

**GLY 171: Earth Science
Geology of New York State Worksheet**

Name: _____
Spring 2011

Use the Generalized Bedrock Geology of New York State map and Geologic History of New York State summary table to answer the following questions. Write the answer to each question in the space provided. Please be concise.

1. Find the oldest rocks in New York State.

Where are they located (in what region of the state)? _____

What type of rock(s) are they? _____

How old are they in years? _____

In what geologic period or era were they formed? _____

2. Examine the "Important Geologic Events in New York" column on the Geologic History of New York State summary table. In the space below list the names of the four main orogenies that have shaped New York's geology in order, with the youngest on the top and oldest on the bottom. Also list the geologic period(s) in which each occurred.

<u>Orogeny Name</u>	<u>Geologic Period(s)</u>
_____	_____ (youngest)
_____	_____
_____	_____
_____	_____ (oldest)

3. Which orogeny coincided with the formation of Pangaea? _____

4. Examine the Generalized Bedrock Geology of New York State map. Note that the central and western portions of the state are composed of relatively undisturbed, flat lying layers of sedimentary rock. Whereas, the eastern most portion of the state is a jumbled mix of rocks of various types, included a significant amount of metamorphic rock. Explain why.

5. During the late Triassic and early Jurassic the Palisades sill intruded along the New York/New Jersey border. It is composed of diabase, which is a type of basalt.

What is a sill? _____

What type of rock would you expect to find forming a sill?

Circle one: igneous metamorphic sedimentary

Is basalt this type of rock?

Circle one: YES NO

Tectonically what was happening to the east coast of New York State during this time (what tectonic setting was present)?

Is basalt the type of rock you would expect to find at this tectonic setting?

Circle one: YES NO