

Symbols and Formulas

Name: _____

Part 1: Complete the table below, providing element names and symbols:

	Symbol	Name		Symbol	Name
1		Fluorine	11		Cobalt
2		Potassium	12	Ag	
3	Ca		13	N	
4		Iron	14	C	
5	Hg		15		Copper
6	Sn		16		Iodine
7		Bromine	17	Pb	
8	Cl		18		Oxygen
9		Gold	19		Magnesium
10	S		20	Al	

21) Which elements from the table above have symbols that DO NOT correspond to their English names?

Part 2: For each formula, name the elements present and give the number of atoms of each element in each compound:

1) CaCO_3 (limestone, chalk)	
2) HCl (stomach acid)	
3) C_{10}H_8 (mothballs)	
4) $\text{C}_9\text{H}_8\text{O}_4$ (aspirin)	
5) $\text{C}_8\text{H}_{10}\text{N}_4\text{O}_2$ (caffeine)	
6) NaHCO_3 (baking soda)	

Part 3: From the descriptions of the molecules given, write a formula for the elements or compounds. Make sure you make the subscripts. (Shortcut for subscripts: Ctrl-,)

1) Tetraethyl lead, what used to be in leaded fuel, has 1 lead atom, bonded to 8 carbons and 20 hydrogens.	
2) Ethanol, the alcohol in beer and wine, is 2 carbons bonded to 6 hydrogens and 1 oxygen	
3) Red fireworks typically use strontium nitrate, which has 1 strontium, 2 nitrogen and 6 oxygen	
4) Octane, the main ingredient in gasoline, has 8 carbons for every 18 hydrogens	
5) Sometimes called the peacock ore, bornite is an ore of copper with 5 coppers, 1 iron and 4 sulfurs	
6) Bauxite is the primary source of aluminum cans. Bauxite is partially made of 2 aluminums, 2 silicons, 6 oxygens and 1 hydrogen.	

Part 4: In chemistry, there are 118 different elements. However, most compounds on this planet are made of combinations of less than half of these elements. We have already used a few of the more common ones above. Below is a list of the other common elements we will use. Write out the corresponding name to the symbols below:

	Symbol	Name		Symbol	Name
1	Sb		12	Se	
2	Ne		13	Li	
3	Cr		14	He	
4	Xe		15	P	
5	B		16	Kr	
6	Mn		17	Be	
7	Cs		18	Ti	
8	As		19	Rb	
9	Ba		20	Pt	
10	Zn		21	Ar	
11	Rn		22	U	