

CHAPTER 7 - ALL

THINGS TO KNOW

From chapter 7

- ☐ All the vocabulary and notes from the sections we've covered in chapter 7
- ☐ Memorize polyatomic ions
- ☐ Memorize the charge/ oxidation number for groups 1, 2, and 13 - 17
- ☐ Memorize the formulas and names for the binary acids and oxyacids
- ☐ Memorize numerical prefixes
- ☐ Memorize names and formulas for common substances
- ☐ Memorize the rules for determining oxidation numbers
- ☐ Memorize the formula for finding percent composition
- ☐ Memorize the formula for finding a molecular formula

From **Chapter 3**

- ☐ Relative mass – definition and how to apply
- ☐ Average atomic mass – definition and how to apply
- ☐ Memorize Avogadro's number: 6.022×10^{23} . You can get element masses from the periodic table on the test.

From **Chapter 22**

- ☐ Types of polymers based on structure and reaction to heat
- ☐ Examples of natural and synthetic polymers
- ☐ Examples of addition and condensation polymers
- ☐ Be able to discuss applications of the properties of polymers, for example:
 - o Why are some plastics recyclable?
 - o Why are some plastics dishwasher safe and some not?
 - o Why is polyester wrinkle resistant?

THINGS TO KNOW HOW TO DO

- ☐ Write formulas for ionic compounds and name them using the Stock system
- ☐ Write formulas for binary molecular compounds and name using the prefix system
- ☐ Read a chemical formula
 - $6\text{Al}_2(\text{SO}_4)_3$ contain how many atoms or moles of Al? S? O?
- ☐ Determine oxidation numbers of each of the elements in a compound
- ☐ Determine oxidation numbers for each of the elements in a polyatomic ion
- ☐ Use the periodic table to determine the average atomic mass of an element
- ☐ Calculate formula mass (*amu*) and molar mass (*g*)
- ☐ Use a Q formula "road map" with conversion factors for these, for example:
 - mass \rightarrow moles \rightarrow atoms **or** atoms \rightarrow moles \rightarrow mass
- ☐ Convert moles to mass and mass to moles
 - Conversion factor is molar mass, you get it off the periodic table
- ☐ Convert moles to atoms and atoms to moles
 - Conversion factor is 6.022×10^{23} atoms in one mole
- ☐ Convert mass to atoms and atoms to mass
 - Mass to moles or atoms and atoms to moles or mass
- ☐ Work mass – moles – molecule problems
- ☐ Calculate percent composition
- ☐ Calculate empirical formulas
- ☐ Calculate molecular formulas

THINGS YOU KNOW YOU NEED TO PRACTICE

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