Name:
Class:

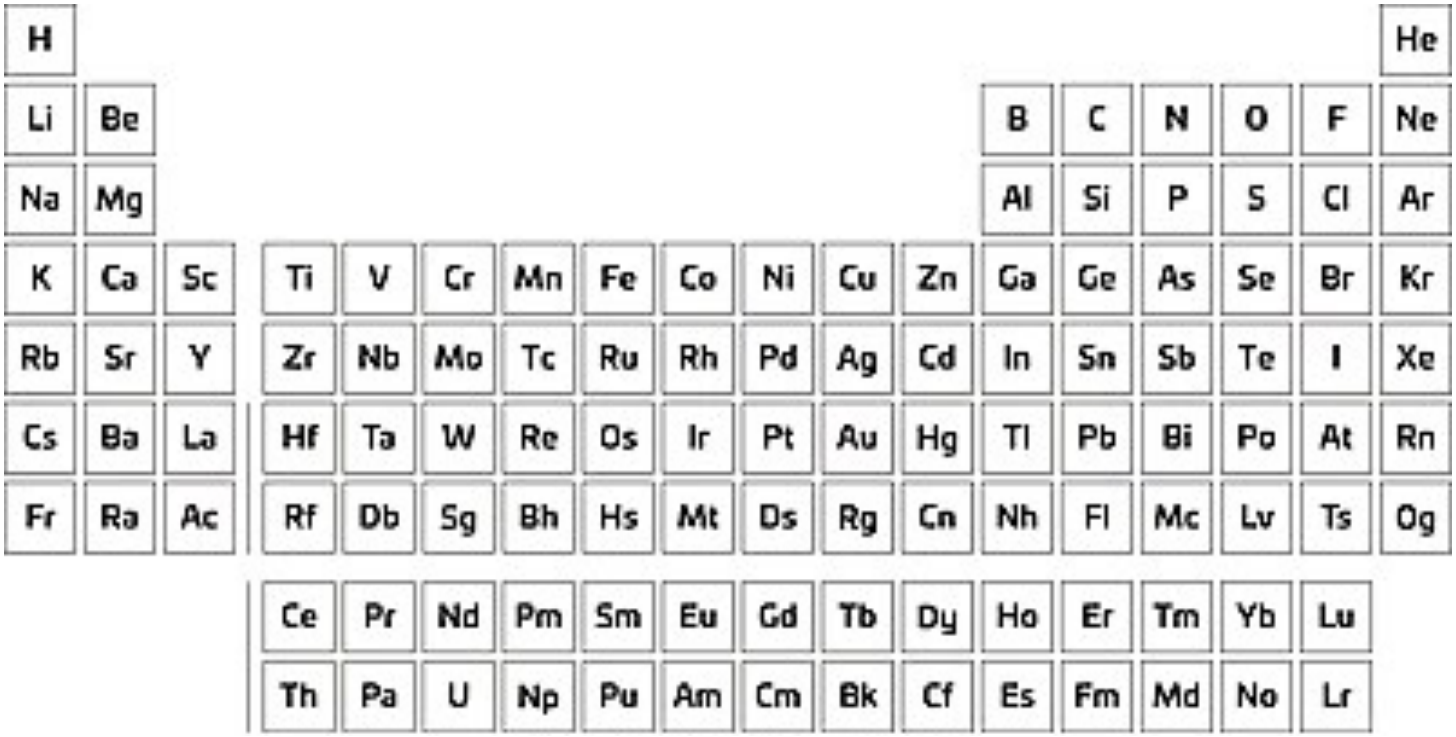
Periodic Table Activity

Instructions: Using the links page posted on the website and your class periodic table, complete the following activities. You will work with your lab partner. Each of you will submit a copy of the completed assignment.

Activity 1 - Periodic Parts and Pieces

Instructions: Given the information on the periodic table you received, on the periodic table below, complete the following.

