

Examiners' Report

June 2014

GCSE Chemistry 5CH2F 01

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk.

Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.



Giving you insight to inform next steps

ResultsPlus is Pearson's free online service giving instant and detailed analysis of your students' exam results.

- See students' scores for every exam question.
- Understand how your students' performance compares with class and national averages.
- Identify potential topics, skills and types of question where students may need to develop their learning further.

For more information on ResultsPlus, or to log in, visit www.edexcel.com/resultsplus. Your exams officer will be able to set up your ResultsPlus account in minutes via Edexcel Online.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk.

June 2014

Publications Code UG039991

All the material in this publication is copyright
© Pearson Education Ltd 2014

Introduction

This is the first 5CH2F examination since the GCSE course became linear, with all examinations taken at the end. There was a large increase in entries and the full-range of abilities were seen in the papers.

Successful candidates:

- read the questions carefully and answered them concisely
- had good subject knowledge that they could recall accurately
- used correct scientific terminology
- could write formulae and balanced equations
- could carry out calculations correctly
- were familiar with the practical techniques in the specification.

Less successful candidates:

- did not read the questions carefully and wrote answers related to the question but did not give the required answer
- wasted time by re-writing the question or by repeating the same point two or three times in their answer
- had not learnt the basic facts from the specification
- did not use correct scientific terminology
- could not write correct formulae or balanced equations
- could not carry out calculations
- were not familiar with simple laboratory equipment or techniques.

In future, candidates should carry out a variety of experiments from the specification and write up their experiments using the correct names for the apparatus they used. They should have more practice in writing formulae and balanced equations and in carrying out the calculations from the specification.

Question 1 (b) (i)

The majority of candidates knew that argon can be used to put out fires because it is non-flammable.

Question 1 (b) (ii)

The majority of candidates knew that helium is used in airships because it has a low density.

Question 1 (c) (i)

It was disappointing that not many candidates knew the appearance of chlorine at room temperature. The appearance of bromine and iodine were given as a colour and a physical state and there were 2 marks for this question, so candidates should also have given the appearance of chlorine as a colour and a physical state. A common incorrect answer was that chlorine is a blue liquid, showing that candidates were probably confused with the use of chlorine in swimming pools. Candidates would benefit from being shown a gas jar of chlorine.

halogen	appearance at room temperature
chlorine	gas.
bromine	dark red liquid
iodine	grey solid



ResultsPlus
Examiner Comments

This candidate scored 1 mark for gas.



ResultsPlus
Examiner Tip

If you are given some information in a question, try to see if there is a pattern and answer in a similar way. In this question, the appearances of bromine and iodine are described with a colour and a physical state. The appearance of chlorine should also include the colour and physical state.

halogen	appearance at room temperature
chlorine	Green gas
bromine	dark red liquid
iodine	grey solid



ResultsPlus
Examiner Comments

This is an example of an answer that scored 2 marks as it includes the correct colour and physical state for chlorine.

Question 1 (c) (ii)

The majority of candidates could write the correct word equation.

Some candidates decided to attempt to write a balanced equation, but credit was only given if this was completely correct. Symbols such as H or Cl should not be used for hydrogen and chlorine gas. Candidates are advised to write word equations when they are asked to do so in a question.

Some candidates also lost marks by writing CL as the symbol for chlorine and others changed the product to hydrochloric acid, hydrochloride or hydrogen chloride.

Hydrogen + chlorine → hydrogen chloride



ResultsPlus
Examiner Comments

This answer scores 1 mark for hydrogen + chlorine. The candidate has written the name of the product as hydrogen chlorine, which is incorrect.



ResultsPlus
Examiner Tip

Copy the names of chemicals carefully from the question.



ResultsPlus Examiner Comments

This candidate tried to write a balanced equation, but the formulae are incorrect so no marks were given.



ResultsPlus Examiner Tip

If a question asks for a word equation, do not try to write a balanced equation.



ResultsPlus Examiner Comments

This is an example of a correct word equation, scoring 2 marks.

Question 2 (a) (ii)

Many candidates could write the symbol for an element in the same period as beryllium. However, a significant number of candidates were confused between a group and a period and they wrote Mg or Ca as their answer.

