

Examiners' Report/ Principal Examiner Feedback

November 2009

IGCSE

IGCSE Science (Double Award)(4437) Paper 3F

Edexcel is one of the leading examining and awarding bodies in the UK and throughout the world. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers.

Through a network of UK and overseas offices, Edexcel's centres receive the support they need to help them deliver their education and training programmes to learners.

For further information please call our Customer Services on + 44 1204 770 696, or visit our website at www.edexcel.com.

If you have any subject specific questions about the content of this Examiners' Report that require the help of a subject specialist, you may find our **Ask The Expert** email service helpful.

Ask The Expert can be accessed online at the following link:

<http://www.edexcel.com/Aboutus/contact-us/>

Alternately, you can speak directly to a subject specialist at Edexcel on our dedicated Science telephone line: 0844 576 0037

(If you are calling from outside the UK please dial + 44 1204 770 696 and state that you would like to speak to the **Science** subject specialist).

November 2009

Publications Code UG022407

All the material in this publication is copyright

© Edexcel Ltd 2009

Question 1

In part (a) either 'friction' or 'gravity' was seen. In (b)(i) GPE and KE were often seen the wrong way round although (ii) and (iii) were often correct.

Question 2

Hooke's law was not always identified and hardly ever written out correctly. However (b)(iii) on plastic behaviour was well answered.

Question 3

Mostly candidates could not identify the electrical components in this question and so had little idea how to change the resistance of an LDR. 'Change the current' was a common answer.

Question 4

Candidates showed a reasonable knowledge of waves often scoring three or four marks on this question.

Question 5

Many candidates scored well on this question about the use of parts of the electromagnetic spectrum with little crossing out seen.

Question 6

Hardly any candidates thought that all six sources could be used for electricity generation though most suggested four or five. The rest of the question was well answered.

Question 7

Candidates showed a very poor knowledge of the structure of the atom appearing to insert the words from the box in a random fashion.

Question 8

The type of question in (a) is rarely answered well and this was no exception. The arrow from the centre of gravity either did not appear or was drawn horizontally. The calculation was well done with some correctly following the instruction to give the answer to the nearest whole number.

Question 9

Some candidates failed to mention that when the fuse wire melts this breaks the circuit. The calculation was well done with many candidates scoring all three marks in (b). Candidates were less sure about the choice of fuse in (c). A wide variety of answers, such as electric kettle, were acceptable in part (d).

Question 10

Most candidates did not have sufficient understanding to score well on this question. Some were able to name a source of background radiation other than cosmic rays. In part (b) the idea that, in space, there would not be any molecules to interact with alpha particles was not understood. The graph work was disappointing and generally the idea of 'half-life' was not known.

Question 11

Part (a), where three marks were awarded for the definition of work done, rarely scored well with 'velocity' often appearing in the first gap. The calculations were well done.

Question 12

Part (a) was poorly answered and in (b) a mark was occasionally scored for 'rising' in a description of convection.

SCIENCE (DOUBLE AWARD) 4437, GRADE BOUNDARIES

Option 1 : with Paper 7 (Biology) & Paper 8 (Chemistry)

	A*	A	B	C	D	E	F	G
Foundation Tier				52	42	32	23	14
Higher Tier	76	65	54	44	35	30		

Option 2 : with Paper 7 (Biology) & Paper 9 (Physics)

	A*	A	B	C	D	E	F	G
Foundation Tier				52	42	32	23	14
Higher Tier	76	65	54	43	35	31		

Option 3 : with Paper 8 (Chemistry) & Paper 9 (Physics)

	A*	A	B	C	D	E	F	G
Foundation Tier				53	43	33	24	15
Higher Tier	N/A	N/A	N/A	N/A	N/A	N/A		

No candidates at higher tier entered so there are no grade boundaries for this category.

Option 4: with Coursework (Paper 10)

	A*	A	B	C	D	E	F	G
Foundation Tier				N/A	N/A	N/A	N/A	N/A
Higher Tier	N/A	N/A	N/A	N/A	N/A	N/A		

No candidates entered coursework so there are no grade boundaries for this option.

Note: Grade boundaries may vary from year to year and from subject to subject, depending on the demand of the question paper.

Further copies of this publication are available from
International Regional Offices at www.edexcel.com/international

For more information on Edexcel qualifications, please visit www.edexcel.com
Alternatively, you can contact Customer Services at www.edexcel.com/ask or on + 44 1204 770 696

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: One90 High Holborn, London, WC1V 7BH