
The braking distance of a car at 20 mph is 6 m.

What is the thinking distance and braking distance of the car at 40 mph?

	Thinking distance (m)	Braking distance (m)
A	6	12
B	12	12
C	12	24
D	24	24

Your answer ☐ **[1]**

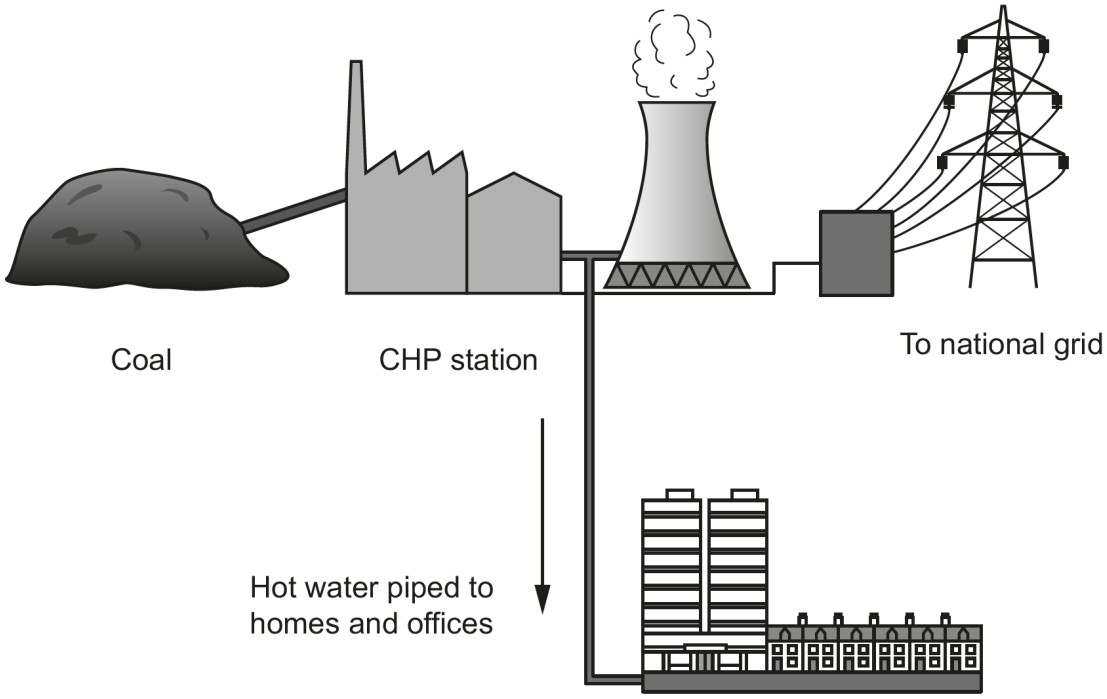
This question was not answered well with a high number of responses selecting option B rather than option C.

Misconception

Many candidates find it difficult to describe what happens to thinking distance and braking distance when the speed of a car doubles. When the speed of a car doubles the thinking distance doubles and the braking distance quadruples. A common misconception is that when the speed of a car doubles the thinking distance and the braking distance also doubles.

Question 10

10 The diagram shows a power station called a 'combined heat and power' (CHP) station.



Why is a CHP station is more efficient than a coal fired power station?

A Less energy is wasted in a CHP station.

B A CHP station produces renewable energy.

C The homes and offices contain insulation.

D There is more input of chemical energy in a CHP station.

Your answer ☐ **[1]**

Erratum notice

Turn to **page 7** of the **question paper** and look at **question 10.**

In the first line, cross out the word 'is' after the word 'station.

The sentence should now read:

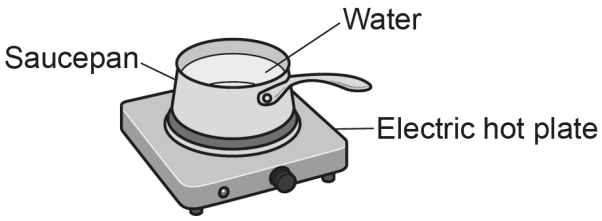
Why is a CHP station more efficient that a coal fired power station?

The majority of candidates correctly selected response A and demonstrated good practice by systematically working through the possible distractors and placing a cross next to the statements that were not correct.

Question 11 (a)

11 (a) Student **A** uses the electric hot plate in **Fig. 11.1** to increase the temperature of water in a saucepan.

Fig. 11.1



(i) Student **A** wants to calculate the thermal energy transferred to the saucepan of water.

These are the steps in their method:

1 Measure the volume of water with a balance.
2 Measure the starting temperature of the water with a thermometer.
3 Use the equation:

change in thermal energy = mass × specific heat capacity × change in temperature

Student **A**'s method is **incorrect**.

Identify the **two** mistakes the student has made and write down the correction for each mistake.

Mistake **1** .....

.....

Correction **1** .....

.....

Mistake **2** .....

.....

Correction **2** .....

.....

[3]

Very few responses achieved full marks for this question. Most were awarded 1 mark for stating that the final temperature needs to be measured but often did not go on to explain that only the starting temperature had been measured in this experiment. Fewer candidates mentioned that the mass of water needs to be measured rather than the volume of water. It is important to look carefully at the information provided in the question and at the quantities required to be able calculate the thermal energy transferred. Responses which did not score well often stated that a measuring cylinder was required to measure volume, a quantity not required to calculate the thermal energy transferred.

