

Periodic Table: Notes

1	2	3-12										13	14	15	16	17	18
Alkali Metal Family	Alkali EARTH Metal Family	Transition Metal Family										Boron Family	Carbon Family	Nitrogen Family	Oxygen Family	Halogen Family	Noble Gas Family
*	Lanthanide Series																
**	Actinide Series																

Rare Earth Metals

Family 1: Alkali Family

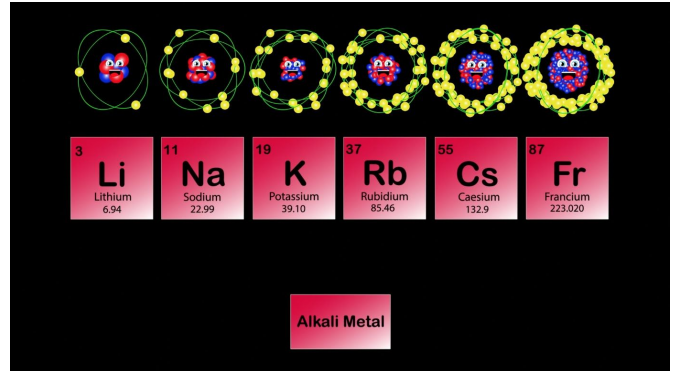
On the table mark, label the Alkali Family.

Examples:

Lithium (Li), Sodium (Na), Cesium (Cs)

Traits:

- 1 Valence Electron (+1)
- Soft Silvery, Shiny Metal
- Extremely Reactive, makes Ionic Bond
- Good Conductor of Heat and Electricity



Family 2: Alkaline Earth Metals

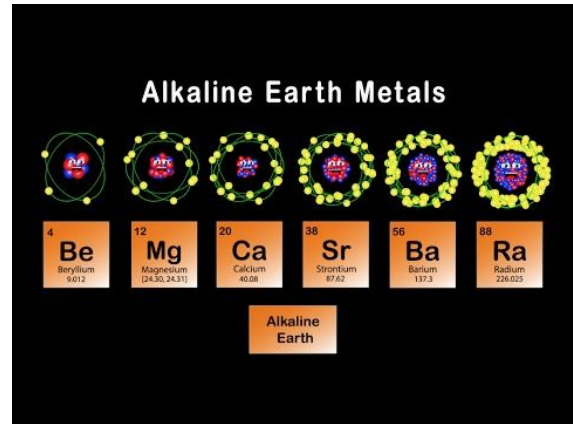
On the table, label Alkaline Earth Metals

Examples:

Beryllium (Be), Calcium (Ca), Radium (Ra)

Traits:

- 2 Valence Electrons (+2)
- Very light, but sturdy metals
- Usually found combined with other elements
- Reactive, makes Ionic Bonds



Family 13: Boron Family

On the table, label the Boron Family

Examples:

Boron (B), Aluminum (Al), Gallium (Ga)

Traits:

- 3 Valence Electrons (+3)
- Metalloid, (traits of metals and nonmetals)
- B - Hard but brittle
- Al- good conductor of heat and electricity



Family 14: Carbon Family

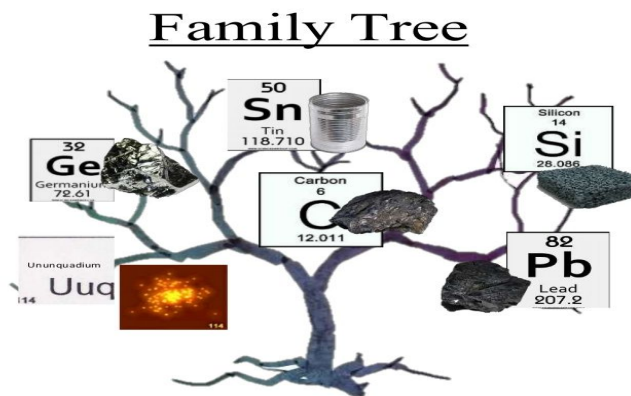
On the table, label the Carbon Family

Examples:

Carbon (C), Silicon (Si), Tin (Sn)

Traits:

- 4 Valence Electrons (+/- 4)
- Non-metals, Carbon- forms numerous bonds
- Metalloids, Silicon and Germanium
- Metals, Tin and Lead



Group 14

Family 15: Nitrogen Family

On the table, label the Nitrogen Family

Examples:

Nitrogen (N), Phosphorus (P), Bismuth (Bi)

Traits:

- 5 Valence Electrons (-3)
- Shares electrons in Covalent Bonds
- Nitrogen makes up 78% of the air
- Very stable often found not in bonds



Nitrogen, N



Phosphorus, P



Arsenic, As



Antimony, Sb



Bismuth, Bi

**Group 15,
pnictogens**

Family 16: Oxygen Family




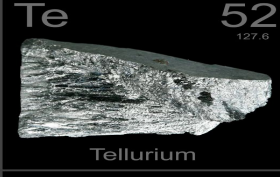


On the table, label the Oxygen Family

Examples:

Oxygen (O), Sulfur (S), Polonium (Po)

Traits:

