

Examiners' Report/ Principal Examiner Feedback

March 2011

GCSE

360Science

GCSE Science

Multiple Choice Paper B1a (5005/01)

GCSE Biology

Multiple Choice Paper B1a (5025/01)

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5005 Science/ 5025 Biology (B1a) Examiners' Report

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Foundation Tier

The paper performed well overall, with the majority of candidates able to access the questions at the correct level. While foundation tier candidates were able to access simple questions about food chains and predator- prey relationships it was disappointing to note that only 45% of them were able to answer the question based on pyramids of biomass. As is to be expected over 80% of candidates can now correctly describe the structure of chromosomes and where they are found in the cell, although only 37% of foundation tier candidates could correctly recognise that human genes were mapped by the human genome project. As frequently mentioned in the past the problems with classification and genus and species remain a problem especially with foundation tier candidates, with only 23% of them able to correctly recognise the Genus of an organism. The use of the terms haploid and diploid also proved to be problematic; these are glossary words and therefore all students should be aware of them. The crossover questions performed well with foundation tier candidates on average scoring 25% less on these questions than higher tier candidates. The questions involving the interpretation of data were particularly well answered by both tiers of entry.

Higher Tier

The higher tier paper was accessible to most candidates with a high percentage able to answer the questions well throughout. Questions requiring interpretation of data and applied skills were well answered, with higher tier candidates scoring over 80% in this style of question. Punnett squares and the interpretation of them was very pleasing, although the calculation of percentage outcomes or ratios still remain a problem with only 41% of candidates able to correctly identify blue eyes. Questions on genetic modification proved to be discriminating with only 52% of candidates able to correctly identify true statements about genetic modification of plants. In the latter stages of the paper, candidates had problems with experimental based questions such as improving the quality of data or interpreting experimental data, with only 48% of candidates able to correctly identify these points. The role of minerals in plant growth continues to be an area where the candidates have problems, with only 54% of higher tier candidates able to correctly identify the role of nitrates in protein formation and magnesium in chlorophyll production.

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