Assessment for learning

Candidates need to read the question carefully and look carefully at any information provided, especially equations. This question asks candidates to calculate the thermal energy transferred so they need to look at the equation to find out which measurements are required. In this case the measurements required are mass, specific heat capacity and change in temperature.

Question 11 (a) (ii)

(ii) Student **A** suggests wrapping insulation around the saucepan in **Fig. 11.1**.

Suggest **another** way student **A** can improve their experiment.

.....

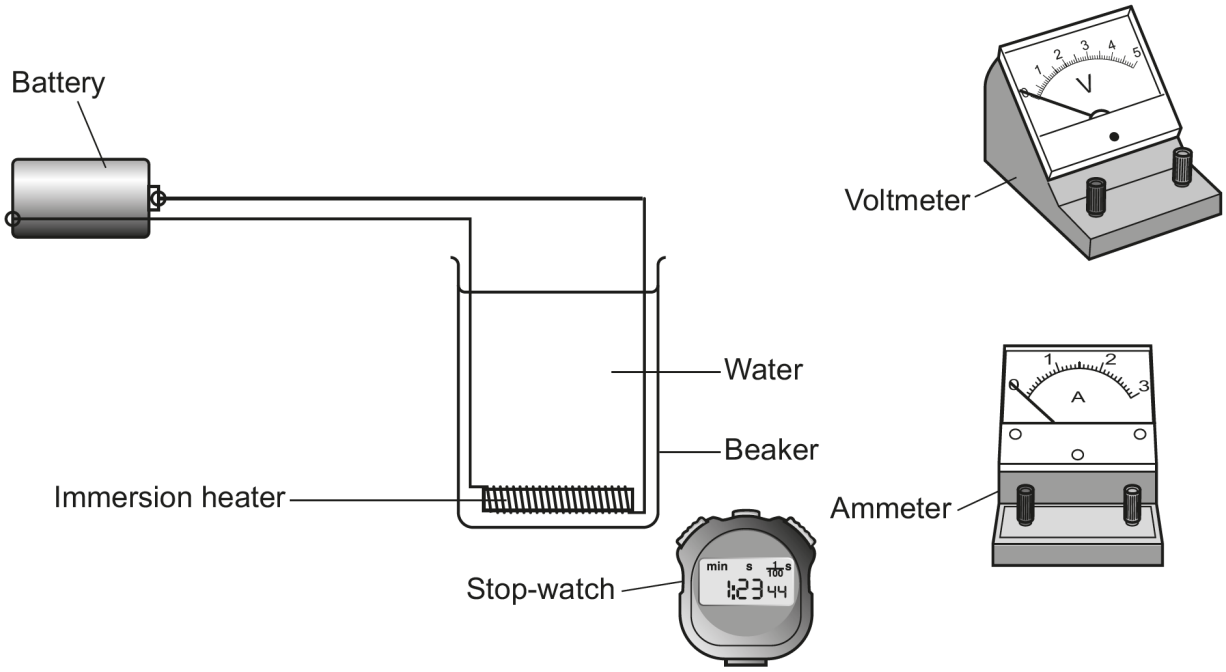
..... **[1]**

The majority of candidates were able to make the suggestion of using a lid or taking repeat readings as a way to improve their experiment.

Question 11 (b)

(b) Student **B** uses the immersion heater in **Fig. 11.2** to increase the temperature of water in a beaker.

Fig. 11.2



Describe an experiment to measure the **energy** transferred to the immersion heater, using the equipment in **Fig. 11.2**.

In your answer include:

- a method
- a circuit diagram
- an equation from the Data Sheet
- the symbol for a resistor to represent the immersion heater in your circuit.

.....

.....

.....

.....

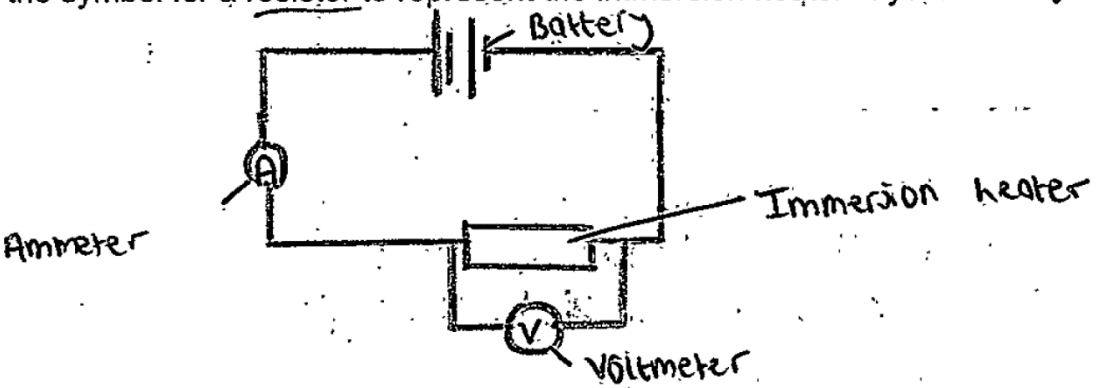
.....

..... **[4]**

This question required candidates to describe an experiment to measure energy transferred to the immersion heater using the equipment in the diagram. Candidates were given a bullet point list of things to include in their response. Candidates who used the bullet point list and included all these things in their response usually gained 3 or 4 marks for their response. A number of responses did not include a circuit diagram or the symbol for a resistor and so usually only gained 1 mark.

