

Commentary on candidate 6 evidence

The candidate evidence used in this workshop has achieved the following marks for each section of the coursework assessment task.

Section	Marks available	Marks awarded	Comments	
1 Aim	1	1	The candidate was awarded 1 mark, as despite the clumsy wording, they have made it clear that they were investigating the relationship between porosity, permeability and rock type.	
2 Underlying environmental science	3	2	The candidate was awarded 2 marks. One mark was awarded for correctly describing porosity, and the other for an accurate explanation for permeability.	
3 Data collection and handling	6	a	1	One mark was awarded because the candidate produced a very good and concise description of the experiment.
		b	1	One mark was awarded because each 'type of rock' was tested three times, which was just enough to produce a reliable result.
		c	0	The candidate was awarded 0 marks as the column headings for number of attempts and type of rock were confused, and the SI unit 's' for denoting time taken was not in the heading.
		d	1	One mark was awarded as the values had been calculated correctly.
		e	1	The candidate was awarded 1 mark. Although the internet-sourced diagram did not completely match the sediments that the candidate had used in their experiment, the principle was appropriate in that diminishing grain size tends to be directly related to porosity and permeability. However, the inclusion of clay and solid rock was confusing:

				<ul style="list-style-type: none"> ◆ Because clay was not used in the experiment. ◆ Some types of solid rock are permeable and/or porous. ◆ The candidate was using sediments in their experiment although they were referred to as 'rock'.
		f	0	No reference was provided so no mark was awarded.
4 Graphical presentation	4	a	1	The candidate was awarded 1 mark. The graph was rather small and the candidate had not utilised the full extent of the graph paper area. This would be an issue in the question paper because graph paper is provided to candidates and they are expected to make use of all of the graph paper provided.
		b	1	The candidate was awarded 1 mark, as the scale was suitable. No '0' was placed at the junction of the x and y-axis but this is acceptable at this level.
		c	0	The candidate was awarded 0 marks. The candidate has included the title 'Time taken in secs' on the y-axis of their graph. 'Secs' is not the appropriate SI unit to use for time. The candidate has placed the correct unit 's' in their table, but as already mentioned in data collection and handling part c, this is not in the correct place.
		d	0	No marks were awarded because some of the plots were out with half box tolerance.
5 Analysis	1		0	The candidate was awarded 0 marks because the comparison between the candidate's internet source and their experiment was not totally compatible, as the experiment did not test clay. Had the candidate used gravel instead of clay, this would have been acceptable. The candidate has also not fully explained why they think the source supports the experiment.
6 Conclusion	1		0	The candidate was awarded 0 marks because the candidate did not use four rocks in their experiment. The lack of understanding between a rock and unconsolidated sediment is understandable at this level, but to state that the porosity of clay had been

			demonstrated, when it had not been included in their experiment, is not.	
7 Evaluation	2	1	The candidate was awarded 1 mark for 'pouring exactly 90ml into all of the containers'. The reasoning was weak, and the impact of the funnel size was not explained well.	
8 Structure	2	a	1	The candidate was awarded 1 mark.
		b	1	The candidate was awarded 1 mark.
Total	20	12		