

Lab: Weathering ...

Follow the directions for each investigation to answer the following questions.

1 – Chalk it up

Supplies: chalk, sandpaper, hand lens

1. Look at the chalk and sandpaper with a hand lens. Draw and describe what you see.
2. Carefully scrape the chalk across the sandpaper 3 times. Look at the chalk and sandpaper again using the hand lens. Draw and describe what you see.
3. Which is harder, the chalk (calcite) or the sandpaper (quartz)? How do you know?
4. What caused the changes you observed?
5. How is this like weathering?
6. What would happen if the wind blew sand against a chalk wall?
7. Is this an example chemical or mechanical weathering? Explain your answer.

2 – Chalk Away

Supplies: beaker, vinegar

1. What do you think will happen if you put chalk in a cup of vinegar?
2. Carefully observe your chalk, describe its texture.
3. Place the chalk in a beaker and pour enough vinegar to barely cover the chalk.
4. Draw and describe what is happening to the chalk while it is in the vinegar.
5. After 5 minutes, take the chalk out and rinse it carefully with water. Draw and describe the chalk.
6. How is this like weathering?
7. Is this an example chemical or mechanical weathering? Explain your answer.

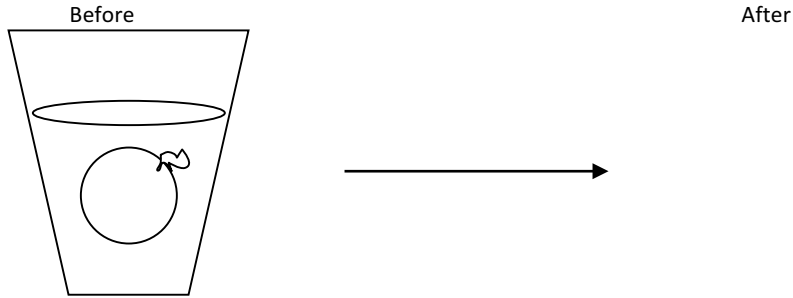
3 – Shake it Up

Supplies: film canister, sugar cube

1. Place a sugar cube into a film canister. Draw and explain how the sugar cube looks.
2. Shake the film canister rapidly 20 times; pour out the contents onto the table.
3. Draw and explain what happened to the sugar cube.
4. How does this show weathering?
5. Is this an example of chemical or mechanical weathering? Explain your answer.

4- Ice Wedging

A water balloon has been placed in a cup with plaster and placed in the freezer overnight. The result is on the demo table in the front of the lab.



Draw what the plaster looks like after it has been frozen.

1. How was our model different from ice wedging in nature?
2. Why is ice wedging a form of weathering?
3. What does water do when it freezes?

...& Erosion

Your teacher will play a video on erosion. As you watch the video, you will draw before and after pictures and answer the following questions:

Wave Action	Before	After	What happens to the beach as the water crashes into it?
Wind Action	Before	After	Why doesn't the wind blow the larger rocks away?
River Action	Before	After	Where does the sand go that was in the river?
Erosion on a Mountain	Before	After	Describe the shape change of the mountain as "rain" falls on it.
Mountain with Trees	Before	After	Why does the tree side of the mountain not erode?