Separating mixtures

Matter 3.5.2 | Part 1, usually Year 7 | 20 quick questions

KS3 science quick questions

Answer online, marked instantly

Activate 2: Separation techniques | Exploring Science 7E

Name: _____ **Date:** _____ **Score:** _____ **/ 20**

1 A spoonful of sugar is stirred into a cup of tea and disappears. What is the sugar called in this mixture?

2 In the sweet tea, the water does the dissolving. What is the water called?

3 When a solute dissolves in a solvent, what is the clear mixture called?

4 Salt dissolves in water. Which one word describes a substance that can dissolve?

5 Sand sinks to the bottom of a bucket of water and does not dissolve. Which one word describes sand?

6 Which method would you use to separate sand from water?

7 During filtering, what is the liquid that drips through the filter paper called?

8 What is the solid left behind on the filter paper called?

9 You want to get dry salt crystals back from salty water. Which method should you use?

10 Sailors on a long trip need pure drinking water from seawater. Which method boils the water off and then cools the steam to collect it?

11 A detective wants to find out which dyes are mixed together in the ink of a felt-tip pen. Which method should be used?

12 You keep adding sugar to a glass of water until no more will dissolve. What word describes the solution now?

13 Distilled water contains only water with nothing else mixed in. What word describes a substance like this? Answer in one word.

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14 A single pure dye is tested using chromatography. How many spots will it make?

15 5 g of salt is dissolved in 200 g of water. What is the mass of the solution in grams?

Year 9 stretch

16 In distillation, which piece of equipment cools the vapour so it turns back into a liquid?

17 On a chromatogram, a dye travels 3 cm and the solvent travels 6 cm. Use R_f = distance moved by dye / distance moved by solvent. What is the R_f value?

18 Explain why the start line on chromatography paper is drawn in pencil, not in pen.

19 At room temperature, 36 g of a salt dissolves in 100 g of water before the solution is saturated. What is the most that will dissolve in 50 g of water at the same temperature? Give your answer in grams.

20 A mixture of two liquids is gently heated to separate them. Does the liquid with the lower or the higher boiling point turn into vapour first? Answer lower or higher.

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