

Class: _____

Student: _____

Geologic Map of WA

Answer the following questions on a separate sheet of paper. Write complete (stand-alone) responses. Use the geologic map of Washington, “Geology of Washington State” handout, and your science book. (Questions preceded by an * require the map.)

- * 1. What is the map’s title? When was it compiled? By whom? What agency or organization is responsible for publishing or distributing the map?
- * 2. The 22 geologic units are divided into 5 categories. Name the 5 categories.
- * 3. Look carefully at the names of the different color-coded geologic units. What do the names of the units tell us about the rocks in each of the 5 categories?
 4. Create a table that shows the time frame for each of the following: Quaternary; Upper Tertiary; Lower Tertiary; Mesozoic; Paleozoic; Precambrian. (Hint: use information from the textbook on pp. 600-601 or other resource materials for assistance)
- * 5. Read the two descriptions for Unconsolidated Deposits. What is alluvium? (hint: check pg. 181)
- * 6. What is the dominant color surrounding Puget Sound? What is the symbol and type of rock material represented by this color?
- * 7. What are the two colors that make up most of the Columbia Basin? What are the symbols and types of rock material?
- * 8. What geological units are found in your county? List four symbols and types of rock material.
- * 9. What does a solid black line on the map indicate?
- * 10. What unique geologic feature characterizes the Olympic Peninsula? What is the dominant color in the middle (Mt. Olympus) portion of the peninsula? What geologic unit does this represent? What color borders this unit to the north, east, and south? What type of rock is represented by this color?
 11. Where are the oldest rocks in the state found? What type of rocks (geologic units) are they?
 12. Where is the youngest (volcanic) rock in the state found? (Hint: use your knowledge of local events)
 13. When did the basalt flows occur that underlay most of the Columbia River Basin?
 14. What events lead to the “geomorphic” features known as the “Channeled Scablands?” What kind of “geomorphic” features were created?
 15. What two stratovolcanoes dominate the North Cascades? What other rock material makes up the North Cascades?
 16. What are three “current” examples of Cascade arc volcanism?
 17. How deep was the Fraser Ice Sheet at Olympia? Seattle?
 18. Where can we find evidence of large (>8 mag.) earthquakes?
 19. Why don’t we see much Columbia River Basalt within the Portland Basin?
 20. When did volcanism occur within the Portland Basin?
 21. What is a major source of sand, clay and gravel found in the Portland Basin?
- * 22. How many areas in the state would you visit if you wanted to find ultramafic (metamorphic) rocks? Where are these areas located?
- 23. Where in the state can you find shale and coal?
- 24. Where could you go in Washington State to find Eocene plant, insect and fish fossils?
- 25. If you were looking for palm fronds fossils, where in the state would you look?
- * 26. What other color patterns, geologic features, or geologic events did you notice or learn about during this activity?