

# 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! However, 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.

## Guess

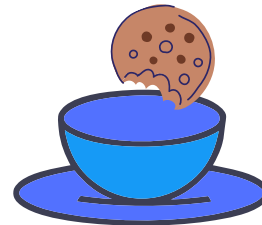
You will be using water and a toothpick to weather (break down) and erode (move) a cookie. Write your hypothesis, or guess, of what will happen as you pour water onto your "cookie rock" and weather it with your toothpick.

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## Materials

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



## Experiment

1. Gather your materials.
2. Place your cookie on your plate and poke 15 times with your toothpick. On page two, draw how much the cookie weathers (breaks apart).
3. Fill your cup with water, hold your cookie over your bowl and gently pour water onto your cookie for one second.
4. Place the cookie back onto your plate and poke it ten more times. On page two, draw what your cookie looks like now. Make a note of crumbs eroding (moving) into your bowl as well!
5. Repeat steps 3 and 4 two more times. Moving the cookie to the bowl, pouring water, moving back to the plate, poking and then drawing your observations.
6. Place your cookie onto your plate and carefully tilt. Watch your weathering at work as cookie rock crumbs erode away down your plate!

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## Observations

Draw what your cookie looks like each time you weather it. Then circle low, medium, or high in your crumb count based on how many crumbs eroded onto your bowl or plate.

1st time

2nd time

3rd time



low medium high



low medium high



low medium high

Draw how your cookie rock looked before you weathered it AND how it looked at the very end!

**Before**

**After**

## Extra Fun: Be a Researcher!

Look up three different ways rocks can be weathered.

1.

2.

3.

When we have no protection from erosion and weathering, bad things like landslides, a mass of earth falling down, can happen. Research two ways we can prevent erosion and protect our water.

1.

2.