PHUHS CHEMISTRY CYCLE 3 ASSESSMENT REVIEW

CHEMICAL REACTIONS

1) **Combination/synthesis** – Describe and given a balanced example.
2) State the relationship between **combination/synthesis** and **decomposition** reactions.
3) **Combustion, complete**– Describe and given a balanced example.
4) **Combustion, incomplete**– Describe and given a balanced example.
5) Be able to **construct** and **balance** a chemical reaction from words. Give an example for this review that is not used anywhere else on this document.
6) **Double replacement (displacement)** – Describe and given a balanced example.
7) List the **five reaction types/classifications** from the notes.
8) **Rxn** – What does this stand for?
9) **Single replacement (displacement)** – Describe and given a balanced example.
10) Be able to predict products of **single and double replacement** reactions. Describe how this is done.
11) Identify these **symbols**: (s), (l), (aq), (g)

THE MOLE AND STOICHIOMETRY

12) **Actual yield** vs. **theoretical yield** – Define and give examples.
13) **Atom** – What is it? Give an example.
14) Why is a **balanced chemical equation** needed for a stoichiometry problem?
15) **Coefficients** – What are they? What is their relationship to mole ratios? What is their relationship to the number of particles in a reaction?
16) Be able to identify an **excess reactant** – Define and give an example of how it works.
17) Why are chemical reactions usually set up with an **excess reactant**?
18) **Formula unit** – What is it? Give an example.
19) Compare and contrast the **four representative particles** from the notes.
20) **Ion** – What is it? Give an example.
21) Be able to identify a **limiting reactant** – Define and give an example of how it works.
22) **Math problems** (one step)– mole-to-mole, mole-to-mass, mass-to-mole, atoms-to-moles, moles-to-atoms. Give examples for this review.
23) **Mole** – Define. It is the SI base unit of what type of measurement?
24) Be able to identify **mole ratios** from a balanced equation. Give an example for this review.
25) **Molecule** – What is it? Give an example.
26) **Percent yield** – Define and describe how it works.
27) **Stoichiometry** – Define.
28) **Stoichiometry** – Is stoichiometry dealing with qualitative or quantitative relationships? Why?
29) **Stoichiometry** –How does it relate to the Law of Conservation of Mass?

KINETIC THEORY

30) **KMT** – What is this? State the major parts of this theory.