Name: _____ Date: _____ Period: _____

Activity 1 – Effects of Water on Rocks

Question: How does water affect rocks?

Hypothesis:

_____

_____

Procedure:

- Materials: 2 rock samples, carbonated water, tap water, beaker or measuring cup, 2 clear plastic cups, clock or timer
- Use marker to label cups: carbonated water and tap water.
- Gently place one rock sample in each cup.
- Pour the same amount of carbonated water and tap water in labeled cups.
- Observe each rock sample and record your observations below. Make further observations after 10 minutes and again after 48 hours.

Data/Results:

Water Type	After 10 Minutes	After 48 Hours
Tap Water		
Carbonated Water		

What did you observe happen to the rock samples in the two types of water?

How might this relate to weathering of rocks in nature? What type of weathering (chemical or mechanical) is being demonstrated in this model?

Activity 2 – Effects of Water on Steel Wool

Question: How does water affect steel wool?

Hypothesis:

_____

_____

Procedure:

- Materials: water, steel wool, clear plastic cup, clock or timer
- Place steel wool inside the cup.
- Cover with water.
- Observe and record initial observations below.
- Make and record further observations after 10 minutes and again after 48 hours.

Data/Results:

Initial Observations	After 10 Minutes	After 48 Hours

What did you observe happen to the steel wool in the water?

How might this relate to weathering of rocks in nature? What type of weathering (chemical or mechanical) is being demonstrated in this model?

Activity 3 – Effects of Acid Rain (Vinegar) on Copper (Pennies)

Question: How does vinegar affect copper pennies?

Hypothesis:

_____

_____

Procedure:

- Materials: 2 pennies, 2 clear plastic cups, white and brown vinegar, beaker or measuring cup, clock or timer
- Place a penny in each cup.
- Pour white vinegar over the penny in one cup and brown vinegar in the other. Be sure to use the same amount of each.
- Observe and record initial observations below.
- Make and record further observations after 5 minutes.

Data/Results:

Type of Vinegar	Initial Observations	After 5 Minutes
Brown Vinegar		
White Vinegar		

What did you observe happen to the pennies in the different vinegars?

How might this relate to weathering of rocks in nature? What type of weathering (chemical or mechanical) is being demonstrated in this model?

Activity 4 – Effects of Gravel on Sugar Cubes

Question: How does gravel affect sugar cubes?

Hypothesis:

_____

_____

Procedure:

- Materials: 2 sugar cubes, gravel, plastic spoon, baby food jar with lid, clock or timer
- Place 2 sugar cubes in jar.
- Using plastic spoon, put 2-3 spoons of gravel in jar.
- Put lid on jar and shake for 2 minutes. Record observations below.
- Shake jar for 3 more minutes and record observations.
- Shake jar for an additional 3 minutes and record final observations.

Data/Results:

After 2 Minutes	After 5 Minutes	After 8 Minutes

What did you observe happen to the sugar cubes?

How might this relate to weathering of rocks in nature? What type of weathering (chemical or mechanical) is being demonstrated in this model?