LESSON 14

SAMPLE QUIZ & HOMEWORK QUESTIONS

Sample Quiz: Lesson 14

*Students answer quiz questions online, where they are **automatically graded**. The quizzes are designed to help the student test their own knowledge of the material. They should use the weekly comprehension quizzes as an opportunity to see where there are weaknesses in understanding so they can go back and study these areas. There will be four quarterly exams.*

These will be longer and more comprehensive tests, but the course contains study guides to help students study all the important material. The exam grades are final —grades cannot be reset without the parents' request. As a parent, you can log in to your own account dashboard and click on "Student Management" to see the grades for each quiz.

1. What type of reaction is the following equation? $2\ Fe + 3\ H_2O \rightarrow Fe_2O_3 + 3H_2$
    a. Synthesis
    b. Decomposition
    c. Single replacement
    d. Double replacement
    e. Combustion

2. What type of reaction is the following equation?
   $C_5H_{12} + 8\ O_2 \rightarrow 5\ CO_2 + 6\ H_2O$
    a. Synthesis
    b. Decomposition
    c. Single replacement
    d. Double replacement
    e. Combustion

3. What type of reaction is the following equation? $2\ NaClO_3 \rightarrow 2\ NaCl + 3\ O_2$
    a. Synthesis
    b. Decomposition
    c. Single replacement
    d. Double replacement
    e. Combustion

4. What type of reaction is the following equation?
   $CuCl_2 + Na_2S \rightarrow CuS + 2\ NaCl$
   a. Synthesis
   b. Decomposition
   c. Single replacement
   d. Double replacement
   e. Combustion

5. What type of reaction is the following equation? $4\ Li + O_2 \rightarrow 2\ Li_2O$
   a. Synthesis
   b. Decomposition
   c. Single replacement
   d. Double replacement
   e. Combustion

6. Predict the products for the following reaction: $C_7H_{14} + O_2 \rightarrow$
   a. $C_7H_{14}O_2$
   b. $CO + H_2$
   c. $CO_2 + H_2O$
   d. $C + H_2O$

7. Predict the products for the following reaction: $Mg(OH)_2 + H_3PO_4 \rightarrow$
   a. $MgPO_4 + H_3(OH)_2$
   b. $Mg_3(PO_4)_2 + H_2O$
   c. $MgH_3 + PO_4(OH)_2$
   d. $HMg + (OH)_2PO_4$

8. Predict the products for the following reaction: $Co^{2+} + NaCl \rightarrow$
   a. $CoCl_2 + Na$
   b. $NaCo + Cl_2$
   c. $CoNaCl$
   d. $Cl_2Co + Na$

9. Will the reaction in the previous problem occur?
   a. Yes
   b. No

10. Predict the products for the following reaction: $Na + O_2 \rightarrow$
    a. NaO_2
    b. NaO
    c. $O_2 + Na$
    d. Na_2O

Sample Homework Questions: Lesson 14

Students will typically be assigned homework questions to answer each week. These questions are designed to help them apply the lecture material by practicing equations or reinforcing difficult lecture topics. Your students can use their notes, textbook, other books, or online resources available to them to answer these questions.

The parent is responsible for grading these assignments. You can download an answer key in your parent dashboard that will help you with grading. For each question, we recommend assigning a grade between 0-3. Give your student 3 points if the answer looks accurate, 2 points if the work lacks important details, 1 point if it looks largely inaccurate, and 0 points if the work was incomplete or was hastily completed.

Below is an example of what homework questions for lesson 14 look like, along with the parent answers included in red.

1. Identify the type, complete, and balance each of the following reactions.
   a. $Ca_{(s)} + O_{2(g)} \rightarrow$
      $2\ Ca_{(s)} + O_{2(g)} \rightarrow 2\ CaO$ synthesis
   b. $Na_2O \rightarrow$
      $2\ Na_2O \rightarrow 4\ Na + O_2$ decomposition
   c. $Al_4C_{3(s)} + H_2O_{(l)} \rightarrow$
      $Al_4C_{3(s)} + 6\ H_2O_{(l)} \rightarrow 3\ CH_4 + 2\ Al_2O_3$ double replacement
   d. $Pb^{2+} + Hg(NO_3)_2 \rightarrow$
      $Pb^{2+} + Hg(NO_3)_2 \rightarrow Hg + Pb(NO_3)_2$ single replacement
   e. $C_6H_{10} + O_2 \rightarrow$
      $2\ C_6H_{10} + 17\ O_2 \rightarrow 12\ CO_2 + 10\ H_2O$ combustion
   f. $Cl_{2(g)} + KF_{(aq)} \rightarrow$
      $Cl_{2(g)} + 2\ KF_{(aq)} \rightarrow 2\ KCl + F_2$ single replacement

2. Identify the two single replacement reactions above, and tell whether or not they will occur.
   Letters d and f are single replacement reactions. Letter d will occur, and letter f will not occur.