Question 2 (b) (i)

A significant number of candidates were unable to work out the numbers of protons, electrons and neutrons in an atom of beryllium. Candidates should learn how to work out the numbers of protons, electrons and neutrons in an atom from the atomic and mass numbers.

Question 2 (c)

The majority of candidates were able to relate the group number to the number of electrons in the outer shell. Only a small number of candidates referred to proton, neutrons or atoms in the outer shell. Some candidates just referred to 'it has 5 at the end of the configuration' without explaining what the 5 refers to. Only a few candidates wrote about the similar properties of elements in the same group.

Phosphorus is in group 5 of the periodic table because it has a ~~bigger~~ bigger relative atomic mass number.



ResultsPlus
Examiner Comments

This answer did not score any marks as it did not refer to electrons or outer shell.



ResultsPlus
Examiner Tip

Read the information given in the question. The electronic configuration of phosphorus is given as 2.8.5. The question asks you to use this electronic configuration in your answer.

phosphorus is in group⁽²⁾ 5 because it has 5 neutrons on its outer shell.



ResultsPlus
Examiner Comments

This answer scored 1 mark for writing about the outer shell. Neutrons are in the nucleus of an atom. There was a clue in the question. Electronic configuration is the arrangement of **electrons** in an atom.



ResultsPlus
Examiner Tip

Learn the positions of the particles in an atom.

Because phosphorus has 5 electrons in its outer shell.



ResultsPlus
Examiner Comments

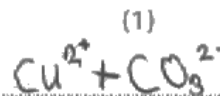
This is a good answer, scoring 2 marks.

Question 3 (b)

A significant number of candidates were unable to use the information about solubility to work out the correct state symbols for copper carbonate and sodium nitrate. It was not unusual to see (g) given as a state symbol.

Question 3 (c)

Many candidates were able to work out the correct formula for copper carbonate. Some candidates wrote the formula as $\text{Cu}^{2+} + \text{CO}_3^{2-}$ and they did not score a mark as this just shows the symbols of the two separate ions.



ResultsPlus
Examiner Comments

This candidate has written the symbols of the ions with a '+' sign in the middle and does not score a mark.



ResultsPlus
Examiner Tip

Practise working out formulae of compounds from the symbols of their ions.



ResultsPlus
Examiner Comments

This is an example of a correct answer, scoring 1 mark.

Question 3 (d)

It was disappointing to see that many candidates were not familiar with this practical procedure.

Some candidates started by describing how to make the mixture but this was not necessary. Some candidates started by heating to evaporate the water and did not realise that the other salt would be left with the lead iodide. Some realised that filtering is necessary to separate a solid from a solution, but a significant number described the use of a separating funnel instead of a funnel and filter paper. Many also just mentioned using filter paper without a funnel or used a funnel without filter paper. It was often unclear about where the lead iodide was after filtering. Very few candidates described washing the solid in the filter paper to purify it. Many candidates did not describe a method of drying the solid.

If you was to use heat up the mixture and then pour it down a separating funnel it would then get rid of the salt and be left with the sample of solid lead iodide.



ResultsPlus
Examiner Comments

Separating funnels were seen quite frequently in answers to this question. This did not score a mark.



ResultsPlus
Examiner Tip

Use a separating funnel to separate a mixture of immiscible liquids.

Use a funnel and filter paper to separate a solid from a solution.

10/1
A ~~the~~ pure dry sample can be obtained by filtering ^{the lead iodide} ~~it~~, using filter paper and a funnel, then using distilled water to ^{wash it and} remove any impurities then leave the substance to dry.



ResultsPlus
Examiner Comments

This is an example of a good answer and it scored 3 marks.

Question 3 (e) (i)

Some candidates were able to identify potassium ions from the lilac colour of the flame. Candidates should learn the flame test colours in the specification.

Question 3 (e) (ii)

It was disappointing to see that only a small minority of candidates were able to identify chloride ions in the salt from the description of the test and the result. A few candidates gave the name of the salt instead of the ion. Many candidates just selected a random element to fill the space, with the majority of answers being metals. Candidates should carry out the tests for ions in the specification and learn the tests and results.

ion in salt X ~~potassium~~
chloride



ResultsPlus
Examiner Comments

This candidate did not score a mark for potassium chloride as the question asked for the identity of the **ion** in the salt that produced the white solid. Only the chloride ions react with silver nitrate to produce a white solid.

