

Lesson 10: What Happens During Electrolysis?

Activity 10.2

Purpose

In this activity we will construct a molecular model of the reaction we witnessed in the video about electrolysis.

Instructions

Your Progress:

- Mastery
- Proficient
- Developing
- Beginning

15. Locate the page labeled “Parts for Constructing the Products”

16. Cut out each **atom** from the page.

17. Locate the empty space labeled “Model of Products”.

18. Use the atoms you cut apart to create as many Hydrogen molecules as possible. Each molecule should look like this:



19. Use the remaining atoms to create as many Oxygen molecules as possible. Each molecule should look like this:



20. Compare the model you started with to the model you created. These two models form the **model equation**.

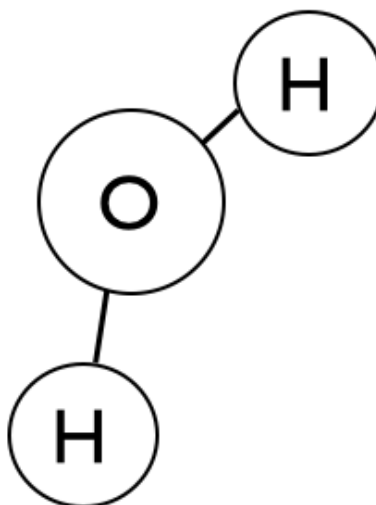
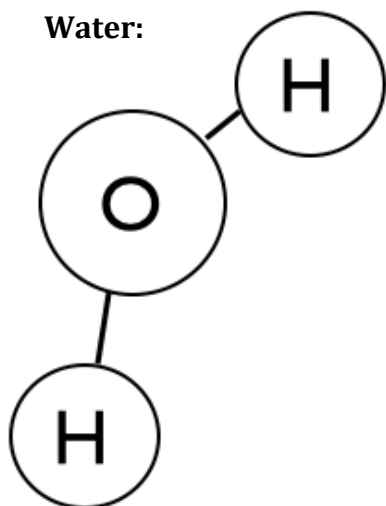
21. Use the model equation to help you construct a **word equation**.

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

- | | |
|------------|--------|
| • Hydrogen | H_2 |
| • Oxygen | O_2 |
| • Water | H_2O |

Model of Reactants

Water:



Do not cut the atoms out from this page.

Model of Products

Word Equation

_____ → _____ + _____
(Reactant) (Products)

Chemical Equation

_____ → _____ + _____
(Reactant) (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."