Exemplar 2

In your answer include:
- a method ✓
- a circuit diagram ✓
- an equation from the Data Sheet ✓
- the symbol for a resistor to represent the immersion heater in your circuit. ✓



Set up the apparatus as shown in the diagram

Measure and record the current shown on the ammeter

Measure and record the potential difference shown on the voltmeter

use the equation energy transferred = potential difference × current [4]

22

Turn over

In this response the candidate has used the bullet point list and ticked the things off as they responded to the question. This ensures that they have completed all the requirements for the question. This response has been given 3 marks for the circuit diagram.

Question 12 (a)

12 This question is about radioactivity.

(a) Which statements about the nucleus of an atom are correct?
Tick (✓) **two** boxes.

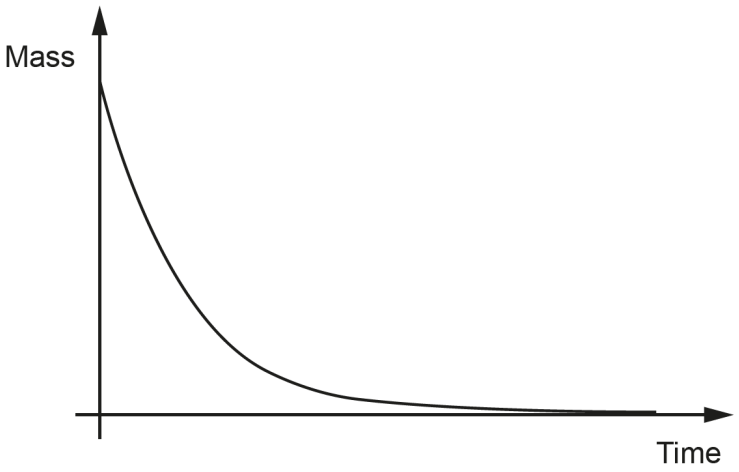
In radioactive atoms, the nucleus is stable.	☐
Most of the nucleus contains empty space.	☐
Scientists can say exactly when a nucleus will emit radiation.	☐
The diameter of a nucleus is approximately 1 nm.	☐
The mass of a nucleus is much less than the mass of an atom.	☐
The nucleus contains protons and electrons.	☐
The nucleus contains protons and neutrons.	☐
The nucleus has a positive charge.	☐

[2]

The majority of candidates gained both marks for this question demonstrating that candidates have a good knowledge about the constituents and charge of the nucleus of an atom.

Question 12 (b)

(b) The graph shows how the mass of a radioactive element changes with time.



Describe the trend shown by the graph.

.....

.....

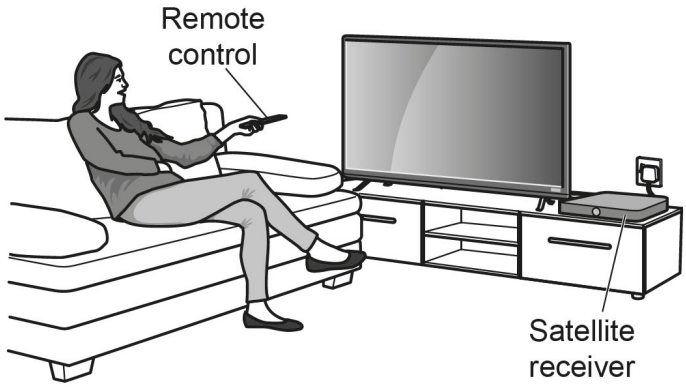
.....

..... **[2]**

The majority of responses were able to correctly state that as the time increases the mass decreases. Those who stopped their response at this point and did not describe the mass as decreasing as a decreasing rate were awarded 1 mark. Where a question is worth 2 marks candidates need to give an appropriately detailed response to be given both marks.

Question 13 (a)

13 A satellite receiver can be used to watch television channels. It works using a remote control.



(a) Channel 4 uses a wave with a frequency of [redacted].

The speed of the wave is 3.0×10^8 m/s.

Calculate the wavelength of the wave.

Use the equation: wave speed = frequency × wavelength
Give your answer to **3** decimal places.

Wavelength = ... m **[4]**

The majority of candidates correctly calculated the wavelength. These candidates usually rearranged the equation, wave speed = frequency x wavelength to make wavelength the subject. They then substituted the values for frequency and speed into the equation. Giving the answer to 3 decimal places was almost always correct.

Question 13 (b)

(b) The remote control emits infra-red or radio waves when a button is pressed.

The remote control also contains a light which flashes when a button is pressed.

Explain why the light is needed to show when a button is being pressed.

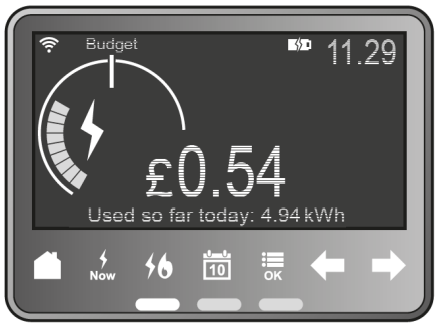
.....

..... **[1]**

Half of all responses were correct. This was generally by explaining that infra-red waves cannot be seen. Those responses which were incorrect invariably thought the light was needed to control the satellite receiver, that the satellite receiver need to know that the infra-red wave had been emitted or that light was needed to control certain functions such as the volume.

Question 13 (c) (i)

(c) A student uses a smart meter to check their energy use at home.



The student thinks they can save energy by unplugging their satellite receiver from the mains supply for 8 hours at night.

	Power of satellite receiver (W)
Receiver switched on	25
Receiver switched off	15
Receiver unplugged	0

(i) Calculate the amount of energy saved by unplugging the receiver compared to switching the receiver off for 8 hours at night. Use the Data Sheet.

