Jumpstart

Take out your periodic table.
Work on these questions quietly by yourself. When you finish then check your answers with your neighbor.

1) Write 3 sentences about why the periodic table is set up how it is.

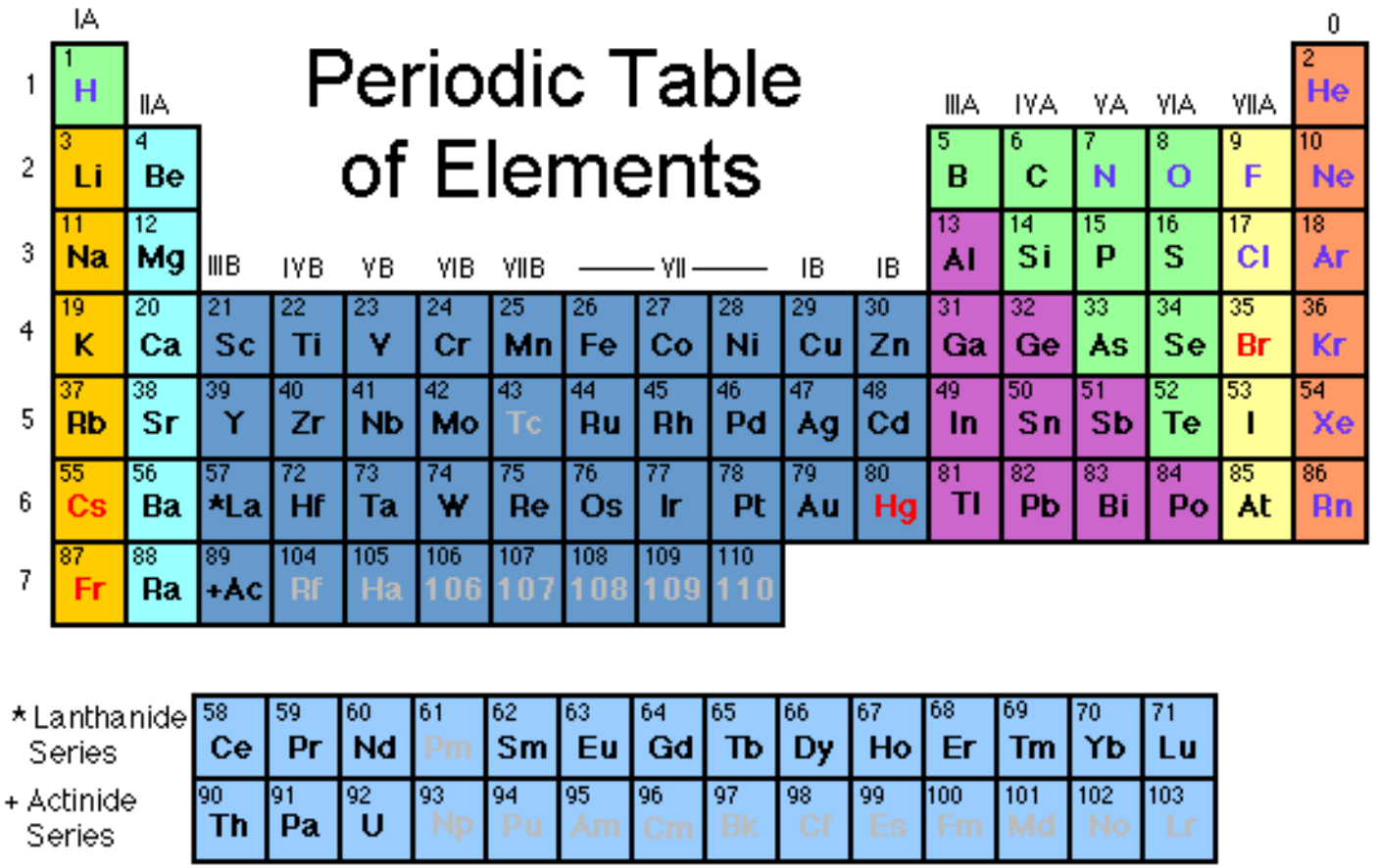
2) Identify each element as an alkali metal, alkaline earth metal, transition metal, halogen, or noble gas

a) Lithium b) Krypton c) Cobalt d) Barium e) Chlorine

3) Give 1 example of elements for each category that are NOT used in #2

a) noble gases
b) alkaline earth metals
c) halogens
d) transition metal
e) alkali metals

Structure of the Periodic Table



Reactivity

Has to do with electron configuration

Reactivity

Most Reactive

Least Reactive - INERT

Most Reactive

Already have a full shell! Don't want to lose it!

Closest to a full Octet – Full Valence Shell

Periodic Table of Elements

	IA	IIA	IIIB	IVB	VB	VIB	VIIB	—— VII ——	IB	IB	IIIA	IVA	VA	VIA	VIIA	0
1	1 H															2 He
2	3 Li	4 Be									5 B	6 C	7 N	8 O	9 F	10 Ne
3	11 Na	12 Mg									13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	57 *La	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	89 +Ac	104 Rf	105 Ha	106 106	107 107	108 108	109 109	110 110								

Elements in the same group have similar behaviors

Because they have the same number of valence electrons!!!

Reactivity in Groups

- **Metals –** more reactive as you go **DOWN**
  - Easier to lose electrons because valence electrons are further away from nucleus

- **Non-metals –** more reactive as you go **UP**
  - Smaller the atom the more it wants an electron to gain

Brainiac Video

Disposal of Sodium