

Do you know what the word erosion means?

Erosion is the process when something is worn away by water, wind or other natural materials over time. Although rocks are generally very hard, they can become eroded (worn away).

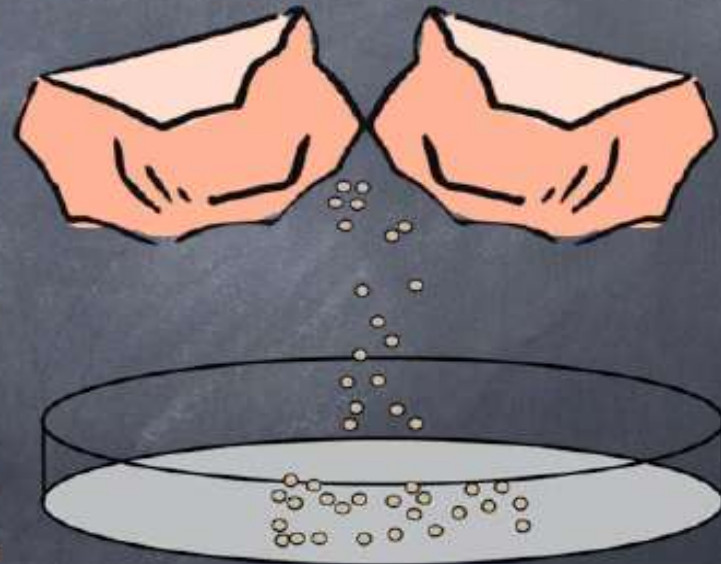


This is the Grand Canyon in America. Over millions of years, water has eroded the rocks to cause these formations and valleys.

How do you think we could set up an experiment to test different rocks to see how much they wear away?

One way you could do this would be to rub two of the same rocks together over a clear container to see how much of the rock erodes and lands in the container as dust.

To make this a fair test you would have to rub the rocks for the same amount of time for each test and using the same force. It wouldn't be a fair test if you rubbed one set of rocks together really hard and the other set really softly.





