Starter

For each compound below, write down what element(s) it contains and how many atom(s)of each element there are.

$NaOH$

CH_4

$LiBr$

NH_4NO_3

MgO

$CaCO_3$

Cl_2

H_2SO_4

$C_6H_{12}O_6$

Na_2O

Extension: write down the name of as many compounds as you can

Objectives

- Know what the main types of bonding are
- Be able to draw diagrams to represent both ionic and covalent bonding

Key words

Starter: find definitions for the following words:

element

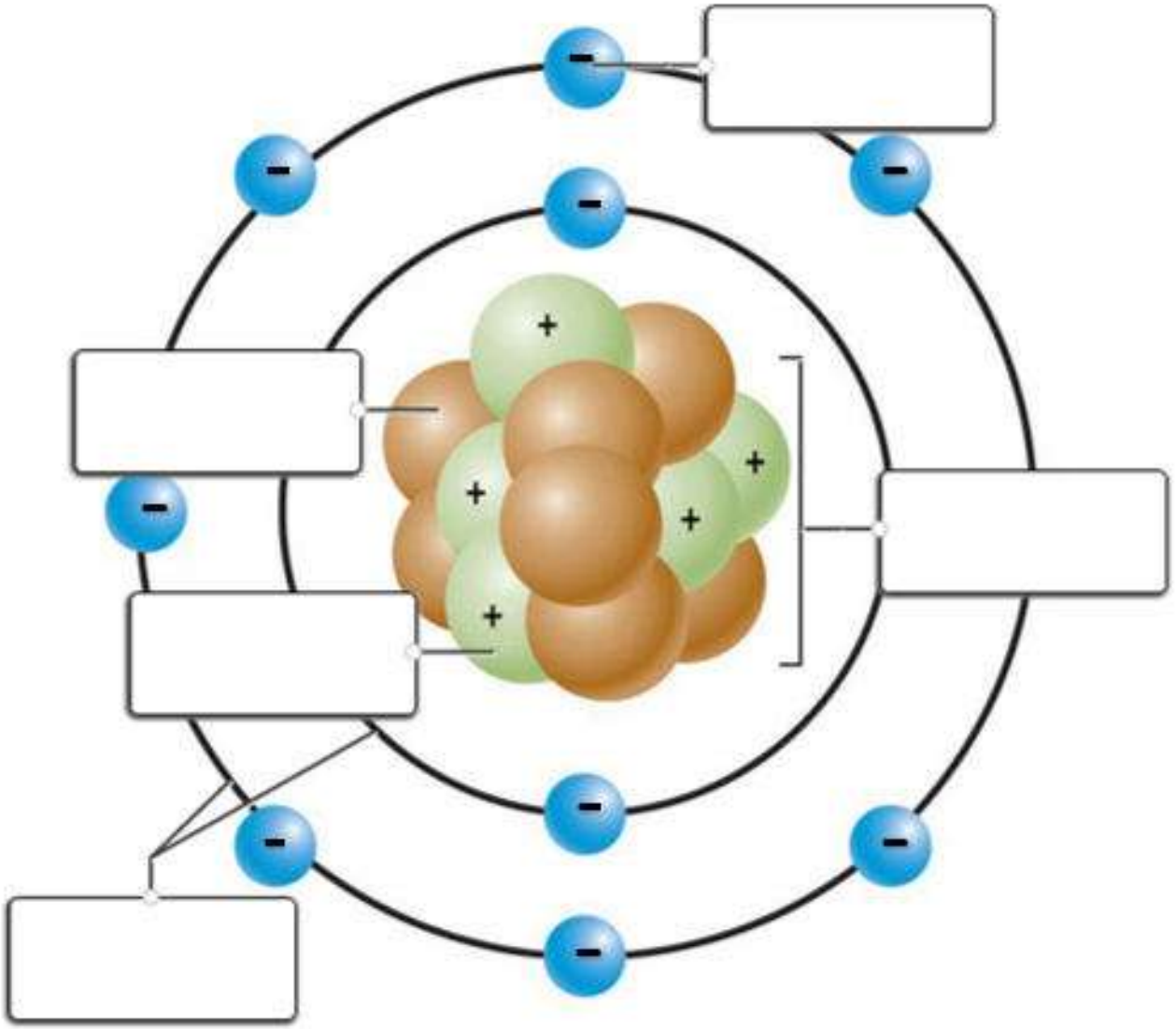
ATOM

compound

ion

