

# The Effects of Acid Rain On Building Materials

## Purpose:

In this investigation, you will determine what building materials would be most affected by acid rain.

## Hypothesis:

If acid rain comes into contact with building materials, then

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## Materials:

- 2 Small pieces of limestone, marble, granite, sandstone
- 8 Containers
- Vinegar
- Tap Water

## Procedure:

1. Fill half of the containers  $\frac{2}{3}$  full of vinegar. Fill the other half  $\frac{2}{3}$  full of tap water.
2. Put the correct piece of building materials into each jar.
3. Observe the effects of vinegar and tap water on the building materials in each jar. Record your observations in the chart.
4. Record another set of observations after 15 minutes.
5. Record another set of observations after 25 minutes.
6. Let the jars sit overnight. Record your last set of observations.
7. Answer the questions.



Name \_\_\_\_\_

### Tap Water

	Initial	After 15 Min.	After 25 Min.	After 24 Hours
Limestone				
Marble				
Granite				
Sandstone				

### Vinegar

	Initial	After 15 Min.	After 25 Min.	After 24 Hours
Limestone				
Marble				
Granite				
Sandstone				

**On your own paper or on the back of this paper, answer these questions using complete sentences:**

1. What effect does the vinegar have on each of the building materials?
2. What effect does the tap water have?
3. Which samples show that a change has taken place in the rock? Why do you think this is the case?
4. What evidence supports the idea that a chemical change has occurred?
5. Explain how acid rain forms?
6. What is the effect of acid rain on building materials?
7. What building materials would you choose if you lived in a large city and wanted to build a house? Give reasons for your answer.

Name \_\_\_\_\_

1.

2.

3.

4.

5.

6.

7.