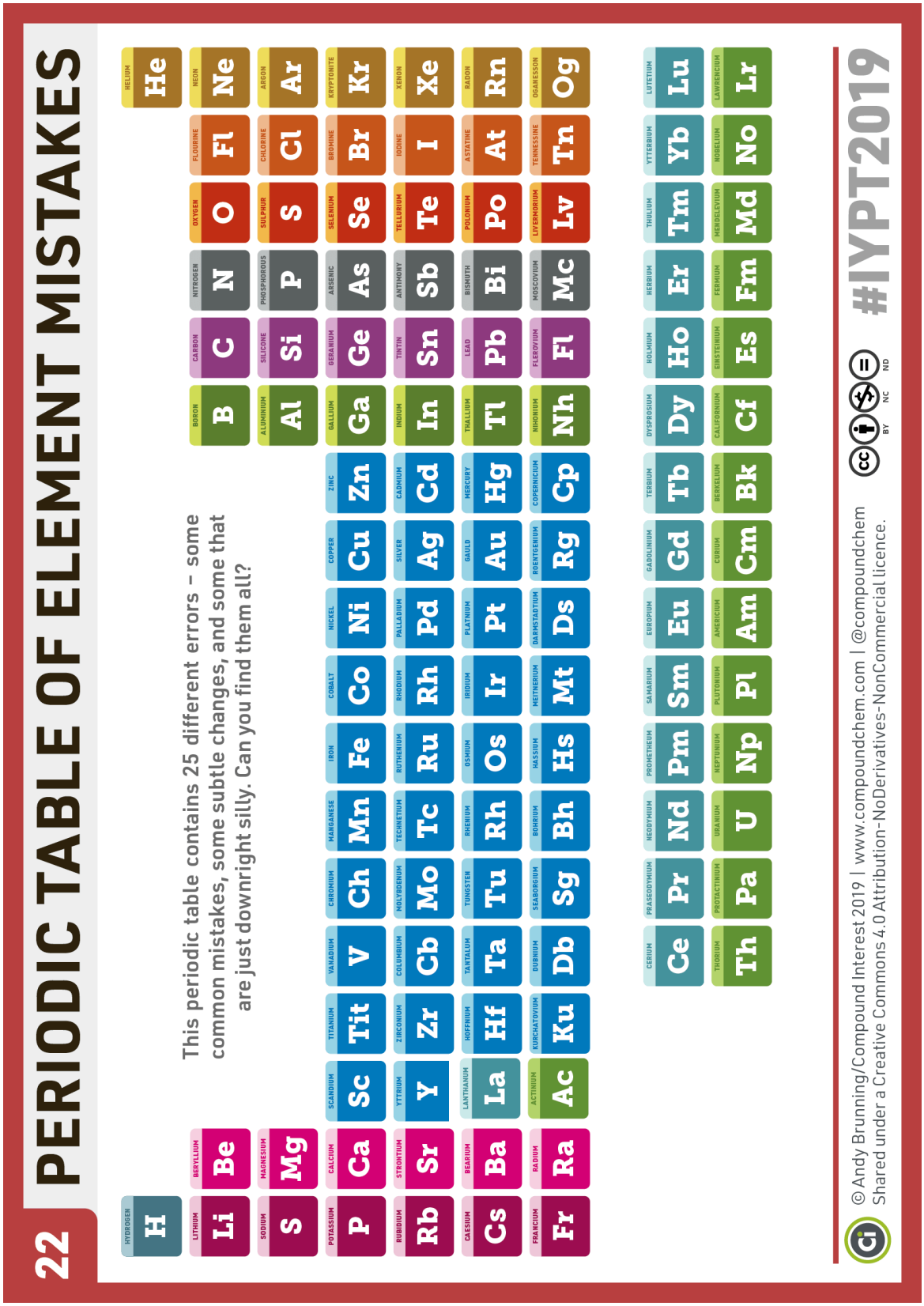
1. Circle the gases.
2. Draw squares around the liquids.
3. Put a star in the box of the elements with the highest AND a dot in the box of the elements with the lowest…
    1. atomic number (number of protons)
    2. atomic weight (number of protons + neutrons)
    3. atomic radius (size of the atom)
    4. boiling point (when the forces of atoms break)
    5. melting point (when the structure of the substance breaks)
    6. density (compactness)
    7. electronegativity (ability to steal electrons)
4. Put an exclamation mark in the boxes of the elements that have 4 or more oxidation states (number of electrons gained or lost).



Activity 2 - Periodic Table of Mistakes

Instructions: Compare the periodic table below with your class periodic table. Find 15 mistakes and list them in the space provide.

- There are more than 15 mistake on the table.
- If this table is difficult to read, you can access an electronic copy on the links page.



Mistake	Atomic Number	Correction
1		
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15		

Activity 3: Periodic Table of Mistakes Round 2

Instructions: Compare the periodic table below with your class periodic table. Find 15 mistakes and list them in the space provide.

- There are more than 15 mistake on the table.
- If this table is difficult to read, you can access an electronic copy on the links page.

THE PERIODIC TABLE OF MISTAKES

Find 25 mistakes on this Periodic Table.