Give your answer in kWh.

Energy saved = ... kWh **[4]**

This question proved challenging. Candidates were required to calculate the power saved by looking carefully at the information in the question. This required candidates to calculate the difference between the receiver being switched off, 15W, and the receiver unplugged, 0W. Many candidates did not read the question carefully and calculated the difference between the receiver being switched on, 25W, and the receiver being switched off, 15W. Candidates were then required to convert the power saved from W to kW, a process that lower performing candidates found challenging. These candidates also tried to convert the 8 hours into minutes or seconds. Most candidates were able to substitute their values for power and time into the equation, energy = power x time.

Misconception

Many candidates believe that to convert W to kW you need to multiply by 1000 rather than divide by 1000.

Question 13 (c) (ii)

(ii) The government wants all homes to have a smart meter by 2024.

Describe how smart meters may change the way energy resources are used.
Use your answer to **(c)(i)**.

.....

.....

.....

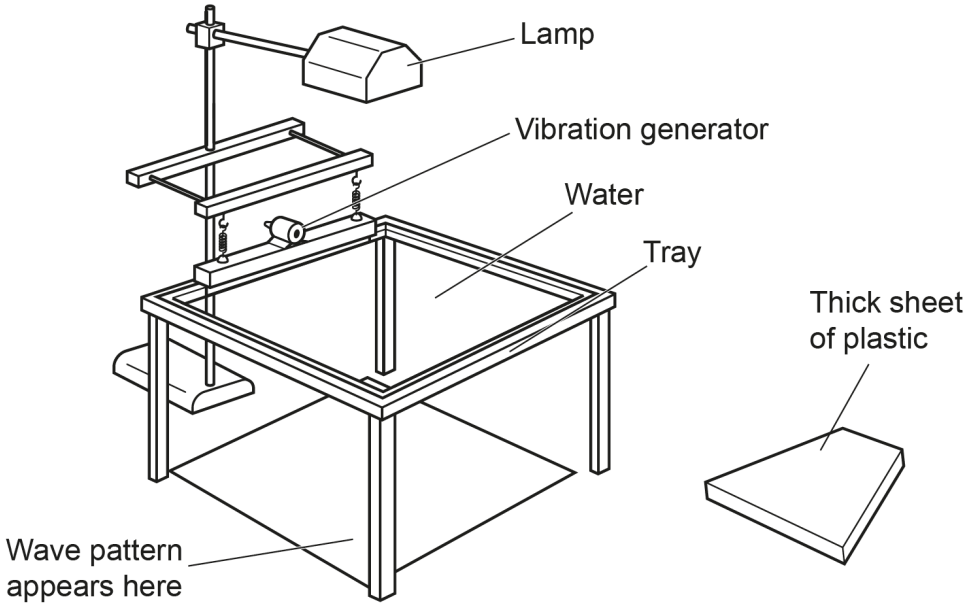
..... **[2]**

Half of all candidates were given both marks for this question. These candidates usually described smart meters being used to find out the cost of the using appliances in the house and using information to try to reduce the usage of certain appliances in the home.

Question 14 (a)

14 A teacher uses a ripple tank to show refraction of water waves.
Fig. 14.1 shows a ripple tank.

Fig. 14.1



(a) Explain how the ripple tank and a thick sheet of plastic can be used to show refraction of water waves.

.....

.....

.....

..... **[2]**

This question proved to be a very good differentiator. Many responses incorrectly thought that the thick sheet of plastic was used to refract the light and was placed under the ripple tank on the floor so the wave pattern could be seen clearly or that the plastic would float on the water and move up and down with the wave.

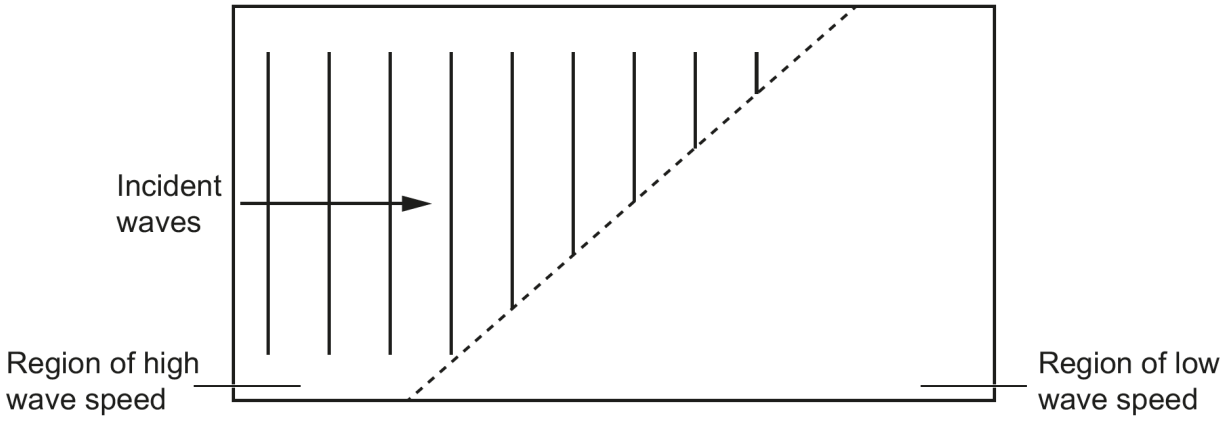
Assessment for learning

Candidates would benefit from conducting and/or observing experiments using ripple tanks to demonstration reflection and refraction.