**ResultsPlus**
Examiner Comments

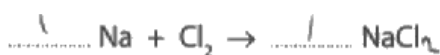
This is an example of a correct answer that scored 1 mark.

**ResultsPlus**
Examiner Tip

Learn the tests for the ions in the specification.

Question 4 (a) (i)

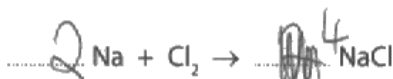
The majority of candidates were able to balance the equation. A common error was to put 2 in front of Na and 4 in front of NaCl. It was surprising to see some candidates using negative numbers in the equation. A few candidates put formulae or state symbols on the dotted lines instead of balancing numbers. Some candidates changed the formulae to balance the equation.

**ResultsPlus**
Examiner Comments

This candidate has changed the formula of sodium chloride to NaCl₂. If you are given an equation to balance, the formulae will always be correct and you need to balance the equation by putting numbers in front of the formulae in the spaces provided. This answer did not score any marks.

**ResultsPlus**
Examiner Tip

Do not change any formulae you are given in a question to balance an equation.



(4)



ResultsPlus

Examiner Comments

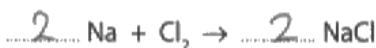
This candidate has the first balancing number correct, so scores 1 mark.



ResultsPlus

Examiner Tip

Count up the number of atoms on the left side of the equation first. There are 2 sodium atoms and 2 chlorine atoms. The number of atoms on the right of the equation must be the same as on the left. The equation is balanced by writing a 2 in front of NaCl.



ResultsPlus

Examiner Comments

This is an example of a correct answer that scored 2 marks.

Question 4 (a) (ii)

Many candidates were able to calculate the percentage yield. Some candidates divided 4.0 by 2.5 then multiplied by 100 to get a yield of 160%. They should realise that the yield cannot be higher than 100%. Candidates should show their working for calculations so that they have the opportunity to gain a consequential error mark if they have the final answer wrong.

- (ii) In an experiment to make sodium chloride, the yield is 2.5 g.
The theoretical yield of sodium chloride for this experiment is 4.0 g.
Calculate the percentage yield of sodium chloride in this experiment.

$$\frac{TY}{AY} \times 100 =$$

(2)

$$\frac{4.0}{2.5} \times 100 = 160$$

percentage yield = 160 %



ResultsPlus

Examiner Comments

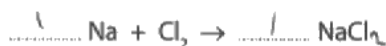
This answer is incorrect, but it scored 1 mark for some correct working. The first step is wrong as the candidate should have divided 2.5 by 4.0. The candidate has then shown their fraction multiplied by 100 to obtain the percentage and they score a consequential mark.



ResultsPlus

Examiner Tip

Always show your working for calculations.



ResultsPlus

Examiner Comments

This is an incorrect answer and it scored no marks. If some working had been shown, it might have scored 1 mark for correct working, even if the final answer is wrong.



ResultsPlus

Examiner Tip

Show your working for all calculations.

$$2.5 \div 4 = \frac{5}{8} \times 100 = 62.5$$

percentage yield = 62.5 %



ResultsPlus Examiner Comments

This is a very good answer, showing the correct working and answer. This scored 2 marks.

Question 4 (a) (iv)

The majority of candidates could work out the relative formula mass for sodium chloride. Some candidates multiplied the relative atomic masses and a few subtracted or divided them.

(iv) Calculate the relative formula mass of sodium chloride, NaCl.

(relative atomic masses: Na = 23, Cl = 35.5)

$$46 + 35.5 = 81.5$$

(1)

$$23 + 23 + 35.5 = 81.5$$

relative formula mass = ~~81.5~~
81.5



ResultsPlus Examiner Comments

This candidate has assumed the formula for sodium chloride is Na_2Cl as they have added the relative atomic mass of two sodium atoms to one chlorine atom. This did not score the mark.



ResultsPlus Examiner Tip

Use the formula given in the question. NaCl contains one sodium and one chlorine atom.

$$23 + 35.5 = 58.5$$

relative formula mass = 58.5



ResultsPlus

Examiner Comments

This is an example of a correct answer, with the working shown. This scores 1 mark.

