



Edible Erosion

Earth is made of tons of rocks, all changing and moving in the smallest ways. Over time, these changes can create mountains and valleys to make a whole new world! This process takes thousands of years and can be hard to see. In this experiment, you will use a cookie instead of a rock to help you see the weathering (breaking into pieces) and erosion (moving) happening to real rocks right under our feet.

Hypothesis

You will be using water and a toothpick to weather (break down) and erode (move) a cookie. Write your hypothesis, or guess, of what will happen as you pour water onto your "cookie rock" and weather it with your toothpick.

Materials

- Any cookie of your choice (This is your rock!)
- A plate
- A bowl
- A cup full of water
- Toothpick or something you can use to poke your "cookie rock"

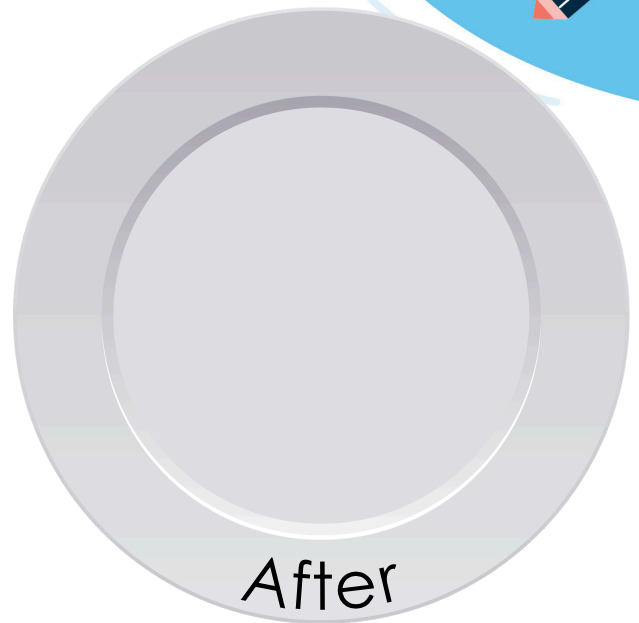
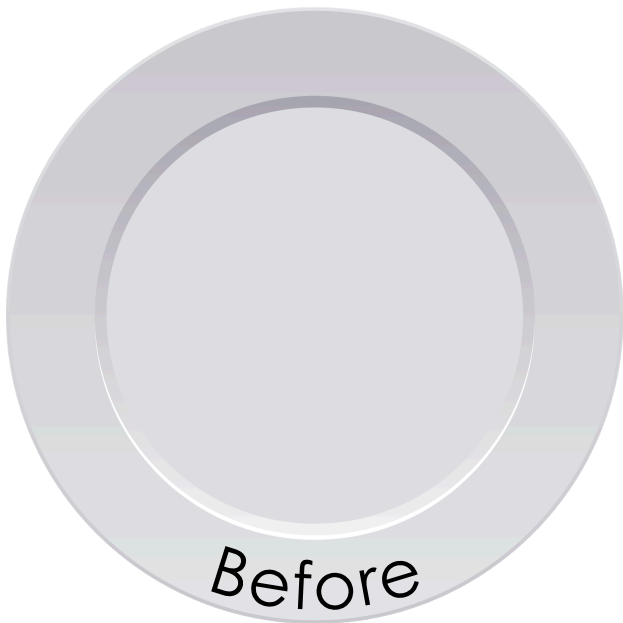




Experiment

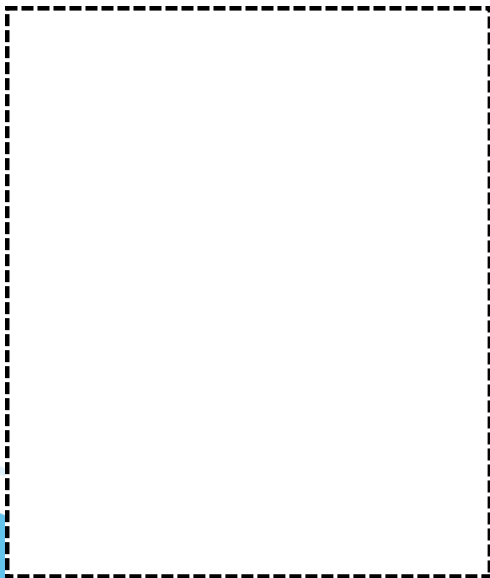
1. Gather your materials.
2. Draw a picture of your cookie on the “before” plate on the next page.
3. Place your cookie on your plate and poke it ten (10) times with your toothpick. On the next page under “1st Time” draw how much the cookie weathers (breaks apart).
4. Hold your cookie over your bowl and use your cup to gently pour water onto your cookie for one second.
5. Place the cookie back onto your plate and poke it ten (10) more times. Draw what your cookie looks like now under “2nd Time”
6. Repeat steps 3 and 4 again and draw what your cookie looks like now under “3rd Time”.
7. Place your cookie onto your plate and carefully tilt the plate to watch the cookie crumbs erode (move away from the cookie) down the plate. Draw what the cookie looks like now on the “After” plate on the next page.

Observations



Draw what your cookie looks like each time you weather it. Circle the crumb count word that matches how many crumbs eroded onto your plate.

1st Time

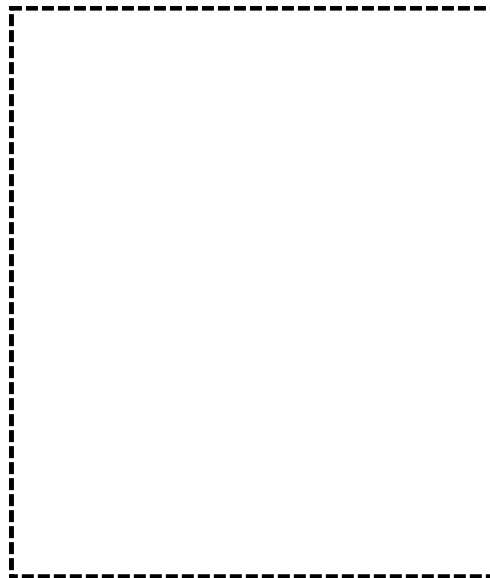


Crumb Count



low medium high

2nd Time

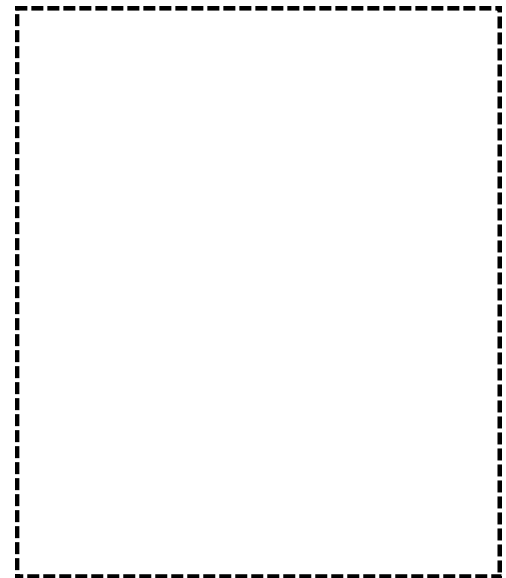


Crumb Count



low medium high

3rd Time



Crumb Count



low medium high



More Research

1. Look up three (3) different ways rocks can be weathered.

1.

2.

3.

2. Why do humans want to prevent erosion?

3. What are two ways we can prevent eroded materials (like dirt and sand) from entering our water?

1.

2.