Question 14 (b)

(b) Complete **Fig. 14.2** to show the wave pattern when the incident waves enter the region of low wave speed.

Fig. 14.2



[2]

Many candidates did not attempt this question. Many responses just continued the wave pattern in the same direction and with the same spacing between the lines of the wave pattern or drew the wave pattern with larger spaces between the lines.

Question 15 (a)

15 In 1986, a nuclear power station exploded in Chernobyl.

The radioactive isotopes caesium-137 (Cs-137) and iodine-131 (I-131) were released.

(a) An old unit of activity is the Curie (Ci).

- The activity of Cs-137 released in the explosion was 2 300 000 Ci.
- 1 Ci = 37 000 000 000 Bq

Calculate the activity of Cs-137 released in Bq.
Give your answer in standard form.

Activity = ... Bq **[2]**

The majority of candidates were able to calculate the activity and give the answer in standard form.

Question 15 (b)

(b) Cs-137 emits beta radiation. The table shows some information about this decay.

Element	Symbol	Charge on nucleus	Mass of nucleus
Caesium	Cs	+55	137
Barium	Ba	+56	137

Use the table to complete the balanced nuclear equation for Cs-137 decay.

$$\text{.....}^{\text{.....}}\text{Cs} \longrightarrow \text{.....}^{\text{.....}}\text{Ba} + \text{.....}^{\text{.....}}\beta$$

[3]

About a third of candidates were given all 3 of the available marks for this question. However, some candidates confused the position of the mass number and atomic number in the balanced nuclear equation and wrote the 55 on the top line and the 137 on the bottom line for Cs. The (0, -1) for β was often written as (-1, 0) or (1, 0) or (0, 1).

Question 15 (c)*

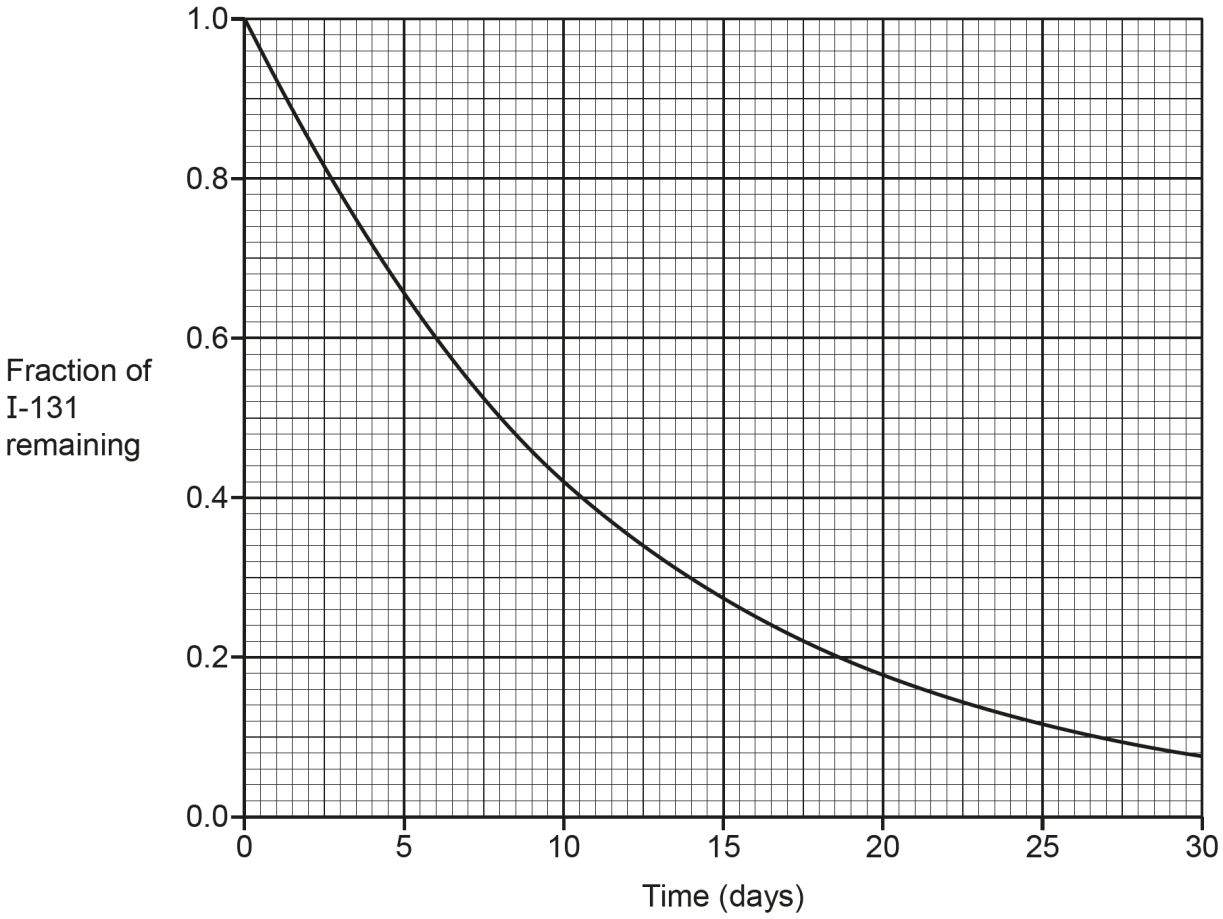
***(c)** The isotopes I-131 and Cs-137 from Chernobyl contaminated sheep.

The government stopped the movement of contaminated sheep for 26 years.