Question 4 (b)

Many candidates were able to calculate the percentage of magnesium in magnesium sulfate.

Some candidates tried to calculate the relative formula mass for magnesium sulfate and got a different answer to the value given in the question.

$$\frac{16 + 24 + 32}{120} \times 100 = 66.66$$

percentage of magnesium = 66.666667 %



ResultsPlus

Examiner Comments

This candidate has got the first step of the calculation wrong as they should have just divided the mass of magnesium (24) by 120. However, they have then multiplied their fraction by 100, so they score 1 mark.



ResultsPlus

Examiner Comments

Show your working in calculations.

$$\frac{24}{120} \times 100 = 20\%$$

percentage of magnesium = 20 %



ResultsPlus Examiner Comments

This candidate has given correct working and has the correct answer so was awarded 2 marks.

Question 4 (c) (i)

Very few candidates understood the term 'empirical formula', so they were unable to score a mark for this question. A common incorrect answer was CH₈.

1:3



ResultsPlus Examiner Comments

This candidate has correctly worked out that the simplest ratio of carbon to hydrogen is 1:3, but they did not score a mark as the question asked for the empirical formula.

The empirical formula shows the simplest whole number ratio of atoms in the formula. The correct empirical formula for ethane is CH₃.

Question 4 (c) (ii)

This question was designed to be answered correctly by the candidates working at the top end of the grade range for this paper and it achieved that aim. The concept of weak intermolecular forces between molecules was only given by the more able candidates. Many candidates wrote about the weak bonds between the atoms but a large number did not refer to bonds at all and wrote about few particles that are far apart in a gas.

Examiners were surprised to see some candidates writing about hydrogen bonds. There are no hydrogen bonds between ethane molecules and we would not expect candidates to know about specific intermolecular forces at GCSE.

In terms of particles Ethane contains a small amount of atoms. These atoms are weakly joined with each other and neighbouring atoms meaning it is easier to break the bonds to form a gas.



ResultsPlus

Examiner Comments

This answer did not score a mark as it referred to the bonds between atoms being weak.

The bonds between atoms are strong but the forces between molecules are weak.

Ethane has a low boiling point as the ^{particles} ~~bonds~~ are held together by weak forces, therefore low boiling point is needed as it doesn't require massive amount of energy/heat in order to break them. (2)



ResultsPlus

Examiner Comments

This is an excellent answer that scored 2 marks.



ResultsPlus

Examiner Tip

Try to remember that the covalent bonds that hold the atoms together in molecules are strong. There are just weak forces between the molecules.

Question 5 (a) (i)

It was disappointing to see few candidates who understood that the dots in the diagram of diamond represented carbon atoms. There were many incorrect answers, including electrons and bonds.

Question 5 (a) (ii)

The majority of candidates did know that diamond has covalent bonding.

Question 5 (b)

Some candidates knew that fractional distillation is used to obtain oxygen from liquid air, but there were a lot of different incorrect answers including evaporation, oxidation, condensation, separation, respiration and photosynthesis.

Seperation



ResultsPlus
Examiner Comments

Oxygen is obtained using a separation technique, but this did not score a mark as the specific separation process was required.



ResultsPlus
Examiner Tip

Learn the different processes that are used to separate the different types of mixtures in the specification.

Distillation



ResultsPlus
Examiner Comments

This candidate scored 1 mark for distillation.

Fractional distillation allows you to obtain oxygen from liquid air.



ResultsPlus

Examiner Comments

This is an example of a correct answer that scored 2 marks.

Question 5 (d)

This question produced a good spread of marks. It could be answered at different levels from a simple description of an experiment to burn magnesium up to a detailed account of what happens to magnesium and oxygen atoms when they react. However, it was only possible to achieve level 3 if some description of the bonding was included in the answer. It was encouraging to read many excellent answers explaining the bonding in magnesium oxide. Some of the best answers included the use of dot and cross diagrams to explain the bonding.

Unfortunately some candidates were confused about the bonding. The question stated that magnesium oxide is an ionic compound but some candidates included sharing electrons, molecules or covalent bonding in their answers. These candidates received a maximum of 4 marks for their answer.

Because the outer shell of magnesium atom isn't full it will react with the oxygen atom this process is called covalent bonding. ~~that they form~~ ~~the~~

The result in this reaction is magnesium oxide.



