

KS4 Science retrieval grid: four topics and a second go

Pupil activity

Audience: Years 9 to 11 Science pupils

Recall and apply methods from four Science topics, score each row out of ten and use a second attempt to choose a revision target.

KS4 Science retrieval grid: first attempt

First attempt: no notes and no calculator. Time limit: ____ minutes. For the later retry, use a calculator only if the teacher sets that condition. Each row is worth 10 marks: 1 + 2 + 3 + 4.

Topic	Level 1, 1 mark	Level 2, 2 marks	Level 3, 3 marks	Level 4, 4 marks	Score / 10
Biology: cells	In a typical plant or animal cell, name the structure containing most genetic material. _____ _____	Name the structure where photosynthesis happens and give one needed input. _____ _____	Write the word equation for photosynthesis. _____ _____	Explain why a palisade leaf cell has many chloroplasts, using light energy. _____ _____	
Chemistry: solutions	Name the method used to separate an insoluble solid from a liquid. _____ _____	Convert 250 cm ³ to dm ³ . _____ _____	Find the mass concentration of 5 g solute in 250 cm ³ solution in g/dm ³ . _____ _____	Compare 8 g in 400 cm ³ with 10 g in 500 cm ³ . Show whether their concentrations are equal. _____ _____	

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Topic	Level 1, 1 mark	Level 2, 2 marks	Level 3, 3 marks	Level 4, 4 marks	Score / 10
Physics: speed	Write the equation linking speed, distance and time. _____ _____	Substitute distance 150 m and time 12 s into the equation. _____ _____	Calculate the speed, with a unit. _____ _____	Calculate the distance travelled at 12.5 m/s for 20 s, showing equation and unit. _____ _____	
Working scientifically: measurements	Name an instrument for measuring temperature. _____ _____	Find the mean of 10 °C, 12 °C and 11 °C. _____ _____	Four times are 12 s, 16 s, 14 s and 18 s. Find the mean. _____ _____	Explain how repeated measurements help spot an anomalous result and judge whether results are consistent. _____ _____	

Score: biology __ / 10; chemistry __ / 10; physics __ / 10; measurements __ / 10. Total __ / 40. Topic to revisit first: _____

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Second go

Question code missed	Second attempt	Answer checked	Tip to remember

Build a new grid

Choose four topics from the current Science unit. Write one 1-mark, one 2-mark, one 3-mark and one 4-mark retrieval question for each. Score each topic out of ten.

Topic	1 mark	2 marks	3 marks	4 marks

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Topic	1 mark	2 marks	3 marks	4 marks