

Rusting Wool

Section: Basics of Chemical Reactions

Name: _____

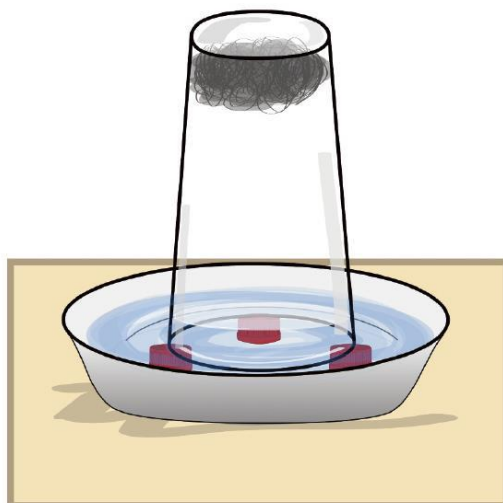
Date: _____

Inquiry Question

Write down what you'll be learning today! What do you want to understand?

Procedure

1. Moisten the steel wool with water and shake off any excess.
2. Gently push the steel wool pad to the bottom of the cup or graduated cylinder (without squeezing the fibers back together too much). You can tape it to the cup to stay in place if needed.
3. Turn the cup/graduated cylinder over, with the steel wool still inside.
4. Fill the bowl with water.
5. Place the 3 bottle caps near the center of the bowl. Rest the overturned cup/graduated cylinder on the bottle caps so its mouth is submerged in the water but is raised off the bottom of the bowl.
6. Ensure the water level in the bowl is the same as the water level in the cup. If it is not, use the straw to add more air into the cup until the water levels are equal.
7. Mark the starting water level on the cup with a crayon, marker, or tape.
8. Leave the experimental setup for 2-3 days. Come back and observe any changes that have taken place.



Observations, Data Collection & Analysis

Write down your observations below.

1. Draw the original setup.

2. Make a prediction: what do you think will happen over the next few days?

3. Create a chart to track the height of the water over time. Record your observations of the water level at different time intervals. (Measure the height of the mark on the glass in centimeters using a ruler or using the markings on the graduated cylinder.) After 2-3 days, has the water level changed? If so, how? Why might this have happened?

4. Graph the data on paper. Do you notice a relationship?

5. After 2-3 days, has the water level changed? If so, how? Why might this have happened?

6. What is causing the water level to change inside the glass?

7. Write down any other changes you noticed inside the glass. What do you think caused the change?

8. What substance forms when iron and oxygen interact in moist air? (What is its chemical name? What is its common name?)