ResultsPlus

Examiner Comments

This answer did not score any marks. The candidate has the idea that the magnesium atom doesn't have a full outer shell, but that is not quite enough for a mark. If the candidate had added that magnesium has 2 electrons in the outer shell, it would have scored marks.

When magnesium is heated up it reacts with oxygen from the air to form MgO . While they form MgO . Magnesium and oxygen share the electrons to fill in the ^{outer} shells. This is going to cause a reaction as now the outer shell is full.



ResultsPlus

Examiner Comments

The first sentence in this answer is just repeating information in the question so it does not receive any credit.

Although this candidate mentioned covalent bonding, which is incorrect, they were given credit for the idea that the outer shells are full. This is a level 1 answer and scored 2 marks.

First of all you should wear safety goggles and if you are a girl tie your hair back to avoid your hair becoming singed from a burner burner. By using a pair of tongs you can pick up a magnesium ribbon and heat it. As you heat the ribbon the temperature increases causes the magnesium ~~phases~~ atoms to have a lot of energy. These 2 different elements then react with each other through covalent bonding because it is a strong bond between ~~to~~ 2 non metals. These atoms share electrons to create a full outer shell.



ResultsPlus

Examiner Comments

This candidate has given a good description of the experiment to react magnesium with oxygen. However, they have then written about covalent bonding, which is incorrect. This is a level 2 answer, scoring 4 marks.



ResultsPlus

Examiner Tip

Read the information in the question carefully. If you are told that a substance has ionic bonding, don't write about covalent bonding in your answer.

you could use a sealed glass cylinder with a lid which contains oxygen. Heat the ribbon and lower it into the jar with a spatula via the lid. To seal the lid and MgO is formed. The magnesium atom transfers two electrons from its outer shell to the oxygen atom to both gain a full outer shell. The magnesium then becomes positive and the oxygen now becomes negative.



ResultsPlus

Examiner Comments

This is a good level 3 answer that scored 6 marks. The candidate has written a description of an experiment to burn magnesium in oxygen and has given a detailed explanation of how magnesium and oxygen atoms form ions.

Question 6 (a) (i)

Many candidates stated that the temperature increased, although quite a few skipped that statement and stated that heat is released. Some candidates did not then link that to an exothermic reaction.

There was quite a lot of confusion between exothermic and endothermic reactions when the temperature rises and many contradictory statements were seen, for example 'the temperature increased so the reaction takes in heat'. Many candidates are unclear about the difference between heat and temperature and it was not unusual to see statements such as 'the heat increased by 26°C '.

(2)

This is an ^{endothermic} ~~exothermic~~ reaction. Heat energy has been absorbed by the ~~system~~ reaction.



ResultsPlus
Examiner Comments

This candidate knows the meaning of endothermic but unfortunately this is the wrong answer to this question so no mark was scored.

It is an endothermic reaction and so the temperature increases by 26°C



ResultsPlus
Examiner Comments

This candidate has stated that the temperature has increased, so scores 1 mark. Unfortunately they have mixed up the meaning of exothermic and endothermic.



ResultsPlus
Examiner Tip

Learn the difference between exothermic and endothermic reactions.

(2)

The temperature has risen from 20°C to 46°C showing this is an exothermic reaction which means heat is released into the atmosphere which is why it gets hotter.



ResultsPlus

Examiner Comments

This is a very good answer that scored 2 marks. The candidate has written about the temperature change and linked this to an exothermic reaction.

Question 6 (a) (ii)

Many candidates were able to complete the equation for the reaction with the correct formulae. Some candidates completed the equation as a word equation and received no credit.

Some candidates would benefit from more practice in writing balanced equations.



ResultsPlus

Examiner Comments

This candidate has written the names of the substances formed and scored no marks. If a question asks for formulae, you will not receive any marks for a word equation.



ResultsPlus

Examiner Tip

Practise writing balanced equations.



ResultsPlus

Examiner Comments

This candidate has scored 1 mark for the correct formula for zinc sulfate. ZnCu is incorrect. Look at the information given in the question. The start of this question states that zinc sulfate and copper are formed.



ResultsPlus

Examiner Comments

This is an example of a correct equation that scored 2 marks.

