

Chemistry - Key Stage 3

Particles - Lesson 13

Solubility Worksheet

Miss Mason



Recap

1. Describe the arrangement of particles in solids, liquids and gases.
(Make sure you use the words 'random', 'regular', 'touching' and 'far apart' where relevant).
2. Describe the movement of particles in solids, liquids and gases.
(Make sure you use the words 'direction', 'speed', 'around each other' and 'vibrate' where relevant).
3. Define the word 'solvent'.
A solvent is a substance that others can d_____ in.
4. Define the word 'solute'.
A solute is a substance that is able to d_____.
5. What is a solution?
A solution is created when a s_____ and a s_____ are combined.



Copy and complete

Use these words to complete each sentence:

Saturated

soluble

solubility

If a solute (solid) can dissolve in a solvent (liquid), we say that the solute (solid) is...

The measure of how much solute (solid) that dissolves in a solvent (liquid) is called the...

When a solution can no longer dissolve any more solute (solid) we say that the solution is...



Which of the following does NOT happen when the temperature of a substance is increase?

Option 1

Kinetic energy increases

Option 2

Volume increases

Option 3

Density increases

Option 4

Bonds weaken



Why does an increased temperature increase the solubility of a substance?

Option 1

Less space between solvent particles for solute to dissolve

Option 3

More space between solute particles for solvent to dissolve

Option 2

More space between solvent particles for solute to dissolve

Option 4

The solute particles reach the solvent particles more quickly due to increase kinetic energy



- 1. Define solubility.**
- 2. Describe the different factors that can affect solubility.**
- 3. Suggest why more solute can be dissolved in water than ethanol.**

Solubility is the m_____ of s_____ that will dissolve in _____cm³ of water.

One factor that can affect solubility is...

This is because...

Another factor that can affect solubility is...

This is because...

More solute can be dissolved in water and ethanol because...

