Chemical Reactions Unit Test Study Guide

**Vocabulary**- Find definitions for the following words from your fill in notes/Edgenuity lessons.

* Chemical change
* Exothermic reaction
* Endothermic reaction
* Activation energy
* Limiting reactant
* Excess reactant
* Reaction rate
* Catalyst
* Radioactive decay

**Study Questions-** Use your fill in notes/Edgenuity lessons to answer the following questions

1. Review the 4 biomolecules- their monomers, functions and examples.
2. List and describe the clues to tell when a chemical change has taken place.
3. In a chemical equation, which side contains the reactants and which side contains the products? What does an arrow mean?
4. What do the letters g, s, l, and aq mean in parentheses in a chemical equation?
5. Practice balancing chemical equations by completing 5 examples.
6. What is the law of conservation of mass?
7. Can a balanced chemical equation tell you everything you need to know about a reaction? If no, what information is missing?
8. What type of reaction is photosynthesis (endothermic or exothermic)? How do you know? How about cellular respiration?
9. What are the products and reactants of cellular respiration? Photosynthesis? How are they related?
10. Describe and give an example for each of the 5 classifications of reactions. Be able to identify each.
11. State the kinetic theory of matter.
12. What factors affect the rate of a reaction? How can you speed up a reaction rate?
13. Create 2 practice problems in which you calculate the percent yield of a reaction.
14. Describe the three different types of radioactive decay.
15. Describe the two types of nuclear reactions (fusion and fission).
16. Why is nuclear energy so controversial? Why is nuclear energy so useful?

Click here to take the practice test: <https://forms.office.com/Pages/ResponsePage.aspx?id=j_Z4Rc2G-UqzF5Pjgmyg9T-tHmWR88dOo_GLPwumKIxUOEk3VzFKSkNHVVhUTjJYU1VFNFI0TklLVy4u>

If you need more help/practice:

* Edgenuity practice lessons: SC.912.P.8.11, SC.912.P.8.8, SC.912.P.12.12, SC.912.P.8.12, SC.912.P.10.12
* Balancing equations doc: [https://miamidadeschools-my.sharepoint.com/:w:/g/personal/327735\_dadeschools\_net/ERqwW3cVTxFGrvbVhxsgCnABbylO8k9B0fXaymMHMv\_0cw?e=I088zO](https://miamidadeschools-my.sharepoint.com/%3Aw%3A/g/personal/327735_dadeschools_net/ERqwW3cVTxFGrvbVhxsgCnABbylO8k9B0fXaymMHMv_0cw?e=I088zO)
* Types of radioactive decay: <https://www.youtube.com/watch?v=YYnfLcHDbZ8>
* Percent yield: <https://www.youtube.com/watch?v=sQf4hzOGEF0>