

Examiners' Report/ Principal Examiner Feedback

November 2010

GCSE

360Science

GCSE Additional Science
Multiple Choice Paper P2 (5019)

GCSE Physics
Multiple Choice Paper P2 (5047)

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Publications Code UG025772

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Foundation Tier

Overall the performance of candidates in the first 16 questions showed that they had been well prepared for the examination. In 10 out of the first 16 questions over 50% of candidates opted for the correct response.

Candidates generally displayed a very good understanding of forces and motion but only 35% recognised that a decrease in grip between the tyres and the road would increase a driver's stopping distance.

The uphill battle with potential energy seems to be improving with almost 50% of foundation tier candidates correctly equating the highest point on a log flume ride to maximum gravitational potential energy.

Candidates generally seemed well prepared for questions on radioactivity.

Candidates generally performed well on static electricity but almost 50% thought that two balloons would attract if they had the same charge.

Almost 90% of candidates could identify constant speed on a speed/time graph but, only 30% recognised what was meant by conservation of energy.

Overlap Questions

Common questions differentiated well between foundation and higher tier candidates and most discriminated well between weak and strong candidates.

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

Candidates showed a good understanding of acceleration and forces but a disappointing number (over 80% on F tier, over 70% on H tier) failed to ignore lines that showed weight of a skydiver starting at zero.

Calculating the work done by a force proved to be reasonably straightforward for most candidates and shows that candidates have been well prepared for this type of question.

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 10 out of the last 16 questions.

Candidates had been well prepared for the questions on radiation, nuclear power, forces and motion and work, energy and power. The only disappointment was that just 15% of candidates realised that when both mass and velocity are doubled an object's kinetic energy will be eight times greater.

Centres have prepared candidates well for the higher tier of this paper.

Grade Boundaries - November 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	22	19	16	14	11	9		
F	24				18	15	13	11	9

5017/5037	Max mark	A*	A	B	C	D	E	F	G
H	24	19	16	13	10	8	7		
F	24				15	12	10	8	6

5019/5047	Max mark	A*	A	B	C	D	E	F	G
H	24	21	18	15	12	10	9		
F	24				16	13	11	9	7

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	19	16	13	10	7	5		
F	30				18	15	12	10	8

5018/5038	Max mark	A*	A	B	C	D	E	F	G
H	30	22	18	14	10	7	5		
F	30				17	13	10	7	4

5020/5048	Max mark	A*	A	B	C	D	E	F	G
H	30	20	17	14	11	8	6		
F	30				18	14	11	8	5

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

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