Reading Questions 5.3 Name _____
Balancing Chemical Equations Pp. 161 – 168

1. Write the five chapter objectives here:
    a.
    b.
    c.
    d.
    e.
2. Look at Figure 5-9 on page 155. Copy the written equation at the bottom of the figure.

3. What is the name of this reaction in Figure 5-9?
4. What is the main component in natural gas?
5. What do chemical equations do?
6. Draw, color, and label Figure 5-13 on page 155. Show the equation as:
    a. Model of molecules:
    b. Words:
    c. Molecular formula:
7. What does the arrow in a chemical equation mean?
8. When the Law of Conservation of Mass is illustrated in a chemical equation, what does this mean about the equation?
9. As the following equation is written, count how many atoms of each element are reactants and products.

$$CH_4 + O_2 \rightarrow CO_2 + H_2O$$

Reactants	Products
# of C =	# of C =
# of H =	# of H =
# of O =	# of O =

10. When we balance equations, what number can't we touch?
11. Changing this results in what?
12. How are we going to balance the equation?
13. Write the balanced equation here:

14. In this equation, how many molecules of:
    a. Oxygen react?
    b. Water are formed?
    c. Carbon Dioxide are formed?
    d. Methane react?
15. Copy the “Practice Hint” from page 165 here.

16. What coefficient is never shown?
17. Balanced equations can indicate how many atoms of an element there are as well as how many molecules of a chemical there is. What else can a balanced equation describe?
18. Copy what the Law of Definite Proportions states:

19. What is the mole ratio of the formation of water? _____ H_2 : _____ O_2 : _____ H_2O
20. Copy the four summary points here:
    - ➢
    - ➢
    - ➢
    - ➢