



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

	1																18
1		2															
2																	
3			3	4	5	6	7	8	9	10	11	12					
4																	
5																	
6																	
7																	

- 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	${}_1\text{H}$	${}_2\text{He}$
2	8	${}_3\text{Li}$	${}_{10}\text{Ne}$
3	8	${}_{11}\text{Na}$	${}_{18}\text{Ar}$
4	18	${}_{19}\text{K}$	${}_{36}\text{Kr}$
5	18	${}_{37}\text{Rb}$	${}_{54}\text{Xe}$
6	32	${}_{55}\text{Cs}$	${}_{86}\text{Rn}$
7	32	${}_{87}\text{Fr}$	${}_{118}\text{Og}$

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....