

# Periodic Table

The Periodic Table of Awesomeness

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62																												
10	9	8	7	6	5	4	3	2	1	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62																												
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30	29	28	27	26	25	24	23	22	21	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100										
40	39	38	37	36	35	34	33	32	31	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100																				
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100	99	98	97	96	95	94	93	92	91	100																																																																															

# Elements

- Every capital letter represents an element:
  - Example: Na, H, Mg, not MG

JUST WRITE THE  
UNDERLINED PARTS  
USE CORNELL NOTE FORMAT



A screenshot of a periodic table interface. It shows four rows of element information. Each row consists of the element's name in red text on the left and its symbol in blue text on the right. The elements shown are Antimony (Sb), Arsenic (As), Boron (B), and Germanium (Ge). At the bottom of the screenshot, there is a small grey button with the word 'back' written on it.

Antimony	Sb
Arsenic	As
Boron	B
Germanium	Ge

# Periodic Table Summary

- Divided into 4 areas:
- metals
- Nonmetals
- semi-metals
- noble gases (Inert Gases)

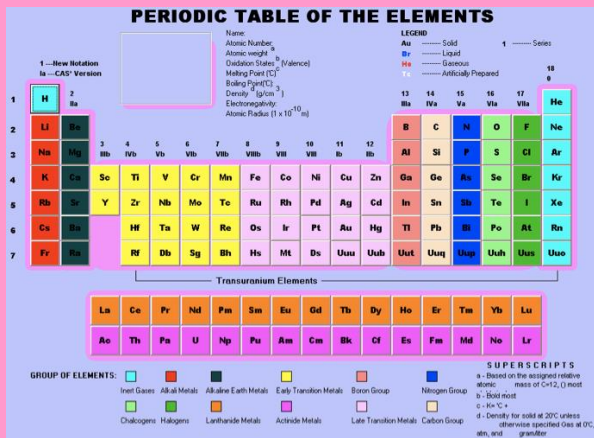
- What are GROUPS?

- vertical columns
- There are 18 groups
- Also called FAMILY (families)

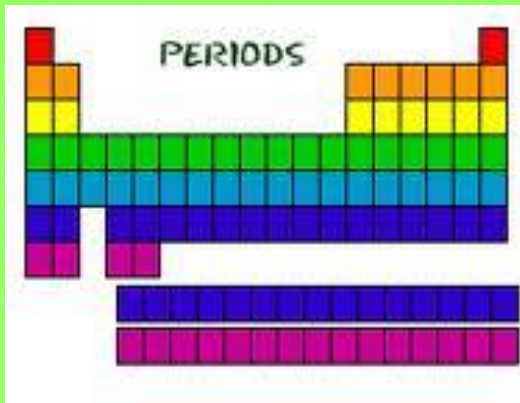
- Elements in the same groups have:

- Similar properties

- Same number of valence electrons



- What  
are  
Periods?



- Also called rows
- Are horizontal
- There are 7 rows
- Elements in the same row have the same number of electron shells



• What are metals?



- Are located on the left side of dark diagonal line
- Conduct heat and electricity
- Are ductile (wires)
- Are malleable (smash into thin sheets)

- What are Non-metals?

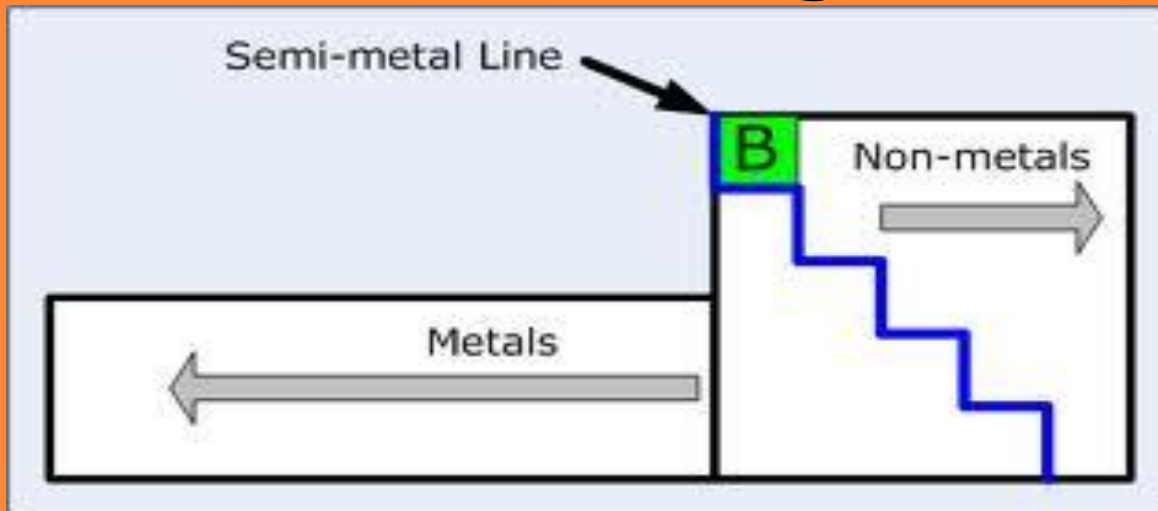


- Are located on the right side of the dark diagonal line
- Are brittle (break)
- Are dull (not shiny)



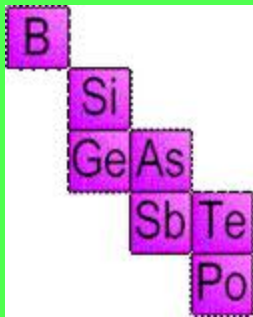
- Dark diagonal line

- Separates metals (left) from non-metals (right)



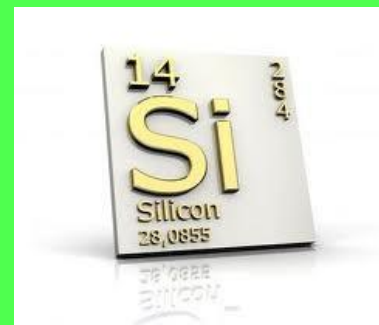


- Semi-metals  
(metalloids)

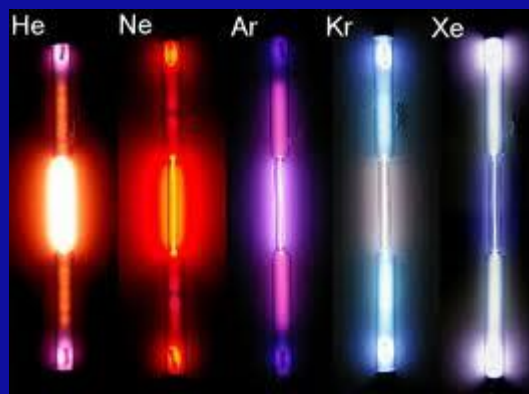
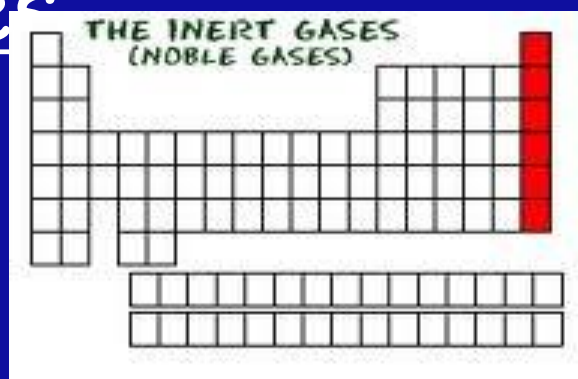


- Are elements that  
are touching the  
dark diagonal line  
EXCEPT  
ALUMINUM!

- such as: B, Si, Ge,  
As, Sb, Te, Po, At



- “Noble gases”  
or “Inert  
gases”



- Group 18
- These gases are inert
- They do not react
- All electron shells are full

# Names of the groups/families

- #1      1 Val e- Alkali Metals \*\* most reactive METAL
- #2      2 Val e- Alkaline Earth Metals
- #3 - #12      (skip Val e-) Transition Metals
- #13      3 Val e- Boron
- #14      4 Val e - Carbon
- #15      5 Val e- Nitrogen
- #16      6 Val e- Oxygen
- #17      7 Val e- Halogen \*\* most reactive NON METAL
- #18      8 Val e- All Shells Full Inert Gas (Noble Gas)