

Examiners' Report/ Principal Examiner Feedback

June 2010

GCSE

360Science

GCSE Additional Science
Multiple Choice Paper P2 (5019)

GCSE Physics
Multiple Choice Paper P2 (5047)

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 GCE line on 0844 576 0025, our GCSE team on 0844 576 0027, 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

June 2010

Publications Code UG023404

All the material in this publication is copyright

© Edexcel Ltd 2010

5019 Additional Science/ 5047 Physics Examiners' Report
Multiple Choice paper P2
June 2010

Foundation tier

Overall the performance of candidates in the first 16 questions showed that they had been well prepared for the examination. In 11 out of the first 16 questions over 50% of candidates opted for the correct response.

The mean for the Foundation tier was about average for this series.

Candidates generally displayed a very good understanding of forces and motion but worryingly, 34% thought that using a mobile phone would decrease a driver's stopping distance.

Candidates are still having an uphill struggle with potential energy. Only 35% correctly equated the highest point on a roller coaster ride to maximum gravitational potential energy whereas 74% correctly identified the main energy transfer as GPE to KE on a downhill section of the ride.

Candidates generally seemed well prepared for questions on radiation but only 40% correctly identified beta radiation as being able to pass through paper but is stopped by a few cm of aluminium.

Candidates generally performed well on static electricity but almost 50% thought that an object is positively charged when it gains electrons.

Overlap Questions

Common questions differentiated well between Foundation and Higher tier candidates, and most discriminated well between weak and strong candidates.

Candidates showed a good understanding of acceleration and work done but a disappointing number (18% F tier, 39% H tier) failed to recall that both magnitude and direction are required to define a velocity.

Candidates were well prepared to answer questions on radioactivity and its uses, but many found the question on half life difficult.

Higher tier

Candidates once again showed that they had been well prepared for the examination with over 50% of candidates identifying the correct response in 9 out of the last 16 questions.

The mean for the Higher tier was about average for this series.

Candidates had been well prepared for questions on nuclear power, radioactivity, rockets and satellites. The only disappointment was that just 18% of candidates

realised that when the resultant force on a rocket is downwards its acceleration must also be downwards.

Grade Boundaries - June 2010

Multiple Choice Papers - GCSE Additional Science

Raw Mark Grade Boundaries

5015/5027	Max mark	A*	A	B	C	D	E	F	G
H	24	21	19	17	16	13	11		
F	24				17	14	11	9	7

5017/5037	Max mark	A*	A	B	C	D	E	F	G
H	24	19	17	13	10	7	5		
F	24				16	13	11	9	7

5019/5047	Max mark	A*	A	B	C	D	E	F	G
H	24	19	16	14	12	8	6		
F	24				16	13	10	8	6

Uniform Mark Grade Boundaries for these units

	Max UMS	A*	A	B	C	D	E	F	G
H	40	36	32	28	24	20	18		
F	27				24	20	16	12	8

Note: On higher tier papers, the "allowed" grade E is calculated as half a grade width

Structured Papers - GCSE Additional Science

Raw Mark Grade Boundaries

5016/5028	Max mark	A*	A	B	C	D	E	F	G
H	30	20	16	12	9	6	4		
F	30				18	15	12	10	8

5018/5038	Max mark	A*	A	B	C	D	E	F	G
H	30	20	15	11	7	5	4		
F	30				18	15	12	10	8

5020/5048	Max mark	A*	A	B	C	D	E	F	G
H	30	20	18	14	11	8	6		
F	30				19	16	14	12	10

Uniform Mark Grade Boundaries for these units

	Max UMS	A*	A	B	C	D	E	F	G
H	40	36	32	28	24	20	18		
F	27				24	20	16	12	8

Note: On higher tier papers, the "allowed" grade E is calculated as half a grade width

Biology, Chemistry and Physics Extension Papers

Raw Mark Grade Boundaries

5029	Max mark	A*	A	B	C	D	E	F	G
	60	48	43	38	34	29	24	20	16

5039	Max mark	A*	A	B	C	D	E	F	G
	60	55	49	42	36	30	25	20	15

5049	Max mark	A*	A	B	C	D	E	F	G
	60	50	44	38	32	26	20	15	10

Uniform Mark Grade Boundaries for these units

Max UMS	A*	A	B	C	D	E	F	G
120	108	96	84	72	60	48	36	24

Further copies of this publication are available from
Edexcel Publications, Adamsway, Mansfield, Notts NG18 4FN

Telephone 01623 467467
Fax 01623 450481

Email publications@linneydirect.com

Order Code UG023404 June 2010

For more information on Edexcel qualifications, please visit www.edexcel.com/quals

Edexcel Limited. Registered in England and Wales no.4496750
Registered Office: 190 High Holborn, London WC1V 7BH