

# Solubility

Chemistry - Key Stage 3

Particles - Lesson 13

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 \_\_\_\_\_cm<sup>3</sup> 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...

