

The Periodic Table

Metals are generally found on the left side of the table, non-metals on the right.

Groups: Columns of the periodic table.

Periods: Rows of the periodic table.

Group 1 contains reactive metals called alkali metals.

Group 7 contains non-metals called halogens.

Group 0 contains unreactive gases called noble gases.

Atom	Smallest particle of an element
Element	Contains only one type of atom listed in the periodic table.
Compound	More than one type of atom chemically joined together.
Molecule	Particle made from 2 or more atoms joined together.
Polymer	Molecule made of 1000's of small molecules joined together.
Physical property	Features observed without changing the substance.
Chemical property	The way a substance reacts with other substances.

Hydrogen gas is an element. As you can see above it is made up of molecules containing the same atom. Only one type of atom appears in hydrogen gas.

Water is a compound. It is made up of molecules with two different types of atoms.

Air is a mixture. It is made up of different elements and compounds.

Element Symbol	A simple code for an element name. A single or pair of letters. The first letter is a capital letter.
Bigger number	The mass of one atom of the element.
Smaller number	The position of the element in the periodic table

Simple Formula of Molecules

- H₂** Two hydrogen atoms joined to each other. Hydrogen.
- H₂O** Two hydrogen atoms joined to a single oxygen atom. Water.
- CO₂** One carbon atom joined to two oxygen atoms. Carbon Dioxide

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7	GROUP 0
The Periodic Table							
H ¹ Hydrogen A _r = 1							He ² Helium A _r = 4
Li ³ Lithium A _r = 7	Be ⁴ Beryllium A _r = 9	B ⁵ Boron A _r = 11	C ⁶ Carbon A _r = 12	N ⁷ Nitrogen A _r = 14	O ⁸ Oxygen A _r = 16	F ⁹ Fluorine A _r = 19	Ne ¹⁰ Neon A _r = 20
Na ¹¹ Sodium A _r = 23	Mg ¹² Magnesium A _r = 24	Al ¹³ Aluminium A _r = 27	Si ¹⁴ Silicon A _r = 28	P ¹⁵ Phosphorus A _r = 31	S ¹⁶ Sulphur A _r = 32	Cl ¹⁷ Chlorine A _r = 35	Ar ¹⁸ Argon A _r = 40
K ¹⁹ Potassium A _r = 39	Ca ²⁰ Calcium A _r = 40						

For the following questions you must use the periodic table above.

Subject	Year 8 Matter
Name the first element.	Hydrogen
What is the symbol for the first element?	H
What is the mass of an atom of the first element to the nearest whole number?	1
How many groups does the periodic table have?	8
Which group has the strangest number?	0
Name element number 8.	Oxygen
What is the symbol of element number 18.	Ar
Which group is magnesium in?	2
Name element 20.	Calcium
What is the symbol for the twentieth element?	Ca
What is the mass of an atom of the twentieth element?	40
Which group is the twentieth element in?	2
What would the mass of two hydrogen atoms be?	2
What would the mass of two oxygen atoms be?	32
What would the total mass of these atoms be - H, H and O?	18
Key word - two or more different atoms joined together.	Compound
Key word - only one type of atom.	Element
Key word - different elements and compounds not joined together.	Mixture
What is a monomer?	A small molecule
A long chain of molecules joined together is called what?	A polymer

Subject	Year 8 Matter
Name the first element.	
What is the symbol for the first element?	
What is the mass of an atom of the first element to the nearest whole number?	
How many groups does the periodic table have?	
Which group has the strangest number?	
Name element number 8.	
What is the symbol of element number 18.	
Which group is magnesium in?	
Name element 20.	
What is the symbol for the twentieth element?	
What is the mass of an atom of the twentieth element?	
Which group is the twentieth element in?	
What would the mass of two hydrogen atoms be?	
What would the mass of two oxygen atoms be?	
What would the total mass of these atoms be - H, H and O?	
Key word - two or more different atoms joined together.	
Key word - only one type of atom.	
Key word - different elements and compounds not joined together.	
What is a monomer?	
A long chain of molecules joined together is called what?	

Subject	Year 8 Matter
Name the first element.	
What is the symbol for the first element?	
What is the mass of an atom of the first element to the nearest whole number?	
How many groups does the periodic table have?	
Which group has the strangest number?	
Name element number 8.	
What is the symbol of element number 18.	
Which group is magnesium in?	
Name element 20.	
What is the symbol for the twentieth element?	
What is the mass of an atom of the twentieth element?	
Which group is the twentieth element in?	
What would the mass of two hydrogen atoms be?	
What would the mass of two oxygen atoms be?	
What would the total mass of these atoms be - H, H and O?	
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