Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chemical Reactions Webquest

***WEBSITE 1: Use the following website to answer the questions***

<http://www.britannica.com/EBchecked/topic/108802/chemical-reaction>

1. What is a chemical reaction?
2. Give 3 examples of chemical reactions.
3. \_
4. \_
5. \_
6. Name two ways that a physical change is different from a chemical reaction.
   1. \_
   2. \_
7. Who discovered 33 elements, which led to the idea that chemical reactions involve the combination of elements, and encouraged others to pursue chemistry as a quantitative science?
8. What other scientist’s work was crucial to the history of the chemical reaction?

*Click to page Next Page*

1. What is the Law of Conservation of Matter?
2. What does it mean to have a chemical equation that is “balanced”?

***WEBSITE 2: Use the following website to answer questions***

<http://chemistry.about.com/od/chemicalreactions/a/Combustion-Reactions.htm>

1. What is a **combustion** reaction?
2. What is the general form of a combustion reaction?
3. Give one example of a combustion reaction.

***WEBSITE 3: Use the following website to answer questions***

<http://www.education.com/science-fair/article/chemical-reations-absorb-release-energy/>

1. What does the Greek root *“therm”* mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What does the Greek root *“endo”* mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What does the Greek root *“exo”* mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What is an endothermic reaction? Give an example of an endothermic reaction.
5. What is an exothermic reaction? Give an example of an exothermic reaction.

**Website 4: Go to** [**http://www.chem4kids.com/files/react\_rates.html**](http://www.chem4kids.com/files/react_rates.html)

1. The rate of reaction is the speed at which a reaction happens. Describe the difference between what is happening during a reaction with a low rate and a reaction with a high rate.
2. What is the collision theory?
3. Concentration, Temperature & Pressure can affect the rate of a reaction. Fill in the table below to describe how they affect the rate of reaction, and also how they relate to collision theory.

|  |  |  |
| --- | --- | --- |
| Concentration | Temperature | Pressure |
| How does it affect rate of reaction | How does it affect rate of reaction | How does it affect rate of reaction |
| How does it relate to collision theory? | How does it relate to collision theory? | How does it relate to collision theory? |

**SCROLL BACK UP TO THE TOP OF THE PAGE. ON THE MENU TO THE RIGHT, CLICK ON CATALYSTS AND INHIBITORS**

1. Chemical reactions need energy to occur. Describe what a catalyst and inhibitor do to a chemical reaction and how they each relate to energy.

|  |  |
| --- | --- |
| Catalysts | Inhibitor |
| How does it relate to energy? | How does it relate to energy? |

**Website 5: Go to** [**http://www.chemguide.co.uk/physical/basicratesmenu.html#top**](http://www.chemguide.co.uk/physical/basicratesmenu.html#top) **to learn about surface area…you can click on the others to double check your answer to the previous questions as well.**

**surface area**

1. Increasing the surface area will \_\_\_\_\_\_\_\_\_\_\_\_\_ the reaction rate.
2. How do you increase something’s surface area?
3. Draw a picture to demonstrate this concept: