Name _____ Period _____ Date _____

Your Progress:

- Mastery
- Proficient
- Developing
- Beginning

Lesson 8: How Does Alcohol Burn?

Activity 8.3

Purpose

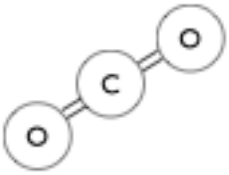
In this activity we will construct a molecular model of the reaction we witnessed when alcohol is burned.

Instructions

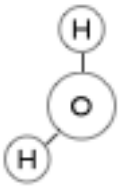
9. Locate the page labeled "Parts for Constructing the Products"

10. Cut out each individual atom from the oxygen and alcohol molecules. You will glue these atoms to the page where it is labeled "Model of Products".

11. Join two oxygen atoms to a carbon atom to form as many carbon dioxide molecules as possible. Each one should look like this:



12. Join two hydrogen atoms to an oxygen atom to form as many water molecules as possible. Each one should look like this:



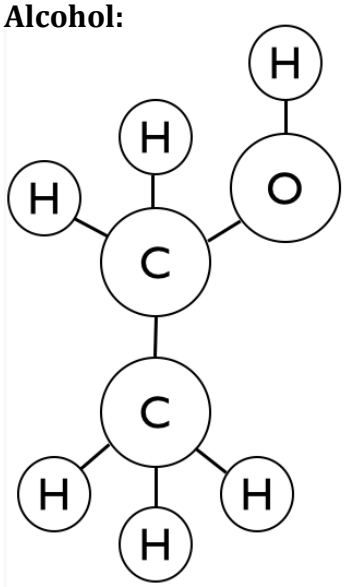
13. Use the model equation to help you construct a **word equation.**

14. Use the word equation, model equation and the following formulas to create a **chemical equation**.

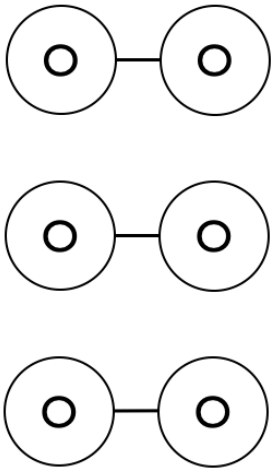
- Oxygen O_2
- Alcohol CH_3CH_2OH
- Carbon Dioxide CO_2
- Water H_2O

Model of Reactants

Alcohol:



Oxygen:



Do not cut the atoms out from this page.

Model of Products

Word Equation

_____ + _____ → _____ + _____

(Reactants) **(Products)**

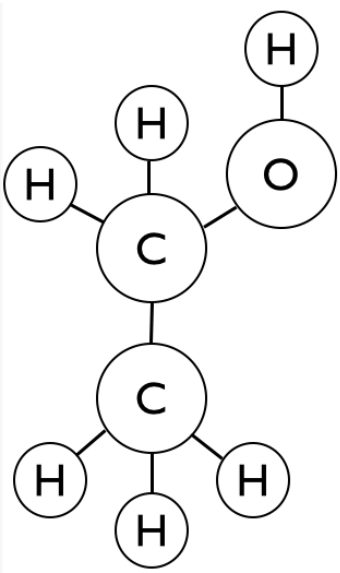
Chemical Equation

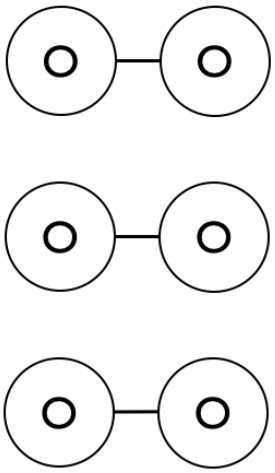
_____ + _____ → _____ + _____

(Reactants) **(Products)**

Parts for Constructing the Products

Cut apart these pieces according to the instructions and glue them back down on the previous page where it says “Model of Products.”





Cut the atoms out from this page.