

### STD 10- FIRST BELL - CHEMISTRY - READINESS CLASS-01

## PERIODIC TABLE

#### **Elements & Classification**

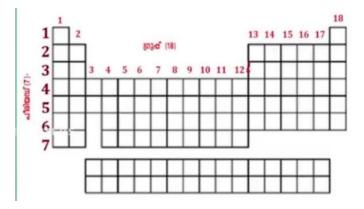
Dmitri Ivanovich Mendeleev:

- Father of periodic table.
- The physical and chemical properties of elements are periodic functions of their **atomic masses**.

Modern periodic law- Moseley:

- The chemical and physical properties of elements are periodic functions of their atomic numbers.
- Now the total number of elements in the modern periodic table is 118. (The first element is Hydrogen(H) and the last one is Oganesson (Og).

## Group and period



- The vertical columns in the periodic table are known as groups.; elements with similar properties are found in groups.
- The horizontal rows are called periods.
- 18 groups and 7 periods are present.
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Period Number	No of Elements	First Element	Last element
1	2	lΗ	<sub>2</sub> He
2	8	<sub>3</sub> Li	$_{10}\mathrm{Ne}$
3	8	11Na	<sub>18</sub> Ar
4	18	19 <b>K</b>	<sub>36</sub> Kr
5	18	37 <b>Rb</b>	<sub>54</sub> Xe
6	32	55Cs	<sub>86</sub> Rn
7	32	<sub>87</sub> Fr	<sub>118</sub> Og

# Family:

Group Number	Family	
1	Alkali metals	
2	Alkaline earth metals	
3 to 12	Transition elements	
13	Boron family	
14	Carbon family	
15	Nitrogen family	
16	Oxygen family	
17	Halogens	
18	Noble gases	

## **Periodic Trends:**

Trends	Down the group	Across the period
Size of atom	Increases	Decreases
Metallic character	Increases	Decreases
Non metallic character	Decreases	Increases
Ionisation energy	Decreases	Increases
Electronegativity	Decreases	Increases

### HOME WORK

- 1. The elements of 3 to 12 are called.....
- 2. in modern periodic table the elements are arranged in the ascending order of.....