**Chemical Formulas and Chemical Compounds Unit Objectives**

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|  | Objective/ Question | Assignment |
|  | Review Objectives:1. What things do you need to show in a calculation?
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|  | 1. What is the difference between an ionic and molecular compound?
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|  | 1. What charge does each element develop when it becomes an ion?
 | Periodic table |
|  | 1. Why do elements form ions?
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|  | 1. What is the difference between a cation and anion?
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|  | New Objectives:1. How do you name monatomic ion? (There is a difference in how cations and anions are named.)
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|  | 1. Name binary ionic compounds.
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|  | 1. What is a polyatomic ion?
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|  | 1. Given a cation and an anion, write the correct formula.
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|  | 1. Name binary molecular compounds.
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|  | 1. Name acids and bases.
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|  | 1. Explain the difference between an ionic charge and oxidation numbers.
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|  | 1. Be able to assign oxidation numbers to compounds.
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|  | 1. How can you tell how many moles are in a substance given the formula?
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|  | 1. Explain the difference between molecular mass, formula unit, and formula mass.
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|  | 1. Calculate formula mass.
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|  | 1. Explain the difference between formula mass and molar mass.
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|  | 1. Calculate molar mass.
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|  | 1. Convert from moles to grams. Convert from grams to moles.
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|  | 1. What is percent composition?
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|  | 1. Calculate percent composition.
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|  | 1. What is an empirical formula?
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|  | 1. How do you convert from percent composition to mass composition?
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|  | 1. How can you calculate an empirical formula using percents?
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|  | 1. What do you do when your mole ratio does not come out a whole number?
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|  | 1. How can you calculate an empirical formula given grams?
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|  | 1. Explain how to calculate the molecular formula.
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**Chemical Formulas and Chemical Compounds Vocabulary**

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| Word | Definition | Sentence or Picture |
| 1. **Acid**
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| 1. **Base**
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| 1. **Binary Compound**
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| 1. **Empirical formula**
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| 1. **Formula mass**
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| 1. **Monoatomic ion**
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| 1. **Nomenclature**
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| 1. **Oxidation number**
 |  |  |
| 1. **Oxidation state**
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| 1. **Percentage composition**
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| 1. **Salt**
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