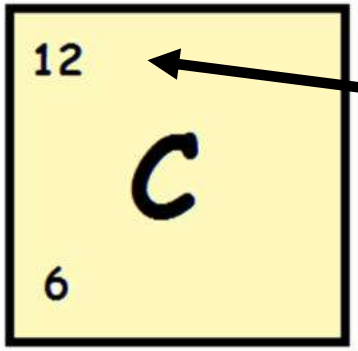
the molecule

Extension: draw a diagram to represent each definition

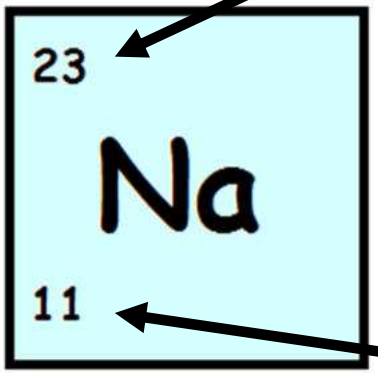


Subatomic particle	Location	Mass	Charge
Proton	Nucleus	1	+1
Neutron	Nucleus	1	No charge
Electron	Shells	0 (negligible)	-1

The Periodic Table

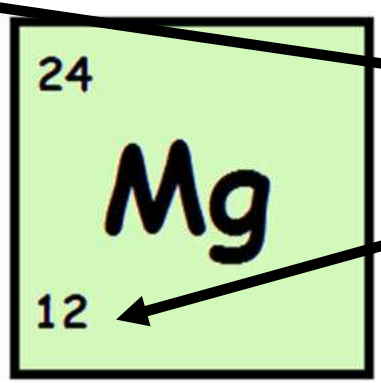


What does the **mass number** (bigger number) tell us about an element?



Mass number = protons + neutrons

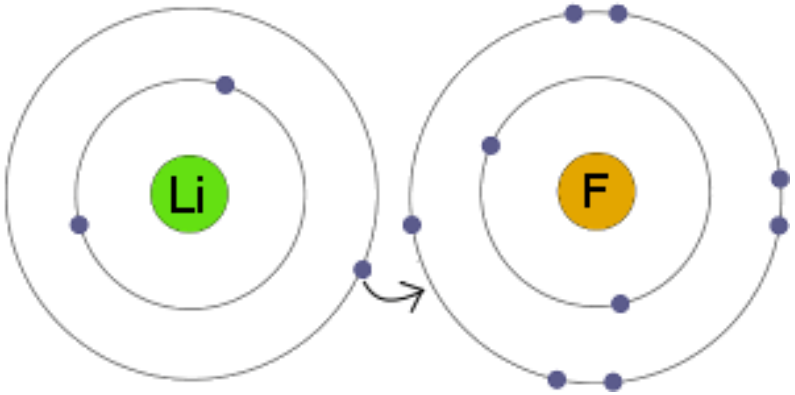
Atomic number = proton number = electron number

