Building Stones of the United States: NAME _____
The NIST Test Wall

*NOTE: Start NETSCAPE (or Internet Explorer), select File - Open - Choose File - Startup.htm if you are not working on line or if a problem develops. The "live" connection is:

http://stonewall.nist.gov/default.htm

A stone test wall was constructed to study the performance of stone subjected to weathering. It contains 2352 individual samples of stone, of which 2032 are domestic stone from 47 states, and 320 are stones from 16 foreign countries. Over 30 distinct types of stones are represented, some of which are not commonly used for building purposes. There are many varieties of the common types used in building.

The Wall is located at the NIST site in Gaithersburg, Maryland, at the Southwest end of the campus. The wall faces South, providing a direct exposure to the sunlight. The back face to the North resides all day long in the wall's shadow.

The wall was built in 1948 at the NBS site in Washington D.C. The wall was placed in jeopardy by the move of NBS to Gaithersburg, MD in the middle 1960s and the occupancy of the old NBS site by the University of the District of Columbia. The wall was moved intact in May 1977 to its present site at NBS (now the National Institute of Standards and Technology (NIST)) in Gaithersburg, MD.

Examine the site by looking through the parts labeled: Introduction, Features of the Wall, Location and Orientation, Documentation, and Miscellaneous Pictures. Once you are familiar with the ideas behind the StoneWall - the most direct way to work is by using the "Search by classification" option.

YOUR JOB is to investigate the wall using the web site (above) to determine which types of rock would be the best for building in our part of the United States and which might be the least desirable. In our study of rocks - we have examined more than a dozen of the kinds of stone included in the wall. Your work today should concentrate on:

Andesite	Gabbro	Quartzite
Argillite (Slate)	Gneiss	Sandstone
Basalt	Granite	Schist
Conglomerate	Limestone	
Coquina	Marble	

Examine as many pictures as you can in the time that you have. Answer the following questions:

1. Name the 2 or 3 rocks (from the list above) which appear to have weathered (broken down) LEAST.

2. What did you see that helped you make that decision?

3. Do they represent one **type** of rock (of the 3 types we have studied) or several types? Name the type(s).

4. Name the 2 or 3 rocks (from the list above) which appear to have weathered MOST.

5. Do they represent one **type** of rock or several? Name the type(s).

6. What observations can you make that helped you make this decision?

7. If you were going to build a stone house here in our school district - what kind of stone would you use? What type of rock does this represent? [Be SURE to give your reasons for your decision - Several complete sentences are required.]

9. What factors (other than weather and exposure) might have caused the results that you have observed in any of the kinds of rocks?

10. What factors can you think of that might cause you to choose a different kind of stone?