ATOMS

TOP MARKS SCIENCE

Structure

Below is an example of an _____

They have the same number of protons but different numbers of _____

Properties

	Charge	Relative mass
Proton	+1	
Electron		0
Neutron	0	

Particles

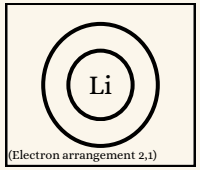
P___ N___ ____

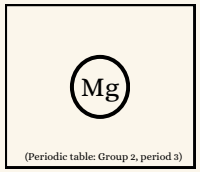
Found in the ..... of the atom

Orbits the nucleus in .....

Max electrons on inner shell: ☐

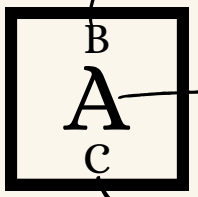
Max electrons on shells 2&3: ☐





Finish the atomic diagrams

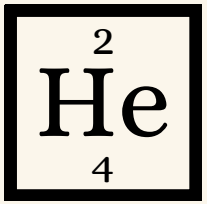
Of elements



_____ number (no. of protons)

Element symbol

Atomic ____ (no. of ____ + ____)



- Protons: ☐
- Electrons: ☐
- Neutrons: ☐

Displayed on the.... ☐

Periods go....

Oxygen is in group...., period....

Columns (down) are called...

A substance made up of ___ type of atom

As you go down a group, atoms get BIGGER/ SMALLER because they have MORE / LESS shells

Reactivity

STRONG / WEAK attraction between outer electron and nucleus

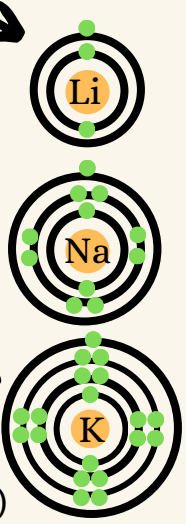
Harder to LOSE / GAIN

LESS reactive

STRONG / WEAK force of attraction between outer electron and nucleus

..... reactive

(Opposite for the halogens group ....)



Equations

Reactants

$A + B \rightarrow C + D$

Mass of reactants = Mass of products

☐ Mg + O2 → ☐ MgO

1 Magnesium
1 Sulphur
4 Oxygens

☐

Compounds

Total number of atoms in compound =

CH4 → .... X H.....

1 X Carbon

A substance made up of 2 or more **types** of atom joined CHEMICALLY / PHYSICALLY by ..... that can be made and broken in chemical .....

O2 Y/N

CH4 Y/N

CO2 Y/N

Ions

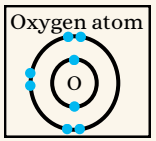
An ion is an atom that has gained or lost _____ to become charged.

Gain 1:	-
Gain 2:	
Gain 3:	3-

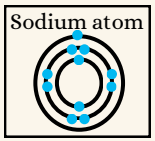
GAIN: _____

Lose 1:	
Lose 2:	2+
Lose 3:	

LOSE: positive [+] ions



Oxygen ion



Sodium ion