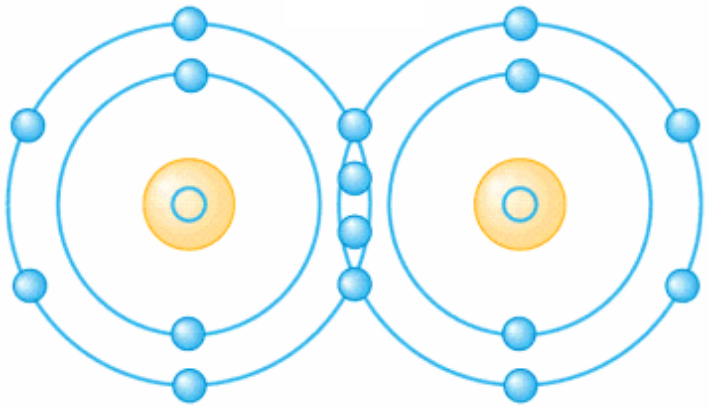


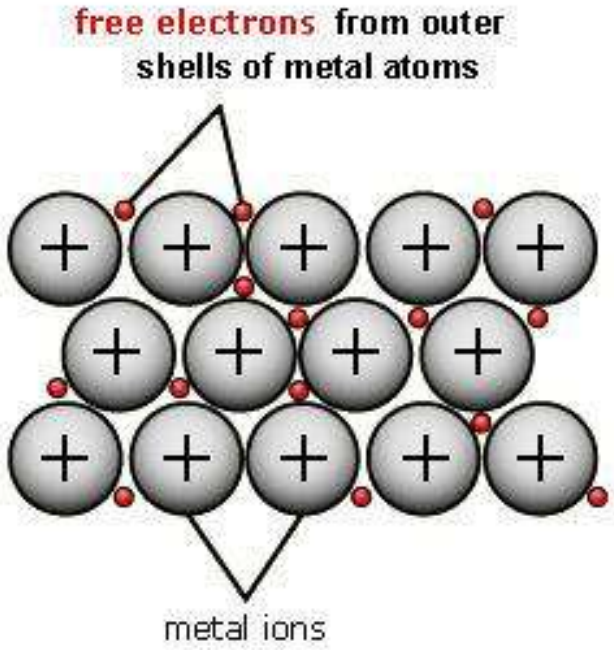
What does the **atomic number** (smaller number) tell us about an element?

Bonding

There are 3 main types – can you remember what they are?

