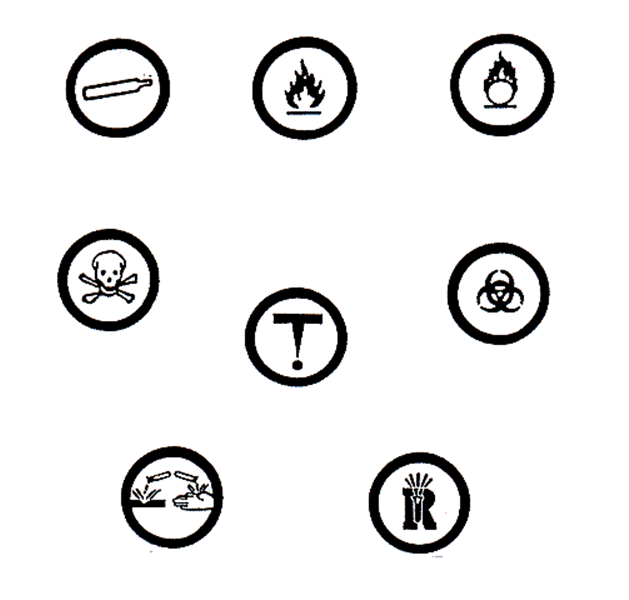
Science 3200 – Midterm Review

Definitions:

1. Chemistry
2. Matter
3. Atom
4. Element
5. Compound
6. Pure Substance
7. Mixture
8. Homogenous Mixture
9. Heterogeneous Mixture
10. WHMIS
11. MSDS
12. Chemical Property
13. Physical Property
14. Chemical Change
15. Physical Change
16. Periodic Table
17. Group
18. Period
19. Metal
20. Non-metal
21. Protons
22. Neutrons
23. Electrons
24. Nucleus
25. Energy Level Diagram (Bohr Diagram)
26. Valence Level
27. Ion
28. Cation
29. Anion
30. Ionic Compound
31. Molecular Compound

Review Questions:

1. What is the difference between an element and an atom?
2. What is the difference between an element and a compound?
3. How many different elements are in:
   1. CH4
   2. NaNO3
   3. F2
4. How many atoms are in the compounds in question #3
5. For each WHMIS symbol shown below, write what it represents



1. Write down 5 rules to obey when you go to the lab
2. List 5 different pieces of information you can find on an MSDS.
3. Give 3 examples of physical properties
4. Give 3 examples of chemical properties
5. List 5 metals and 5 non-metals
6. For each element you listed in #10, write down its group and period
7. For each element you listed in #10, find the number of protons, neutrons and electrons
8. Draw an energy level diagram for:
   1. He
   2. F
   3. Mg
   4. S
9. For each element in #13, determine the number of valence electrons
10. Identify each ion as a cation or anion:
    1. Ca2+
    2. F-
    3. O2-
    4. Na+
11. For each ion in #15, determine the number of protons, neutrons and electrons
12. Draw an energy level diagram for each element in #15
13. For each compound, identify as being ionic or molecular
    1. N2O
    2. CaBr2
    3. C2H4
    4. MnO2
    5. KCl
    6. P3Cl4
14. Determine the name for the molecular compounds listed in #18.