14–16 years

Elements, compounds and mixtures

Unscrambling definitions

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Unscrambled definitions

The **molecular formula** uses chemical symbols to give the number of atoms of each element in one molecule of the substance, such as N_2 for nitrogen or H_2O for water.

The **empirical formula** gives the simplest whole number ratio of atoms of each element in a substance, such as CH_2 for ethene which has molecular formula C_2H_4.

The **chemical formula** uses chemical symbols to show the relative number of the atoms of each element in a substance, such as H_2O for water or $NaCl$ for sodium chloride.

Aqueous is when a substance is dissolved in water; shown by the state symbol (aq).

Unscrambled definitions continued

Dilute is when there is not very much solute dissolved in a particular volume of solvent.

Concentrated is when there is a lot of solute dissolved in a particular volume of solvent.

A **saturated solution** is when no more solute can dissolve in a particular volume of solvent at that temperature.

Connection completion

Choose the letter from the table below that contains the correct row of connective words to complete these sentences:

A dilute, aqueous solution can be made more concentrated _____ adding more solute. _____, in order to produce a saturated solution, more solute must be added _____ no more can dissolve in a particular volume of solvent at that temperature.

A	despite	Although	or
B	through	Despite this	therefore
C	by	Furthermore	until
D	thereby	Conversely	in addition

Connection completion: completed sentences

A dilute, aqueous solution can be made more concentrated **by** adding more solute. **Furthermore**, in order to produce a saturated solution, more solute must be added **until** no more can dissolve in a particular volume of solvent at that temperature.