Wind



Rain

Weathering

Freeze

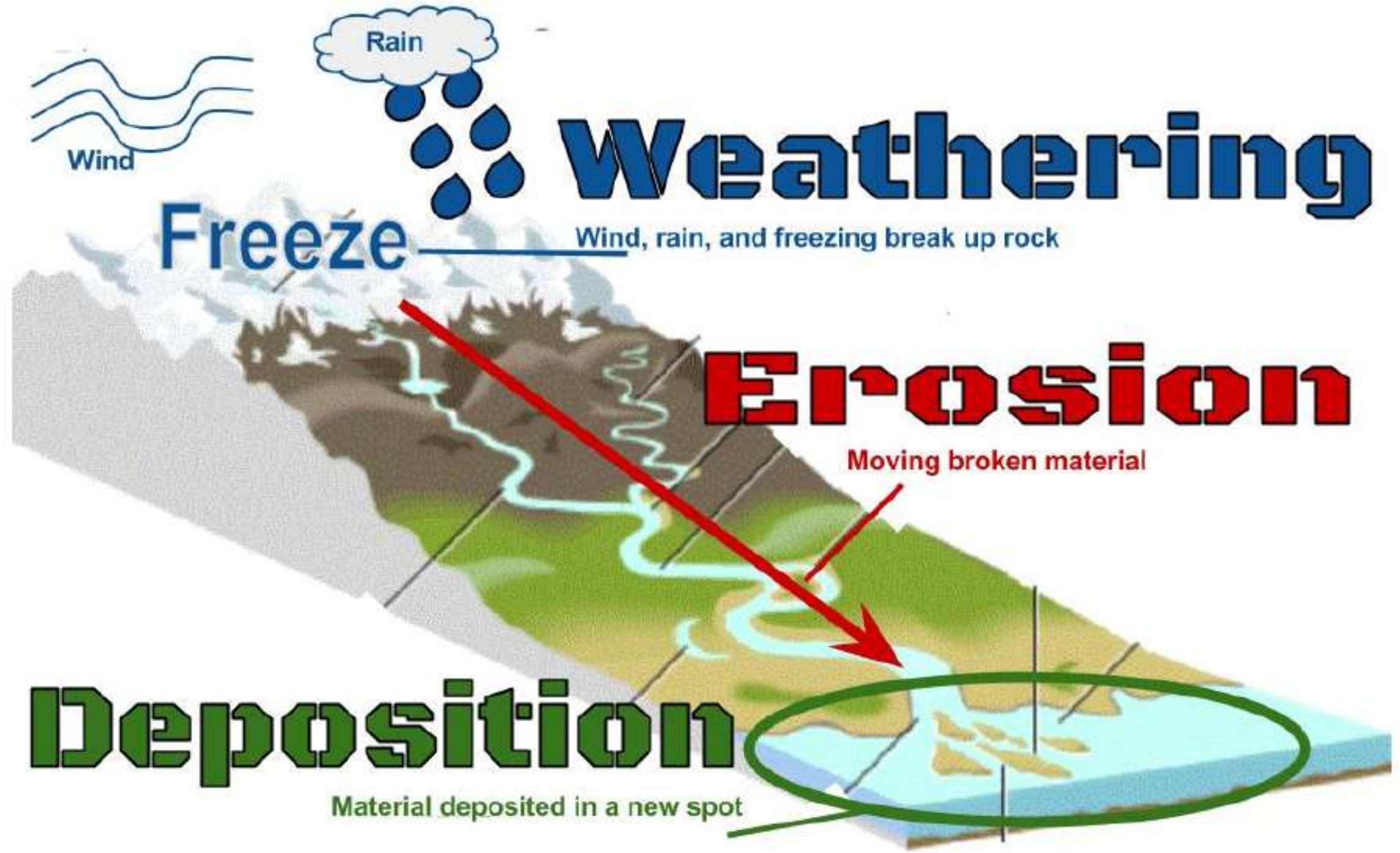
Wind, rain, and freezing break up rock

Erosion

Moving broken material

Deposition

Material deposited in a new spot





Our Ever-Changing Earth

W. E. D.

Weathering

The **BREAKING DOWN** of rock.
Weathering agents include:

Water Ice
Wind Animals
Growing Plants



Erosion

The **MOVEMENT** of sediment from broken rock. Erosion agents include:

Water Ice
Wind Gravity



Deposition

The **DROPPING** of sediment in a **NEW** place. Examples of deposition are:

Formation of an island
Sand dunes



Weathering Erosion

The process of **breaking** large rocks into smaller rocks over time.

Both

- **Wind**
- **Ice**
- **Gravity**
- **water**

The **movement** of weathered rock and soil from one place to another



Weathering is like the hammer.



Erosion is like the truck.



THEME: Learn about weathering and erosion!

Here's a simple Science experiment for you to enjoy:

Biscuit weathering and erosion!



You will need:

- A cookie or biscuit (x 3)
- water
- A toothpick, pen, pencil

Method:

- Be the wind! Blow on the biscuit (use a straw if you have one).
- Be the animals/plants! Use the toothpick (or a pen or pencil) to break the biscuit (rock).
- Be the rain! Drop water onto the biscuit (rock).

Experiment!

Pretend you're weathering the biscuit (rock!) using different forms and observe the changes each time!

Fair test:

To make it a fair test, you could time 1 minute before you stop and observe your results for each one.

Make erosion happen!

After each minute of 'weathering' your biscuit, you can show erosion by blowing the broken pieces/ crumbs until they move (This movement is called erosion!).

Results table:

You should record your results in a table like this to show your observations and conclusions.

Type of Weathering	Observation after 1 minute (Describe what happened and draw a picture)
<u>Air:</u> wind	
<u>Toothpick:</u> Animals and plants	
<u>Water:</u> rain	

Conclusion:

Which type of weathering caused the greatest amount of erosion?
How do you know?