

GCSE Chemistry: Fluids and Concentration

Priority Learning

Worksheet

Name: _____ Date: _____

Question:	1	2	3	4	5	6	7	8	Total
Marks:	5	3	3	3	4	1	3	11	33
Score:									

Aims of this worksheet:

- Learning how to word exam style answers.
- Recalling and describing experiments you need to be familiar with for your exam.
- Recalling and describing definitions you need to be familiar with for your exam.
- Practicing concentration calculations.

1. (a) What is diffusion? (2 marks)

.....
.....
.....

(b) Draw a diagram representing diffusing gas particles in a room. (2 marks)

(c) Explain why diffusion is a slow process. (1 mark)

.....
.....
.....

2. Describe what Brownian motion is. (3 marks)

.....
.....
.....
.....

3. A piece of cotton wool is soaked in ammonia solution, another piece of cotton wool is soaked in hydrogen chloride solution and both pieces of wool are placed in a sealed test tube. You observe a white ring forming closer to the wool soaked in the hydrogen chloride solution.

(a) Explain this experiment referencing Brownian motion in your answer. You may draw a diagram to support your answer. (3 marks)

.....
.....
.....
.....
.....
.....
.....
.....

4. Describe an experiment that would allow you to observe diffusion happening. You may draw a diagram to support your answer. (3 marks)

.....
.....
.....
.....
.....

5. Complete the following sentences.
- (a) When a substance is able to dissolve in water we say it is _____. (1 mark)
 - (b) The name given to the liquid that does the dissolving is called the _____. (1 mark)
 - (c) The name given to the substance dissolved in liquid is the _____. (1 mark)
 - (d) The liquid formed after the _____ has dissolved in the solvent is called the _____. (1 mark)

6. What is a saturated solution? (1 mark)

.....
.....

7. What is meant by the solubility of a substance? (3 marks)

.....
.....
.....
.....

8. (a) What is the formula relating concentration, amount of solute and volume of solution?
Write down the units of each part of the equation. (3 marks)
- (b) If we dissolve 20 mols of hydrogen chloride in 80dm^3 of water to get hydrochloric acid (solution). What is the concentration of the hydrochloric acid formed? (2 marks)
- (c) If we dissolve 5 mols of potassium iodide in 2dm^3 of water what concentration of potassium iodide solution do we get? (2 marks)
- (d) Hydrogen sulphate dissolves in water to form sulphuric acid. If we dissolve 6 mols of hydrogen sulphate in 400cm^3 of water what concentration of sulphuric acid would we obtain? (4 marks)