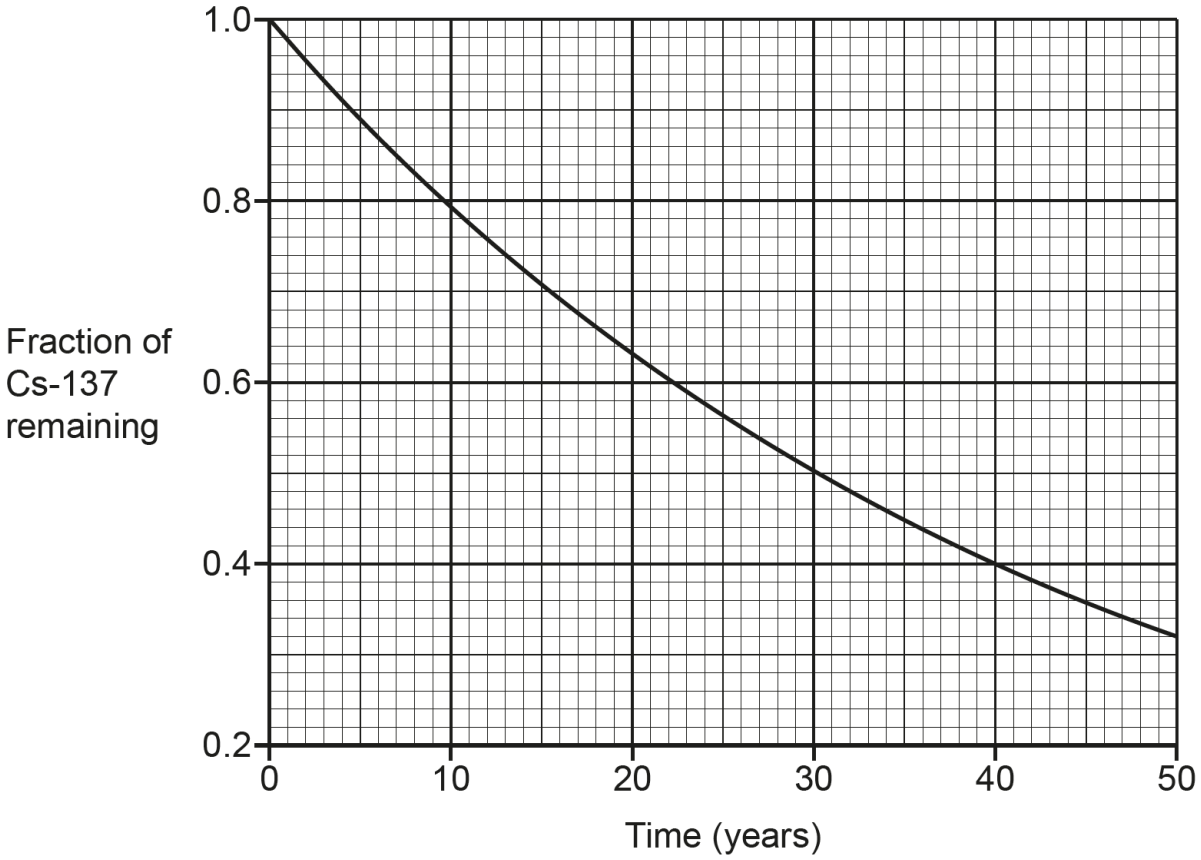
- If the activity per kilogram of sheep was greater than 1000 Bq/kg, the sheep were **contaminated**.
- In 1986, the activity per kg of some sheep was greater than 1600 Bq/kg.
- I-131 emits beta radiation.
- Cs-137 emits beta **and** gamma radiation.

The graphs show how the amount of I-131 and Cs-137 change with time:

Graph for I-131



Graph for Cs-137



.....

.....

.....

.....

.....