1	2												13	14	15	16	17	18
1 H Helium 1.01													5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 Omg Oxygen 16.00	9 Fl Fluorine 19.00	2 H Hydrogen 4.00
3 Li Lithium 6.94	4 Be Beryllium 9.01												13 Al Aluminum 26.98	14 Se Selenium 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.06	17 Cl Chlorine 35.45	10 Ne Neon 20.18
11 Na Sodium 22.99	12 Mn Magnesium 24.31	3	4	5	6	7	8	9	10	11	12		13 Al Aluminum 26.98	14 Se Selenium 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.06	17 Cl Chlorine 35.45	18 Ar Argon 39.95
19 JK Potassium 39.10	20 Ca Calcium 40.08	21 Sc Scandium 44.96	22 Ti Titanium 47.87	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mg Manganese 54.94	26 In Iron 55.85	27 Co Cobalt 58.69	28 Ni Nickel 58.93	29 Cu Copper 63.55	30 Zn Zinc 65.38	31 Ga Gallium 69.72	32 Ge Germanium 72.63	33 As Poison 74.92	34 Si Silicon 78.96	35 Br Bromine 79.90	36 Xe Xenon 83.80
37 Rb Rubidium 85.47	38 Sr Strontium 87.62	39 Yt Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molebum 95.96	43 Tc Technetium (98)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.91	46 Pd Palladium 106.42	47 Ag Gold 107.87	48 Cd Cadmium 112.41	49 In Indium 114.82	50 Sn Tin 118.71	51 Sb Antimony 121.76	52 Te Tellurium 126.90	53 I Iodine 127.60	54 Kr Krypton 131.29
55 Cs Cesium 132.91	56 Ba Barium 137.33	57 La* Lanthanum 138.91	72 Hf Hafnium 178.49	73 Ta Tantalum 180.95	74 Tg Tungsten 183.84	75 Re Rhenium 186.21	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Silver 196.97	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium (226)	89 Ac* AACTium (227)	104 Rf Rutherfordium (267)	105 Db Dubnium (268)	106 Sg Seaborgium (271)	107 Bh Bohrium (272)	108 Hs Hassium (270)	109 Mt Meitnerium (276)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (280)	112 Cn Copernicium (285)	113 Nh Nihonium (284)	114 Fl Flerovium (289)	115 Mc Moscovium (288)	116 Lv Livermorium (293)	117 Ts Tennessine (294)	118 Og Oganesson (294)

58 Ce Cerium 140.12	59 Pr Praseodymium 140.91	60 Nd Neodymium 144.24	61 Pm Promethium (145)	62 Sm Samarium 150.36	63 Eu Europium 151.96	64 Gd Gadolinium 157.25	65 Tb Terbium 158.93	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93	68 Er Erbium 167.26	69 Tmi Thulium 168.93	70 Yb Ytterbium 173.05	71 Lu Lutetium 174.97
90 Th Thorium 232.04	91 Pa Protactinium 231.04	92 U Uranium 238.03	93 Np Neptunium (237)	94 Pu Stinkium (244)	95 Am Americium (243)	96 Cm Curium (247)	97 Bk Berkelium (247)	98 Cf Californium (251)	99 Es Einsteinium (252)	100 Fm Fermium (257)	101 Md Mendelevium (258)	102 No Nobelium (259)	103 Lr Lawrencium (262)

AACT American Association of Chemistry Teachers

Mistake	Symbol	Correction
1		
2		
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Activity 4: Making Connections and Drawing Conclusions.
Instructions: Using the various Periodic Tables on the links page, identify the elements that fit the following criteria. Reference the tables that you used to come to your conclusion.

Criteria	Answer that meet the criteria	Periodic Tables used (list numbers)
In which countries have the most elements been discovered? Name the top 3.		
Which element was discovered most recently?		
What is the least expensive element? the most expensive?		
How many elements on the periodic table don't have commercial applications?		
Where on the periodic table are the radioactive elements located?		
What elements in our body are also abundant in the earth's crust?		
Good cell phone batteries need to be made out of elements that are abundant and cheap. Which elements work?		
Which elements in batteries are also most likely to run out in the next 100 years?		
Which observable elements are colorless?		
Referencing the question above and the table you created in activity 1, what do these elements have in common?		

Which elements are essential to our body and also highly abundant in the sea?		
Trade agreements between the United States and China are complicated. Knowing this, look at table 19. Thoughts?		Table 19

Create two new interesting connections involving the information on two tables.

Criteria	Answer that meet the criteria	Periodic Tables used (list numbers)