**Questions to accompany The Science Channel’s “Faces of Earth”**

**Episode One “Assembling America”**

<https://www.youtube.com/watch?v=1iTUAUmF-N4&t=8s>

Questions to accompany The Science Channel’s “Faces of Earth” Episode Three - “Assembling America”; watch the video and answer the questions below.

1.\_\_\_\_\_\_\_\_\_\_ The Washington Coast is part of a subduction zone where the oceanic Pacific Plate is heading towards (converging on) the continental North American plate. The \_\_\_\_\_\_\_ plate is caught in between these larger plates and is being squished downwards underneath the North American Plate.

2. \_\_\_\_\_\_\_\_\_\_What type of plate boundary lies along the Coast of Oregon (transform? Convergence? Divergence?)

3. \_\_\_\_\_\_\_\_\_\_True or False: seafloor spreading results in creation of new oceanic crust through seafloor volcanism.

4. \_\_\_\_\_\_\_\_\_\_ Plate subduction in the Pacific Northwest results in what type of geologic features on the over-riding plates?

5. \_\_\_\_\_\_\_\_\_\_ True or False: the Pacific Northwest has no record of ancient earthquakes and seismic activity.

6.\_\_\_\_\_\_\_\_\_\_ The Pacific Northwest is also home to earthquakes... some of which you would feel

and some you wouldn’t. Episodic Tremor and Slip (“ETS”) describes earthquakes that happen (slowly or quickly?).

7. \_\_\_\_\_\_\_\_\_\_ What is the name of the barren landscape of eastern Washington associated with mega-flood erosion from Missoula Floods.

8.\_\_\_\_\_\_\_\_\_\_ True or False: The 13 thousand square mile Scablands of Eastern Washington State

were created when post-glacial Lake Missoula broke through a glacial ice dam and rushed across the land’s surface at speeds of fifty miles an hour carrying ice chunks, boulders and trees to scour the landscape.

9.\_\_\_\_\_\_\_\_\_\_ What is the name given to the modern day smaller and saltier remnant of ancient Pleistocene Lake Bonneville?

10.\_\_\_\_\_\_\_\_\_\_ The Great Basin is bounded by two mountain ranges to the east and west that are moving away from each other rather rapidly... they have doubled their distance apart over the last 40 million years... this has stretched and thinned the crust of the basin in between the mountains... superheated waters moved minerals and metals upward in the crust to make deposits of silver, lead, copper and \_\_\_.

11. \_\_\_\_\_\_\_\_\_ What is the dominant geologic process that has shaped the landscape surrounding Yellowstone National Park.

12.\_\_\_\_\_\_\_\_\_\_ Yellowstone National Park contains \_\_\_ percent of the Earth’s geysers that lie within the

park boundaries. The current park is the result of three very large volcanic eruptions. Heat to drive the thermal features comes from the Yellowstone Hot Spot. this heat source is only two miles below the surface of the park... between1923 to 1985 the floor of the caldera rose about three feet... today the land is slowly subsiding.

13. \_\_\_\_\_\_\_\_\_\_ True or False: Yellowstone volcanism is currently extinct and not active.

14.\_\_\_\_\_\_\_\_\_\_ A Cretaceous inland sea flooded the interior of the United States and split North America in half... the land underneath the sea began to rise causing the layered sediments making up the sea floor to tilt at angles of \_\_\_degrees and the seaway drained.

15.\_\_\_\_\_\_\_\_\_\_ The Great Plains are built upon the remnants of the sediments deposited out of this inland sea... this area is very agriculturally productive growing about \_\_\_ percent of the world’s total production of wheat, rye, corn, oats and barley.

16.\_\_\_\_\_\_\_\_\_\_ True or False: the Great Lakes region of the U.S. Midwest are the result of glaciation 100 million years ago.

17. \_\_\_\_\_\_\_\_\_ How many years ago did the major glaciers of the last glacial maximum ice age in North America, start retreating?

18. \_\_\_\_\_\_\_\_\_\_ True or False: the Appalachian Mountains of the Eastern U.S. are the result of active modern day plate tectonics and volcanic activity.

19.\_\_\_\_\_\_\_\_\_\_ The Appalachians are mere shadows of their former glory during the time of the great

supercontinent Pangea 25 million years ago. These former Himalayan-sized mountains marked

the point where the North American, \_\_\_\_and European Plates had collided together.

20.\_\_\_\_\_\_\_\_\_\_ True or False: 65 million years ago, at the end of the existence of the dinosaurs, the Appalachians had largely been worn down and eroded with sediments being dumped into the Pacific Ocean.

21.\_\_\_\_\_\_\_\_\_\_ 35 million years ago a comet or asteroid struck the Earth in the Southern Chesapeake Bay area causing a massive crater in the crust that was hidden underneath the water for years and years. Seismic profiles obtained for oil exploration led to the drilling of a core sample more than \_\_\_ (how long in miles?) long into the seventh largest impact crater on the present Earth.

22. \_\_\_\_\_\_\_\_\_\_ What is the name of the landform feature formed by the deposition of sediment at the mouth of a river as enters standing bodies of water.