Question 6 (b)

There were some excellent answers to this question. However, some candidates are confused between rate and time and wrote about time getting quicker rather than shorter. Some candidates just described the pattern in the graph and they scored 1 mark. Other candidates knew that the rate increases as the concentration increases and they also scored a mark. A common incorrect answer was that the rate decreases as the concentration increases as they had not realised that the graph was a plot of time against concentration.

The more concentration of hydrochloric acid increased the less time taken for the magnesium to react.



ResultsPlus

Examiner Comments

This answer scored 1 mark as it gives a clear description of the pattern shown in the graph.



ResultsPlus

Examiner Tip

Use the labels on the axes of the graph to help you to describe the pattern shown.

As ~~more~~ the concentration of hydrochloric acid increases, the time taken for the magnesium to react gets quicker.



ResultsPlus

Examiner Comments

This candidate has confused rate and time so has not scored a mark.

Try to understand the difference between rate and time. As the time taken for a reaction to take place decreases, the rate of reaction increases.

The amount of time gets shorter as the amount of hydrochloric acid increases. The rate of reaction gets quicker.



ResultsPlus

Examiner Comments

This is a correct answer and scored 2 marks.

Question 6 (c)

Some candidates gave excellent experimental details of how to investigate the effect of using different size marble chips on the rate of reaction, showing that they had carried out these experiments. Some candidates tried to describe an experiment of adding the marble chips to a beaker of hydrochloric acid but they gave no indication of how they could measure the volume of gas produced, the mass loss or time for limewater to go milky. Some candidates seemed unfamiliar with this type of experiment but they gave good descriptions of the results they would expect and they received some credit for this. Some candidates were unfamiliar with the idea of a fair test and thought that they could investigate the rate by comparing one large chip and one small chip or use different masses of marble chips. A common misunderstanding was that smaller marble chips have a smaller surface area so they react faster. A few candidates thought that the marble chips were acting as a catalyst. Some candidates spent time writing about other factors that affect the rate of reaction but that was not needed in this question.

(6)
Using smaller marble chips means that there will be more particles colliding meaning that the rate of reaction will increase producing the carbon dioxide gas a lot more quicker and efficiently



ResultsPlus

Examiner Comments

This is an example of a level 1 answer that scored 2 marks. The candidate has not described the experiments but does know that smaller marble chips will increase the rate of reaction.



ResultsPlus

Examiner Tip

Revise the experiments that you have carried out or seen demonstrated to you so that you can describe them.

Using smaller marble chips, means that there is a larger surface area. When you have a larger surface area, it means that the particles of the hydrochloric acid are more likely to collide with the smaller marble chips than the large marble chips, as the large marble chips have a smaller surface area. With more particles colliding with the marble chips, the faster the rate of ~~the reaction~~ the reaction will happen. If you have a small surface area, the particles will not collide with the marble as frequently, therefore creating the rate of the reaction happen slower.



ResultsPlus

Examiner Comments

This is an example of a level 2 answer that scored 4 marks. The candidate has explained that the smaller marble chips have a larger surface area so the reaction will be faster. However, they have not described an experiment so they cannot achieve level 3.

You will only achieve the highest level if you answer the question and include a description of the experiments.

get a test tube.
At the start of the experiment, use ordinary size marble chips and add them to dilute hydrochloric acid. When the chips have been put into the acid, use a stop watch to time how long it takes for carbon dioxide to be produced. When all of the carbon dioxide has been produced, the bubbles would have stopped. Repeat this experiment for the smaller marble chips. You should find that the smaller marble chips will produce carbon dioxide much faster than the regular marble chips.



ResultsPlus
Examiner Comments

This is an example of a level 3 answer that scored 6 marks. The answer gives a description of two experiments and the results that would be expected.

Paper Summary

In order to improve their performance, candidates should:

- Learn the basic facts from the specification
- Read the questions carefully to make sure that they answer the question being asked
- Carry out more practical work and practise writing up the experiments
- Practise writing formulae and equations
- Practise the calculations in the specification
- Not re-write the questions
- Not repeat the same point in their answer.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>

Ofqual



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



Pearson Education Limited. Registered company number 872828
with its registered office at Edinburgh Gate, Harlow, Essex CM20 2JE