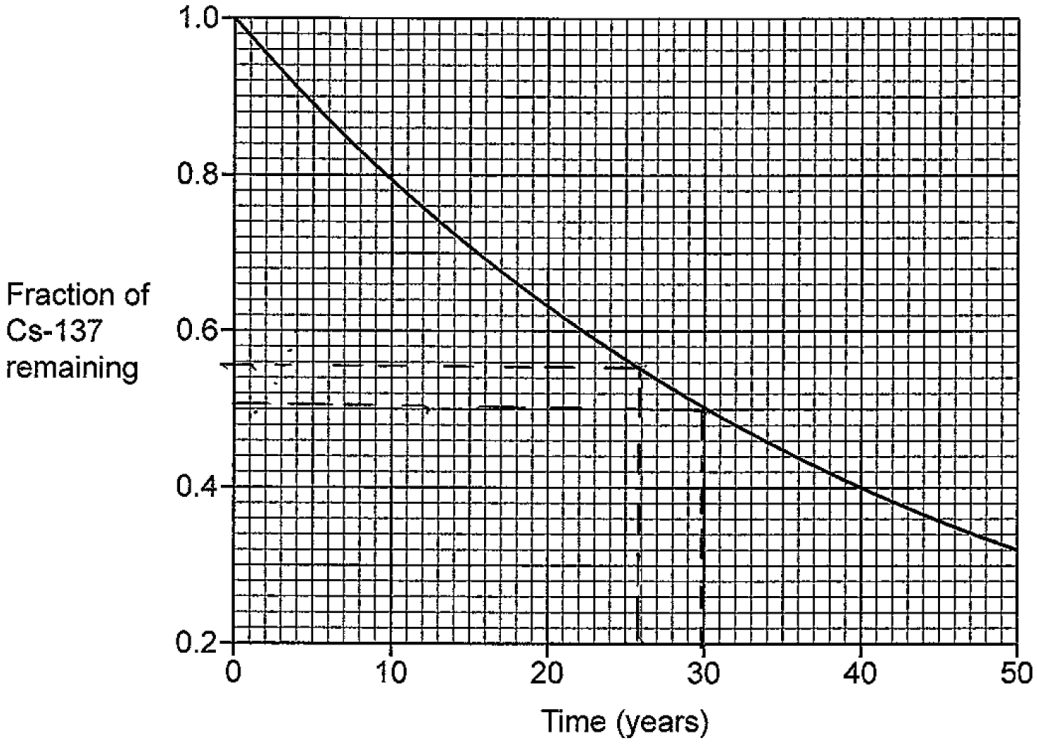
..... **[6]**

This is the level of response question. This question was attempted by the majority of candidates and the full range of the marks available were given. Many candidates gained marks for AO1.2 by demonstrating knowledge and understanding of half-life usually by calculating the half-life of I-131 and/or Cs-137.

Fewer candidates gained marks for AO3.1b and AO3.2a for analysing, evaluating and making a judgement about the graphs by comparing the two graphs.

Exemplar 3

Graph for Cs-137



Use the graphs to explain why the government stopped the movement of contaminated sheep for 26 years.

Use ideas about half-life and half-life calculations.

As I-131 has an extremely short half-life (~ 8 days), the amount of radioactive I-131 nuclei would be non-existent by 26 years, and would be much less than 1000 Bq/kg. For Cs-137, the half life is ~ 30 years. In this time, the activity per kg of sheep would be about 800 Bq/kg in 2016, from 1600 Bq/kg in 1986. However, in 26 years, by 2012, the government could estimate from the graph that 0.56 of the Cs-137 nuclei remains, 0.56 x 1600 = 896 Bq/kg, which is under 1000 Bq/kg. So it can be assumed that the sheep were not contaminated as badly anymore.

In this response, the candidate has broken their response down into a series of clear statements that cover all the requirements for AO1.2, AO3.1b and AO3.2a. The candidate used the graphs to calculate the half-life, with the dashed horizontal line at 0.5 fraction remaining and then a vertical line from the curve to read the time on the x axis and was able to obtain correct half-life readings.

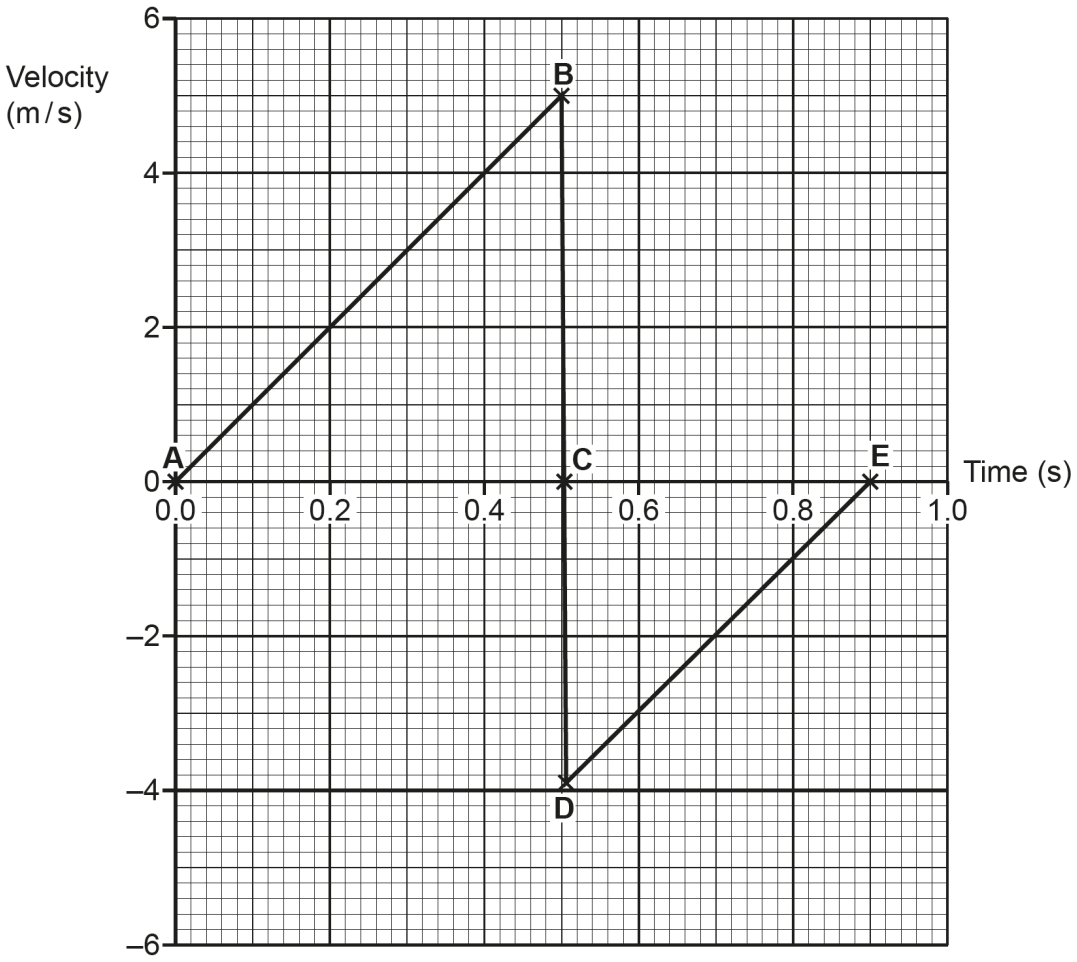
This is a good example of a response that meets all the criteria for Level 3 and was given 6 marks.