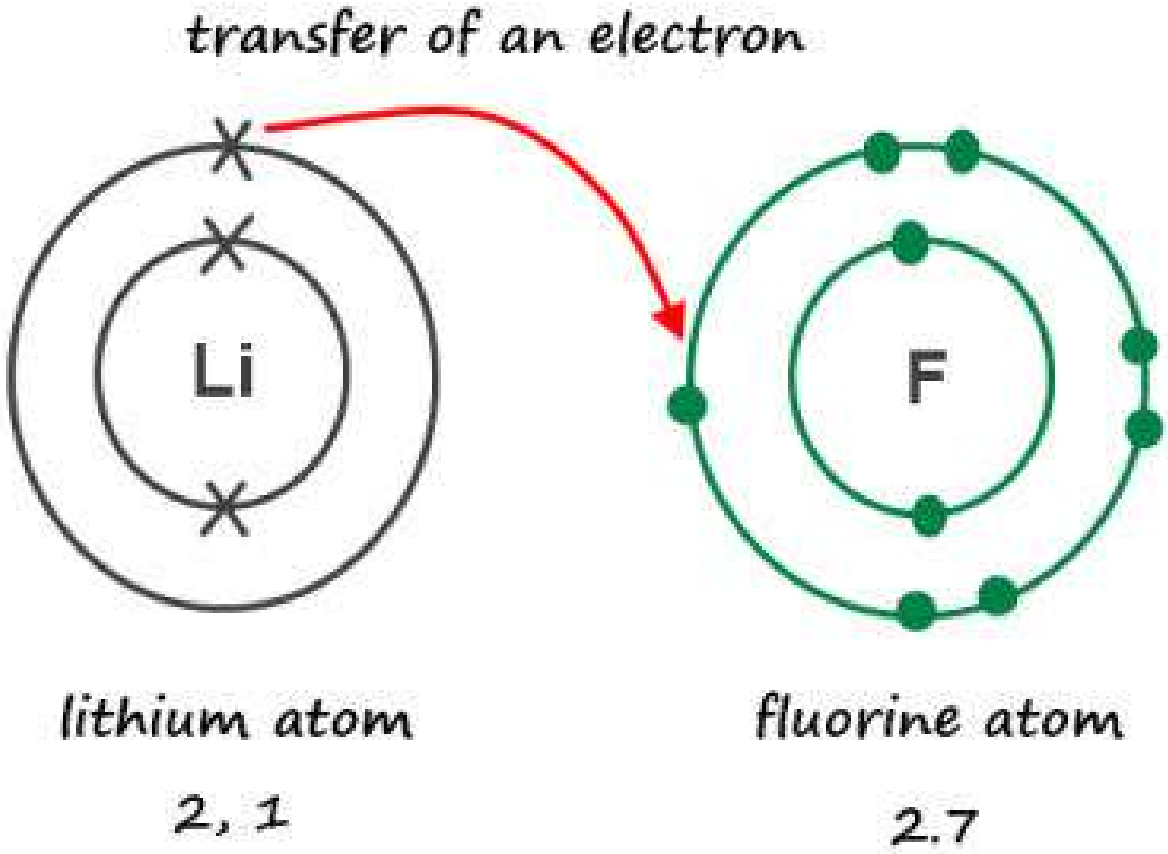






https://www.youtube.com/watch?v=zGG9hsqJopc

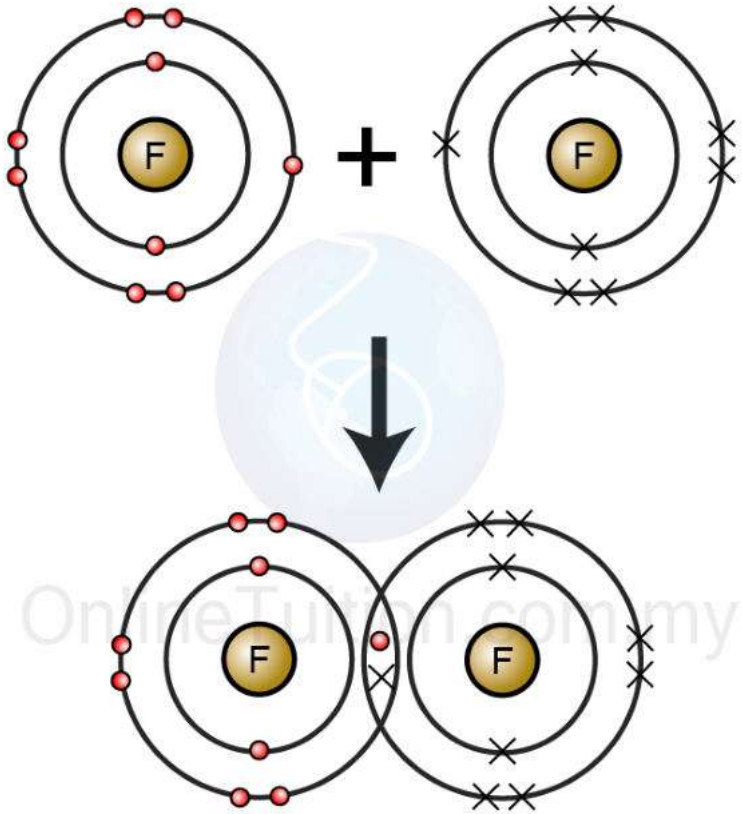
Ionic bonding



Task

Have a go at the ionic bonding worksheet

Covalent bonding



Task

Have a go at the covalent bonding worksheet

Objectives

- Know what the main types of bonding are
- Be able to draw diagrams to represent both ionic and covalent bonding

Plenary

Ionic or covalent?

- Happens between 2 non-metals
- Electrons are shared
- Ions are created
- Happens between a metal and non-metal
- Electrons are either lost or gained
- The type of bonding in sodium chloride
- The type of bonding in oxygen