Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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? How is it different?
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? How is it different?
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? How is it different?
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.

Before After

Before

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? |