

### S9 Chemistry Unit Checklist

1.	I have taken the online Science Focus quizzes and the Quest A+ test for this unit.
2.	I have completed and know my vocabulary for this unit.
3. T1	What are the 8 WHMIS symbols?
4. T1	What is the difference between pure substances and mixtures? 2b. Give an example of each.
5. T1	5a. What is the difference between an element and a compound? Give an example of each. 5b. Are elements and compounds pure substances or mixtures?
6. T1	4a. What is the difference between a homogeneous and a heterogeneous mixture? Give an example of each.
7. T1	Homogeneous mixtures are usually solutions. What is a solution? Give an example of a solution.
8. T1	Why is the alloy brass considered a solution (homogeneous mixture)?
9. T1	What is the difference between the 4 types of heterogeneous mixtures: ordinary mechanical mixtures, suspensions, colloids and emulsions? Give an example of <b>each</b> .
10. T2	What is the difference between a physical and a chemical change? Give an example of each.
11. T2	11a. List 5 types of evidence we can use for chemical change. 11b. Is a change of state a chemical or physical change? Defend your answer.
12. T2	12a. What is the difference between qualitative and quantitative physical properties of substances? 12b. List 4 qualitative physical properties of matter. 12c. List 4 quantitative properties of matter.
13. T2	List 8 chemical properties of matter.
14. T3	What is the Law of Conservation of Mass? Give an example.
15. T3	What is the Law of Definite Composition? Give an example.
14. T2	List the 5 different atomic models and the scientist who made the theory.
15. T4/5	Label on a periodic table: groups, periods; metals, non-metals, and metalloids; and the 4 main groups of elements: alkali metals, alkaline earth metals, halogens and noble gases.
16. T4/5	What is the name of the scientist who invented the periodic table.
17. T4/5	List the properties of metals vs non-metals.
18. T4/5	How do you find the name of the element if you are given its symbol.
19. T4/5	What is the total # of atoms and the number of each type of atom in each of the following compounds. H <sub>2</sub> O NH <sub>3</sub> C <sub>6</sub> H <sub>12</sub> O <sub>6</sub>

20. T4/5	20a. How do you find the atomic number and atomic mass of any element? 20b. How do you determine if an element is a solid, liquid or gas? 20c. How do you find the number of protons, electrons and neutrons of any element: Ex. iron?
21. T4/5	21a. Where do you find the following parts of an atom: proton, electron, neutron? 21b. What is the charge of: protons, electrons, neutrons?
22. T6	How do you know if a compound is molecular or ionic?
21. T6	How do you write a formula for an ionic compound from its name: Ex. magnesium chloride?
22. T6	How do you write the name of an ionic compound from its formula: Ex. $\text{BaI}_2$ ?
23. T6	How do you write the formula of a molecular compound from its name: Ex. silicon dioxide?
24. T6	How do you write the name of a molecular compound from its formula: Ex. $\text{CCl}_4$ ?
25. T6	I can describe 3 differences between molecular and ionic substances.
26. T6	Which <b>bond</b> involves the transfer of electrons?
27. T6	Which <b>bond</b> involves the sharing of electrons?
28. T6	How do you find the ion name and charge of any element?
29. T6	I know the formulas for the "gens", fuels like methane and propane, and ammonia.
30. T7	In a chemical reaction what are the reactants? Products? Give an example.
31. T7	I can write a chemical word equation. Give an example.
32. T7	How do you know if a reaction is an exothermic or endothermic reaction? Give an example of each.
33. T8	33a. What is the reaction rate of a reaction? 33b. What are 5 things that can speed up a reaction? 33c. How can you slow down a reaction (give at least 4 ways)?
34. T8	What is a catalyst? Why is an enzyme called a natural catalyst? What is an inhibitor? Give an example of each.
35. T8	35a. What is the common name for a CORROSION REACTION? 35b. Write a word equation for corrosion. 35c. Why don't we like corrosion? 35d. Give 4 things we can do to prevent corrosion.
36. T8	36a. What is the common name for a COMBUSTION REACTION? 36b. Write a word equation for combustion. 36c. Why don't we like combustion? When do we like it? 36d. Give 4 things we can do to prevent corrosion.