Question 16 (a) (i)

16 A student drops a ball onto a hard floor. The mass of the ball is 0.06 kg.

The ball bounces once and the student catches the ball.

The graph shows how the velocity of the ball changes after it is dropped.



(a) (i) State a point on the graph where the gravitational store of the ball has a minimum value.

Choose from **A**, **B**, **C**, **D** or **E**.

Answer = ... **[1]**

The majority of candidates selected a point on the graph where the gravitational store of the ball has a minimum value. The two most common responses were points B and C.

Question 16 (a) (ii)

(ii) State the point on the graph where the kinetic store of the ball has a maximum value.

Choose from **A**, **B**, **C**, **D** or **E**.

Answer = ... **[1]**

The majority of candidates selected point B on the graph where the kinetic store of the ball has a maximum value.

Question 16 (b)

(b) Calculate the kinetic energy of the ball at 0.4 seconds. Use the Data Sheet.

Kinetic energy = ... J **[3]**

The majority of candidates correctly calculated the kinetic energy of the ball at 0.4 seconds. These candidates usually wrote the equation used to calculate kinetic energy, KE = ½ mv^2, and then showed the steps in their calculation. These candidates used the mass of the ball as 0.06 kilograms but a few candidates tried to convert the mass to grams. Candidates who do not follow logical steps in a calculation often do not gain full marks. The most common error in this question was to use the time of 0.4 seconds rather than the mass in kilograms in the calculation.

Question 16 (c) (i)

(c) (i) Calculate the potential energy of the ball at **A**.

Use the graph and the equation:
potential energy = mass × height × gravitational field strength

Gravitational field strength = 10 N / kg.

Potential energy = ... J **[4]**

This question was not answered well and very few candidates gained more than 2 marks. Many candidates did not appreciate that the area under the graph represents the height. Many candidates wrote the equation, PE = mass x height x gravitational field strength, and then added a question mark or a 0 for the height.

Question 16 (c) (ii)

(ii) The potential energy of the ball at **E** is 0.45 J.

Calculate the efficiency of the ball bounce.
Use the Data Sheet and your answer to **(c)(i)**.

Efficiency = ... **[3]**

About a third of candidates were given all 3 of the available marks for this question. Some candidates just wrote the equation to calculate efficiency as efficiency = output ÷ input but then did not substitute the numbers. Some candidates did substitute numbers into the equation but these were often the wrong way round, 0.75 ÷ 0.45 instead of 0.45 ÷ 0.75. A few candidates tried to convert the efficiency to a percentage but then forgot to add the % sign.

Copyright information

Question 4 - Adapted diagram of a transformer

Question 6 - Diagram of a longitudinal wave

Question 10 - Adapted diagram of a CHP power station

Question 11 (b) - Adapted diagram of Immersion heater practical

Question 14 - Adapted diagram of a ripple tank

Question 15 - Picture of Chernobyl power plant

Question 15a - Siti Nur Ain Sulaiman et al 2018 IOP Conf. Ser.: Mater. Sci. Eng. 298 012011

Supporting you

Post-results services

If any of your students' results are not as expected, you may wish to consider one of our post-results services. For full information about the options available visit the OCR website.

Keep up-to-date

We send a weekly roundup to tell you about important updates. You can also sign up for your subject specific updates.
If you haven't already, sign up here.

OCR Professional Development

Attend one of our popular CPD courses to hear directly from a senior assessor or drop in to a Q&A session. Most of our courses are delivered live via an online platform, so you can attend from any location.

Please find details for all our courses on the relevant subject page on our website or visit OCR professional development.

Signed up for ExamBuilder?

ExamBuilder is the question builder platform for a range of our GCSE, A Level, Cambridge Nationals and Cambridge Technicals qualifications. Find out more.

ExamBuilder is **free for all OCR centres** with an Interchange account and gives you unlimited users per centre. We need an Interchange username to validate the identity of your centre's first user account for ExamBuilder.

If you do not have an Interchange account please contact your centre administrator (usually the Exams Officer) to request a username, or nominate an existing Interchange user in your department.

Active Results

Review students' exam performance with our free online results analysis tool. It is available for all GCSEs, AS and A Levels and Cambridge Nationals.

It allows you to:

- review and run analysis reports on exam performance
- analyse results at question and/or topic level
- compare your centre with OCR national averages
- identify trends across the centre
- facilitate effective planning and delivery of courses
- identify areas of the curriculum where students excel or struggle
- help pinpoint strengths and weaknesses of students and teaching departments.

Find out more.

Need to get in touch?

If you ever have any questions about OCR qualifications or services (including administration, logistics and teaching) please feel free to get in touch with our customer support centre.

Call us on
01223 553998

Alternatively, you can email us on
support@ocr.org.uk

For more information visit
ocr.org.uk/qualifications/resource-finder
ocr.org.uk
/ocrexams
/ocrexams
/company/ocr
/ocrexams

We really value your feedback

Click to send us an autogenerated email about this resource. Add comments if you want to. Let us know how we can improve this resource or what else you need. Your email address will not be used or shared for any marketing purposes.


I like this


I dislike this

Please note – web links are correct at date of publication but other websites may change over time. If you have any problems with a link you may want to navigate to that organisation's website for a direct search.