

Choosing a method to separate mixtures

Grade 6 science (Year 7 · Class 6) · Test answers (mark scheme)

Use this guide to mark your own work. Give one mark for each correct point even when your wording is different. Add up your marks out of 20 and revise the methods where you lost marks.

Level: Grade 6 science (Year 7 · Class 6) · **Curriculum:** MS-PS1-2

Question 1 Choosing methods (2 marks)

- a. Use a magnet. (1)
- b. Evaporation. (1)

Marking: 1 mark each.

Question 2 Sand and salt (3 marks)

- a. Salt is soluble in water but sand is insoluble. (1)
- b. Filtering (or decanting). (1)
- c. Evaporation of the filtrate. (1)

Marking: 1 mark each part.

Question 3 Filtration diagram (3 marks)

- a. Filter paper. (1)
- b. The filtrate. (1)
- c. Sand. (1)

Marking: 1 mark each part.

Question 4 A bag of compost (3 marks)

- a. $0.04 \times 2500 = \mathbf{100\ g}$. (1)
- b. $2500 - 100 = \mathbf{2400\ g}$. (1)
- c. $2380 \div 2400 \times 100 = \mathbf{99.2\ \%}$. (1)

Marking: 1 mark each part.

Question 5 Dissolved salt (2 marks)

Dissolved salt particles are very small (1) and pass through the holes in the filter paper with the water (1).

Marking: 1 mark for the size, 1 mark for passing through.

Question 6 Magnetic separation (3 marks)

Steel contains iron, so it is attracted by a magnet and lifted out (1). Aluminium is not magnetic (1), and neither is plastic, so a magnet attracts neither and cannot separate them (1).

Marking: 1 mark each for steel attracted, aluminium not magnetic, plastic not magnetic.

Question 7 Finishing evaporation (2 marks)

When little water is left, the dish is very hot and the last drops can boil suddenly and spit the salt out (1). The remaining water will evaporate from the warm dish, giving dry crystals (1).

Marking: 1 mark for spitting, 1 mark for the heat in the dish finishing the drying.

Question 8 Correct the statement (2 marks)

Filtering removes the undissolved mud (1) but dissolved substances and germs still pass through, so the water is not pure (1).

Marking: 1 mark for mud removed, 1 mark for dissolved substances or germs remaining.