

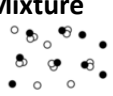


1.1 - The Periodic Table	
Periodic Table	Contains information about 118 elements , arranged in order of atomic number .
Groups	The vertical columns .
Periods	The horizontal rows .
Alkali Metals	Group 1 elements . Very reactive , soft and dull .
Halogens	Group 7 elements .
Noble Gases	Group 0 elements . Very unreactive .
Transition Metals	Found in the middle block .

1.2 - Chemical Symbols of Elements					
C	carbon	He	helium	N	nitrogen
H	hydrogen	F	fluorine	S	sulphur
O	oxygen	Cl	chlorine	Be	beryllium
Li	lithium	Br	bromine	Cu	copper
Na	sodium	Mg	magnesium	Fe	iron
K	potassium	Ca	calcium	Ne	neon

1.3 - Properties of Metals and Non-Metals		
Properties	Metals	Non-Metals
Periodic Table	Left hand side	Right hand side
Do they conduct?	Conductors of heat and electricity	Insulators of heat and electricity
Appearance	Shiny (when polished)	Dull
Density	High density (heavy for their size)	Low density (light for their size)
Mechanical Properties	Malleable (can be bent or hammered into shape)	Brittle (breaks easily)
	Ductile (can be pulled into wires)	
Sonorous?	Sonorous (makes a ringing sound when hit)	Not sonorous

1.4 - Elements, Compounds and Mixtures	
Element 	Substance made up of only one type of atom .
Compound 	Substance made up of two or more types of atom , chemically joined together .
Mixture 	Two or more substances mixed together but not chemically joined .
Chemical Reaction	A change in which atoms are rearranged and new substances are made. Often irreversible .
Physical Change	A change in which no new substances are made. E.g. changes of state . Often reversible .
Naming compounds	Rule 1: Use for metal + non-metal . Metal goes first , then non-metal changes ending to -ide . E.g. iron + sulphur -> iron sulphide
	Rule 2: Use for metal + non-metal + oxygen . Metal goes first , then non-metal changes ending to -ate . E.g. copper + sulphur + oxygen -> copper sulphate

1.5 - Chemical Formulae of Substances					
H ₂ O	water	H ₂	hydrogen	C ₆ H ₁₂ O ₆	glucose
CO ₂	carbon dioxide	Cl ₂	chlorine	NH ₃	ammonia
O ₂	oxygen	CH ₄	methane	NaCl	sodium chloride
N ₂	nitrogen	CO	carbon monoxide	CuSO ₄	copper sulphate

Y7 Science Cycle 3 – Sheet 1

Atoms, Elements & Periodic Table