

Chemical Formulae

1. For each compound, write down the number of elements and the number of atoms.

Compound	Formula	Number of Elements	Number of Atoms
ammonia	NH ₃		
methane	CH ₄		
sodium chloride	NaCl		
calcium carbonate	CaCO ₃		
sulfuric acid	H ₂ SO ₄		
sodium bicarbonate	NaHCO ₃		
acetic acid	CH ₃ COOH		

2. Write the formula for each compound.

Compound	Number of Atoms	Formula
hydrochloric acid	1 atom of hydrogen and 1 atom of chlorine	
ethene	2 atoms of carbon and 4 atoms of hydrogen	
aluminium oxide	2 atoms of aluminium and 3 atoms of oxygen	
nitric acid	1 atom of hydrogen, 1 atom of nitrogen and 3 atoms of oxygen	
sodium hydroxide	1 atom of sodium, 1 atom of oxygen and 1 atom of hydrogen	
glucose	6 atoms of carbon, 12 atoms of hydrogen and 6 atoms of oxygen	

Compound and Mixture Properties

Cut and stick each property into the correct column of the table.

The substance has different properties to the elements it is made from.

The elements can only be separated using chemical reactions.

Each substance can be separated easily.

The different elements are chemically joined together.

You cannot vary the amount of each element.

The different substances are not chemically joined together.

Each substance keeps its own properties.

You can vary the amount of each substance.

Compound and Mixture Properties

Complete the table to show which of the properties describe compounds and which describe mixtures.

Property	Compound or Mixture?
The substance has different properties to the elements it is made from.	
The elements can only be separated using chemical reactions.	
Each substance can be separated easily.	
The different elements are chemically joined together.	
You cannot vary the amount of each element.	
The different substances are not chemically joined together.	
Each substance keeps its own properties.	
You can vary the amount of each substance.	

Element, Compound or Mixture?

Label each box with the correct key word: **element**, **compound** or **mixture**.

