Chemistry Pt. 2 Study Guide: Chemical Reactions w/ Natural Resources Updated 2020

Section 1: Vocabulary: Write the definitions of the following terms. **No** pictures are required.

|  |
| --- |
| 1 – Molecule 2 – Compound 3 – Element 4 – Atom5 – Product 6 – Reactant 7 – Law of Conservation of Mass8 – Catalyst 9 – Endothermic Reaction 10 – Exothermic Reaction  |

Section 2: Short Answers: answer the questions to the following questions. You **do not** have to write the questions. Be as thorough as possible.

11 – Name 3 examples of a physical change.

12 – Name 3 examples of a chemical change.

13 – Why is NaCl considered to be a pure substance but NaCl + H2O is not?

14 – How do the properties of a product compare to the properties of the reactants in a chemical reaction?

15 – Name 4 ways to identify that a chemical reaction has occurred?

16 – What does an arrow indicate in a chemical reaction? 2H2O2 🡪 2H2O + O2

17 – In the chemical formula 3H2, identify the subscript. Identify the coefficient. How many atoms of hydrogen are present?

18 – How many atoms are in the chemical formula C6H12O6?

19 – What happens to molecules as temperature changes?

20 – Explain what happens to the total amount of mass during a chemical reaction.

21 – After a chemical reaction, if the mass of the product is less than the mass of the reactants, what might explain this?

22 – Describe 3 of the 4 ways in which you can speed up the rate of a chemical reaction.

23 – What is the difference between matter and energy? Provide one example of each.

24 – In the chemical reaction 2H2O2 🡪 2H2O + O2, identify the reactants. Identify the products.

25 – What happens during a chemical reaction?

26 – What is a renewable energy resource? Nonrenewable?

27 – Know the definitions of the 5 main types of renewable energy. (solar, wind, hydropower, biomass & geothermal)

28 – What does “sustainable” mean?

29 - What kind of waste does nuclear energy produce?

30 – What kind of waste do fuels made from fossil fuels produce? (coal, oil (a.k.a. petroleum), gasoline, propane, natural gas)

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