Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_

Earth Science: National Geographic – Colliding Continents Video Worksheet

1. List the 7 continents (7 points).
2. 4.6 billion years ago, the Earth is created from what? (2 points)
3. The heaviest elements, including \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_, sink in the early molten Earth to form the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
4. The lighter elements, including \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rise towards the surface and erupt in volcanoes as molten rock.
5. Most scientists believe that the water that formed our oceans came from many, many \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ , which contained water.
6. How old was Earth believed to be when the first early, relatively stable land masses formed? (1 point)
7. What continent is believed to be the site of the earliest continental nuclei on Earth? (1 point)
8. What type of rock formed the first continents? (1 point)
9. As radioactive uranium decays it turns into what stable element? (1 point)
10. Why is granite less dense than other rock in Earth’s mantle? (2 points)
11. The giant jig saw of interlocking pieces that make up Earth’s crust are called what? (1 point)
12. The tectonic plates “float” on what layer of Earth? (1 point)
13. Evidence for the theory of continental drift was first proposed in 1912 by what German Scientist? (1 point)
14. When Wegener first proposed his theory of continental drift, why did the scientific community reject his ideas? (2 points)
15. Heat escaping from the core creates \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the next layer of the Earth, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. How many tectonic plates can be identified on Earth today? (1 point)
17. Where does old seafloor sink back into the Earth to be recycled? (2 points)
18. The world’s last supercontinent is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
19. How many years ago did the supercontinent Pangaea begin breaking up? (1 point)
20. During the break-up of Pangaea, S. America split off from \_\_\_\_\_\_\_\_\_\_\_\_\_\_, N. America split off from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and Australia split off from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and drifted north.
21. As plates move across the Earth, crust and rock is dragged back down into the Earth at what type of zones? (1 point)
22. When continental crust collides with continental crust at convergent plate boundaries and no subduction occurs, what begins to form? (1 point)
23. The formation of the Alps is the direct result of collision between what two continents? (2 points)
24. The Himalaya mountains formed as a result of the collision of what two tectonic plates? (2 points)
25. The Grand Canyon is located in what state? (1 point)
26. How long and wide is the Grand Canyon? (2 points)
27. Describe the relationship between the age of rock layers and the depth travelled into the Grand Canyon (2 points).
28. 250 million years ago the Grand Canyon began to form when what two plates began to collide? (2 points)