#### **Getting To Know the Periodic Table**

Objective: To be able to use the periodic table to identify and classify elements and to use the periodic table to predict the behavior of elements

Procedure: Follow these steps IN ORDER to correctly complete this activity!!!

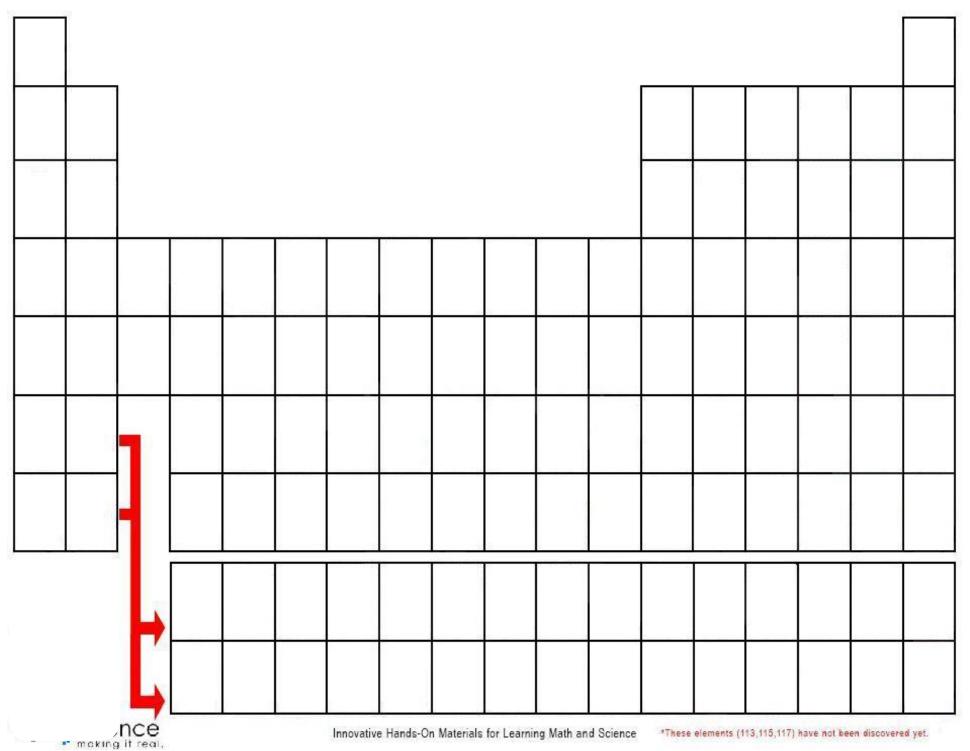
- 1. Number the groups (There are 18)
- 2. Number the periods (There are 7)
- 3. Draw a heavy **black** line between the metals and nonmetals—this looks like stair-steps! (look at text pg.120, Fig. 22)
- 4. Write the name of each of the following groups above the number:
  - Group 1 Alkali metals
  - Group 2 Alkaline earth metal
  - Group 3-12 (collectively) transition metals
  - Group 17 Halogens
  - Group 18 Noble gases
- 5. Place the **atomic number** for each element in the **top left of each box**.
- 6. Write the **symbol** of each element that exists as a **gas** at ordinary conditions in **RED**.
- 7. Write the **symbol** of each element that is a **solid** at ordinary conditions in **BLACK**.
- 8. Write the **symbol** of each element that is a **liquid** at ordinary condition in **BLUE**.
- 9. Write the **symbol** of each element that is a **man-made** element as an **outline**. \*\*Example: **Pm**
- 10. Use the following chart to color the periodic table (color the boxes of the elements):

Halogens blue
Noble gases yellow
Alkali metals purple
Alkaline earth metals red
Transition elements green
Lanthanides orange
Actinides light blue

11. Outline the element's box in dark green if it is RADIOACTIVE in its most common form.

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### KEY:

## GAS {red}

H, He, N, O, F, Ne, Cl, Ar, Kr, Xe, Rn,

# **LIQUID {blue}**

Br, Hg

## **SOLID (black)**

Li, Be, B, C, Na, Mg, Al, Si, P, S, K, Ca, Sc, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Ge, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ru, Rh, Pd, Ag, Cd, In, Sn, Sb, Te, I, Ba, Hf, Ta, W, Re, Os, Ir, Pt, Au, Tl, Pb, Bi, Po, At, Ra, Rf, Sg, Bh, Hs, Mt, Tb, Dy, Ho, Er, Tm, Yb, Lu, Uuu, Uub, Sm, Eu, Gd, Ga, Cs, Fr

## **RADIOACTIVE {element's box** OUTLINED in GREEN}

Tc, Po, At, Rn, Fr, Ra, Rf, La, Ce, Pr, Nd, Pm, Ac, Th, Pa, U, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr

### MAN-MADE / SYNTHETIC {OUTLINED symbol}

Tc, Pm, Np, Pu, Am, Cm, Bk, Cf, Es, Fm, Md, No, Lr