Chemistry
Lecture
Elements

Element is made up of only one kind of atom

- **oxygen has only oxygen atoms**
- **carbon has only carbon atoms**
- **nitrogen has only nitrogen atom**

There are about hundred elements in periodic table and they are arranged according to the atomic number

Types of elements

1. **Now most elements are metals**
2. **Some are metalloids metalloid means semi metals**
3. **The rest are non metals**

How are elements arranged in the periodic table?
According to their atomic mass.

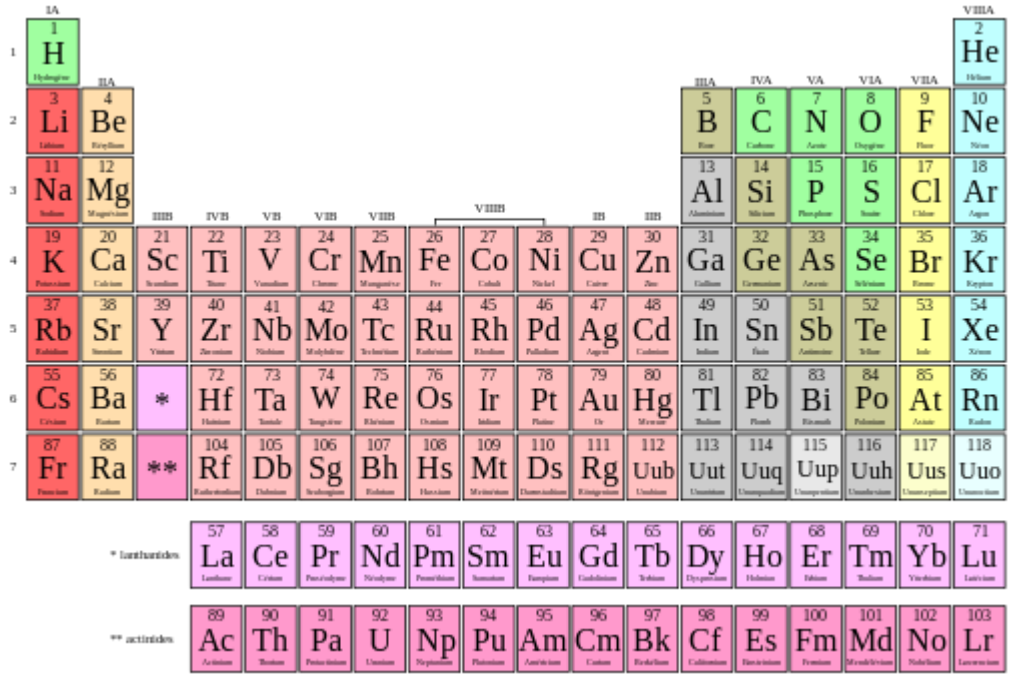
Are most elements metals are non metals?
Metals

Chemical symbols:

- Every element is shown by a symbol
- A symbol has one or two letters
- First letter is always capital and the second letter is small

Example oxygen O

Sodium has a symbol Na



Compounds:

Compound is made when two or more elements chemically join together

Just like in carbon dioxide there is one part of carbon and two parts of oxygen (CO_2)

How compounds are formed

Atom form Bond to do this atoms may need to share, gain or lose electrons
now in this energy is involved either it is released or either it is absorb
Types of bonding

1. **Ionic bonding**
2. **Covalent bonding**

Ionic bond:

Ionic bond is formed between metals and non metals

1. **metal loses electrons**
2. **non metal gains electrons**

Sodium + chlorine = NaCl , table salt

Covalent bond:

1. **Covalent bond is formed by the sharing of electrons**
2. **Atoms share electrons**
3. **Example is water H2O**

Questions

1. What is a compound?
2. What is the difference between ionic bonding and covalent bonding ?