

Name: _____ Date: _____ Period: _____

Physical or Chemical Weathering

Research:

Define physical weathering – _____
_____.

Name 3 different kinds of physical weathering.

a. _____

b. _____

c. _____

Define chemical weathering – _____
_____.

Name 3 different kinds of chemical weathering.

a. _____

b. _____

c. _____

LAB 1

Question: What will happen to a piece of colored chalk if we mix it with salt for four minutes? What will happen to the salt?

Hypothesis:

If I _____,

then _____

(will happen). Explain why you think this. _____

Independent Variable: _____

Dependent Variable(s): _____

Materials:

- 1 small zip-lock bag
- 1 piece of colored chalk
- 3 Tablespoons of salt
- Timer

Procedure:

1. Carefully observe the shape of the piece of chalk. Are the edges rough or smooth? Draw a picture on the lab sheet of the chalk's shape.
2. Put the piece of chalk in the bag with all of the salt. Carefully rub the contents of the bag between your hands for 4 minutes making sure that the chalk is mixed throughout the bag of salt.(each student can rub for one minute). **Be careful that the bag stays sealed.
3. Write down observations on the lab sheet and draw a picture about what happened to the chalk and salt.

Data: Labeled diagrams about what happened:

Chalk before the experiment:

Chalk after the experiment:

Description of chalk:	Description of chalk:
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Observations: What do you think happened? Describe what you saw.

Conclusion: Based on your data, answer the following questions.

Were the changes you observed the result of chemical or physical weathering?

Explain WHY you think the change was chemical or physical.

LAB 2

Question: Will chalk weather more in vinegar or in water?

Hypothesis:

If I _____,

then _____

(will happen). Explain why you think this. _____

Materials:

- 2 small beakers
- 1 piece of chalk
- Vinegar
- Water

Procedure:

1. Break the piece of chalk into two equal pieces. Carefully observe the shape of each piece of chalk. Are the edges rough or smooth? Draw a picture on the lab sheet of each chalk's shape.
2. Pour some water into the first beaker. Pour the same amount of vinegar into the second beaker.
3. Put a piece of chalk into each beaker.
4. Write down observations on the lab sheet and draw a picture of what happened to each piece of chalk.

Data: Labeled diagrams about what happened:

Chalk before the experiment:

Chalk after the experiment:

Chalk for the water: (picture and description)	Chalk from the water: (picture and description)
Chalk for the vinegar: (picture and description)	Chalk from the vinegar: (picture and description)

Observations: What do you think happened? Describe what you saw.

Independent Variable: _____

Dependent Variable(s): _____

Conclusion: Based on your data, answer the following questions.
Were the changes you observed in the beaker with the water the result of chemical or physical weathering?

Explain WHY you think the change in the beaker of water was chemical or physical.

Were the changes you observed in the beaker with the vinegar the result of chemical or physical weathering?

Explain WHY you think the change in the beaker of vinegar was chemical or physical.

What is the difference between physical and chemical weathering?