Pearson Edexcel

Examiners' Report
Principal Examiner Feedback

Summer 2021

Pearson Edexcel International Award in iPrimary
In Science (JSC11/01)
Paper 01

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Question 11

The majority of candidates scored at least one mark, with most achieving 2, and many three. The most common fault was ‘candle burning’ being classed as a reversible change. Candidates needed to look for the cue of ‘burning’ as an irreversible change.

Question 12

Many candidates scored 2 marks here. Some of the weaker candidates had misunderstood, and added ‘eats beetles’, ‘eats slugs’ and ‘eats plants’ to the boxes, so it was not possible to award marks for these responses. The most common fault was slugs and beetles being transposed or putting them in complete reverse order.

Question 19

Most candidates scored at least one mark, with most knowing the roots anchored the plant to the ground. Some candidates were less sure of the function of the leaves, often putting ‘to attract insects'. Some candidates misunderstood the instructions and drew two lines from each part of the flower, to ensure there was a line to all the ‘function’ boxes.

Question 20

Most candidates who achieved P2 or P3 gave a correct response within the acceptable range.

Question 21

This was a discriminating question with P3 candidates generally doing well. Many other candidates gave a response of filtration or sieving even though there were two solids of similar size present in the diagram.

Question 22

This again discriminated between the levels, with some P3 achieving both marks, and some P2 achieving one mark, and P1’s finding this a difficult question. The most common answer given was that there was less oxygen breathed out, but candidates had difficulty in explaining why that happened. Some candidates simply stated the amount of oxygen breathed out and in again, without processing it in any way, and some stated ‘it goes up and down’.

Question 23

(a) (i) Some candidates were not sure whether it was the Earth spinning or the Earth orbiting the sun that caused it, so gave answers such as ‘it spins while it orbits the sun’ and so could not be awarded the mark, as they needed a single clear reason. Many P2 and above candidates achieved this mark.

(a) (ii) Many candidates across all grades could describe this is sunset or equivalent words.

(b) Most candidates found this difficult to express, often stating only one condition, such as ‘the shadow is short when the sun is high’ or the ‘the shadow is long when the sun is setting’ which were not quite enough for the mark, as there needed to be a comparison of some kind. A few candidates did express it as both statements, which did achieve the mark, but few expressed it in terms of ‘the higher the sun the shorter the shadow’

Question 28

A significant number of candidates found this far harder than when the converse is asked. While P3 and some P2 candidates achieved one or two marks, only a very few P1 candidates suggested adding a bulb or removing a cell.

Question 29

The vast majority of candidates knew the function of the heart was to pump blood. Only those who did not achieve an award had difficulty.

Question 30

As both needed to be correct to score a mark, many did not achieve the mark. The most common error was for the solid to take the shape of the bottom of the container.

Question 31

Most candidates achieved one mark, with the majority scoring both. A small number of candidates had ticked the box above the tick given, with scoring poorly often leaving a column blank.

Question 32

(a) (i) The majority of candidates correctly identified type B, with many adding an (correct) explanation.

(a) (ii) Candidates often had greater difficulty in expressing a correct response, often saying it had a lot of grip, or deep ridges, rather than it had more grip or deeper ridges than the others.

Question 33

(a) Candidates often gave responses regarding the seeds being spat out, or thrown away by the bird, rather than understanding the fruit had been swallowed with the seeds within, so could only be excreted, at some distance away from the parent plant, by the bird.

(b) Many candidates found this a difficult question, and provided a variety of answers including explosion, being carried by animals, or eaten. Some did appreciate it would be carried by wind, with few able to explain that the shape of the wings allowed it to travel some distance from the parent tree before landing and germinating.

Question 34

(a) (i) A surprising number of candidates did not gain a mark here, as they did not seem to understand the question. Many gave answers such as ‘a clamp’ or ‘ a flexible piece of plastic’.

(a) (ii) Generally, only P3 candidates scored this mark. Many candidates gave answers such as ‘keep the coin the same size’, or ‘repeat the test’.

(b) (i) The majority of candidates very carefully drew a neat bar of the correct height.

(b) (ii) Candidates often have difficulty in writing a conclusion for an investigation, and this question did set out the two factors they should consider in their conclusion, but many still found this very tricky. Some candidates would refer to the speed of the coin rather than distance travelled, others would talk about how far the coin moved in relation to the tip of the flexible plastic, which did achieve a mark if they had the correct relationship. Others would state the coin was hit harder, again, not relating the two distances involved.

Question 35

(a) Most candidates across the P levels gave a correct answer. Some did state ’81’ and a few ’20’.

(b) Candidates needed to explain that different volumes of water had evaporated because the water temperatures were different. Many candidates had some difficulties in expressing themselves, and those did achieve a mark usually noted that the volumes evaporated are different but didn’t link that to the different temperature of each beaker.

(c) Many candidates could use the correct term of safety gloves, many gave oven gloves as an acceptable alternative, although ‘gloves’ unqualified was not sufficient.

Question 36

(a) The most common fault was students adding the water fleas to the different types of water before they had measured the heart beats per minute in the water fleas normal environment.

(b) As this investigation is one candidates would have no prior knowledge of, many did find this a challenging question, with only high achieving students being able to apply their understanding of scientific concepts to a new situation to suggest keeping the temperature the same made it a fair test, or stated that changing temperature may affect the heart rate.

(c) Candidates found this question difficult. Some candidates did state that the results needed to be checked, or that it improved reliability, but very few achieved both marks.

Paper Summary

Considering the disruptions over the last year, students had prepared well for the exam and tried hard to show their understanding and achieve their best results. Most students attempted most of the questions, even when they were unsure of the answers, although candidates did find the ‘explain’ type questions more challenging.

In order to answer ‘explain’ type questions, which are always 2-mark questions, students need to link the description of what is happening to the reason it is happening. Students need to ensure they have a good understanding of scientific terminology to aid in their understanding of the questions asked, and to use correct scientific language to develop their answers.

Many candidates showed they have developed a good level of scientific knowledge and understanding, and some candidates were able to extend these ideas and concepts to new and novel situations in Section B. There has been an improvement in candidates understanding of the need for, and how to achieve, a fair test, and a greater understanding of reliability within practical skills.

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