- 6 Valence Electrons (-2)
- Share electrons, Covalent Bonds
- Nonmetals, brittle

 <p>O 8 16.003 Oxygen</p>	 <p>S 16 32.065 Sulfur</p>
 <p>Se 34 78.96 Selenium</p>	 <p>Te 52 127.6 Tellurium</p>
 <p>Po 84 209 Polonium</p>	 <p>Lv 116 292 Livermorium</p>


Oxygen, O


Sulfur, S


Selenium, Se


Tellurium, Te


Polonium, Po

**Group 16,
chalcogens**

Family 17: Halogens

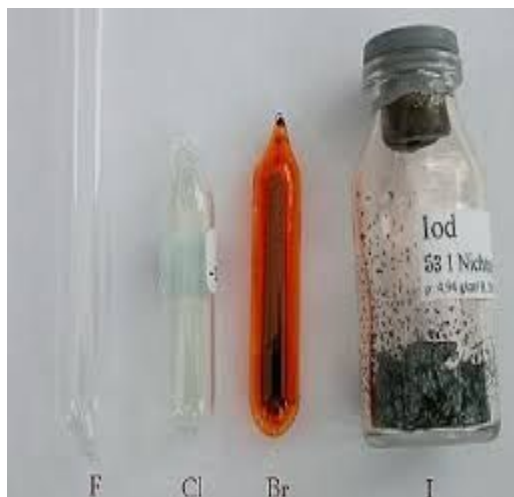
On the table, label the Halogens

Examples:

Fluorine (F), Chlorine (Cl), Iodine (I)

Traits:

- 7 Valence Electrons (-1)
- Most active nonmetals
- Easily bonded, because it only needs one electron
- Bonds with Alkali Metals



**Group 17,
halogens**

Family 18: Noble Gases

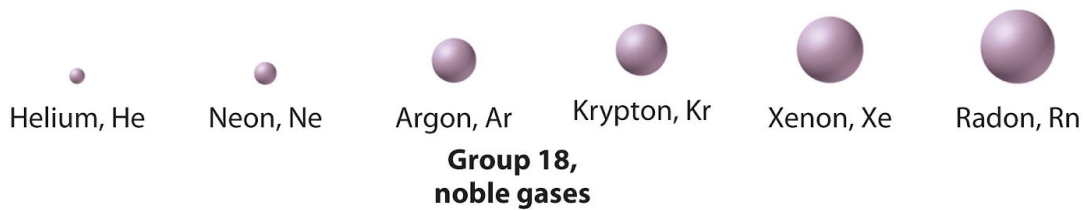
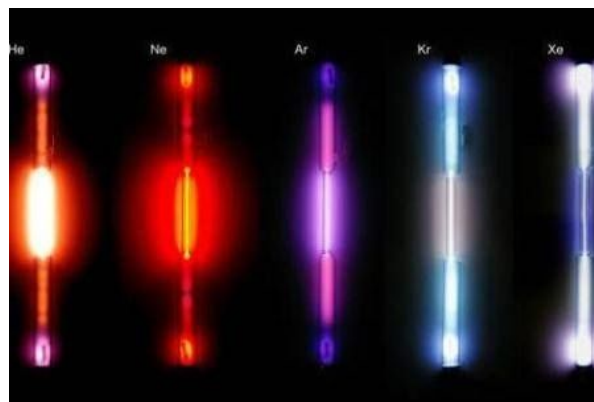
On the table, label the Noble Gases

Examples:

Helium (He), Neon (Ne), Krypton (Kr)

Traits:

- 8 Valence Electrons (0)
- Unreactive, Inert Gases
- Nonmetals
- Found in the atmosphere



Rare Earth Metals

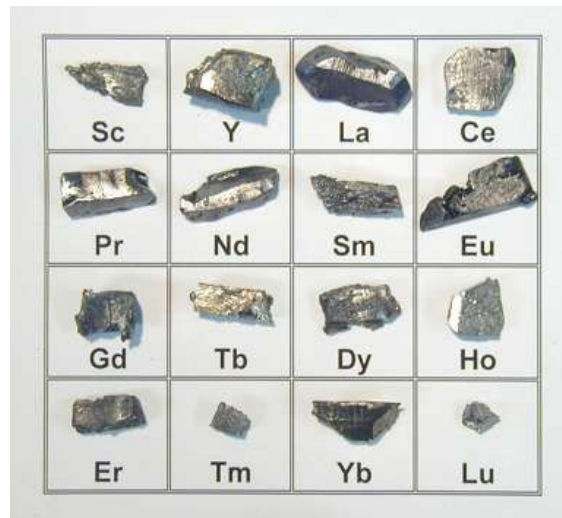
On the table, label the two rows on the bottom * and **, the Rare Earth Metals

Examples:

Lanthanoid Series, Actinoid Series

Traits:

- First Row, Soft malleable metals
- High Luster and conductivity
- Second Row, Radioactive
- Most made in Laboratory



LANTHANIDES

58	59	60	61	62	63	64	65	66	67	68	69	70	71
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu

ACTINIDES

90	91	92	93	94	95	96	97	98	99	100	101	102	103
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr