

Representative Elements



Families of Elements

- Elements in a family have similar properties.
- Families are linked to the group of an element.

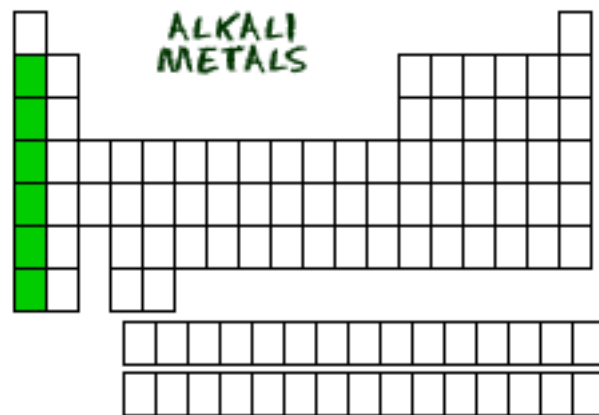
alkali metals										inert gases							
H	alkaline earth metals										halogens					He	
Li	Be											B	C	N	O	F	Ne
Na	Mg	d-transition metals										Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn
Fr	Ra	Ac	Rf	Ha	Sg	Ns	Hs	Mt									

f-transition metals

Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr

Alkali Metals

- The elements in Group 1 (except Hydrogen).
- These are very reactive metals because they have one electron in their outer shell. that are shiny and soft enough to be cut with a knife.



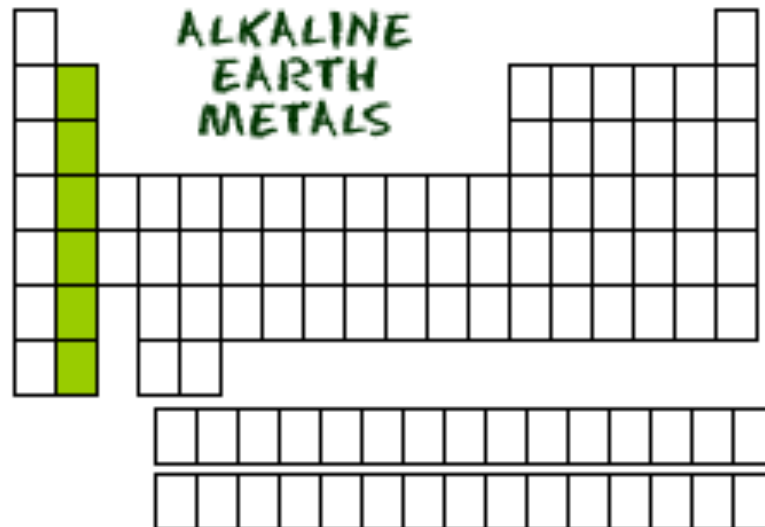
Alkali Metals Properties

- Alkali metals are shiny and soft enough to be cut with a knife.
- They also react with water to give off hydrogen gas.



Alkali Earth Metals

- All the elements in Group 2.
- Second most reactive metal with 2 valence electrons



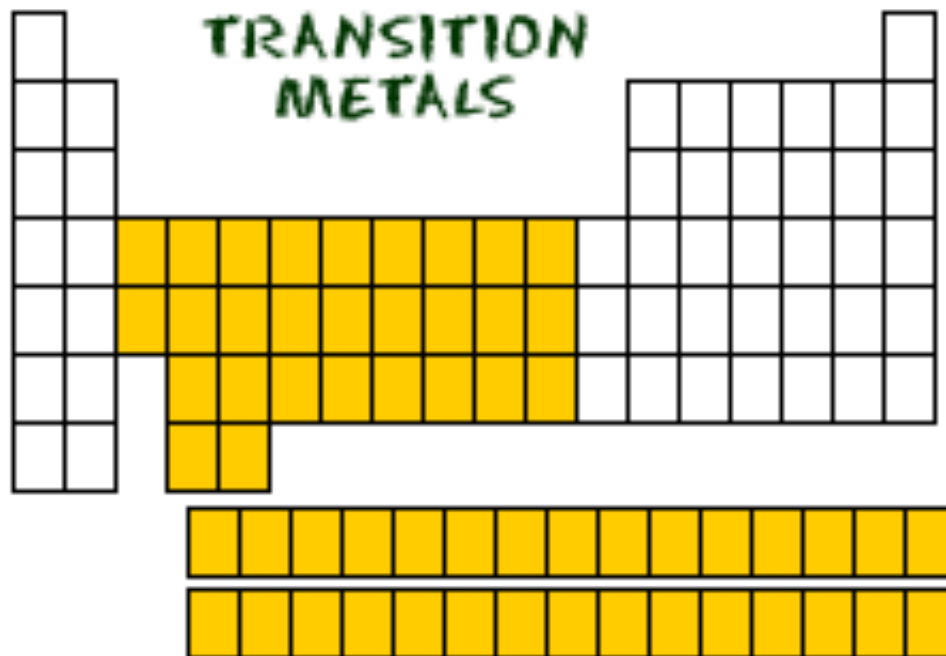
Alkali Earth Metals Properties

- Shiny and silvery white metals.



Transition Metals

- Large group of elements from groups 3-12.



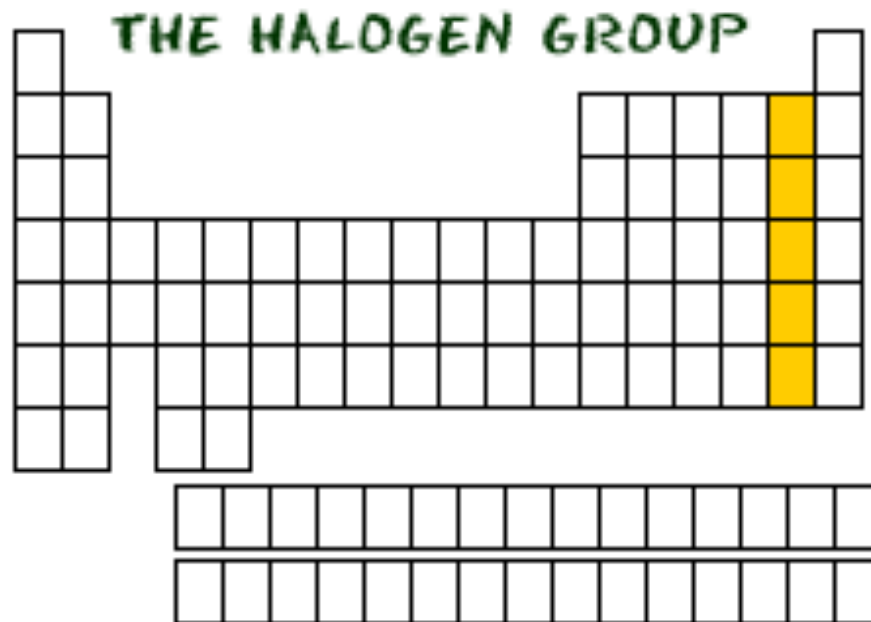
Transition Metals properties

- Transition metals can be shaped, and they conduct heat and electricity well. Usually found combined with other elements in ores.
- Includes many common elements such as silver and gold.



Halogens

- Very reactive elements in group 17.
- Often combine with metals and group 1 elements.



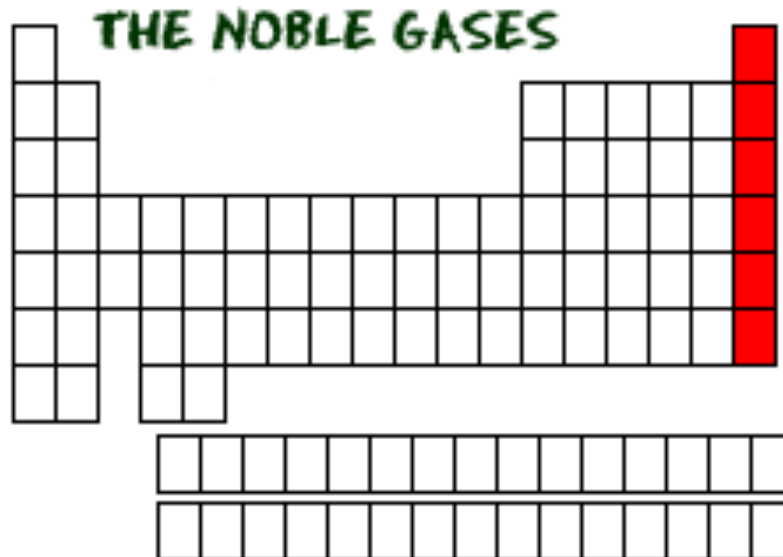
Halogens Properties

- Highly reactive non-metals.
- All are toxic.



Inert Gases

- Non-reactive elements in group 18.
- Don't often react with other elements because their outer shell is full .



Inert Gases Properties

- They have a low boiling point and are all gases at room temperature.
- Because they do not react easily with other elements are often used for storage.

