

Name: \_\_\_\_\_ Period: \_\_\_\_\_ #: \_\_\_\_\_

### National Geographic Colliding Continents

1. The seven continents we have today: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
2. Scientists expect, based on the patterns they see, that eventually, North America and \_\_\_\_\_ will collide with one another.
3. Colliding \_\_\_\_\_ are the mightiest force on earth.
4. One theory is that the moon was formed when Earth collided with the \_\_\_\_\_ Theia.
5. Earth is a massive, molten ball of boiling \_\_\_\_\_, where thousands of \_\_\_\_\_ and comets bombard our world.
6. The heaviest elements, \_\_\_\_\_ and \_\_\_\_\_, sink down toward the center of the Earth to form the \_\_\_\_\_.
7. The lighter elements, including \_\_\_\_\_ and \_\_\_\_\_ rise towards the surface where they erupt in volcanoes of molten rock.
8. Most scientists believe that water carried by \_\_\_\_\_ and \_\_\_\_\_ may have formed the oceans that surrounded the first continents.
9. A type of rock appears on the earth's surface that will form the nucleus of future continents; a rock buoyant enough not to sink into the bowels of the earth: \_\_\_\_\_.
10. Some people believe the ancient remains of the first true continent can be found in South \_\_\_\_\_?
11. Dating rocks is a complex process, because over long periods of time, the \_\_\_\_\_ can break down and re-form into new rocks.
12. Scientists look for an ingredient of rock that is tough enough to stand the test of time. The answer is \_\_\_\_\_ . . . it incorporates uranium and excludes lead.
13. As radioactive uranium in the zircon decays it turns into \_\_\_\_\_ .
14. Granite forms when minerals in the crust melt, then react with \_\_\_\_\_, cool and crystallize.
15. Why is granite less dense than other rock in Earth's mantle? \_\_\_\_\_
16. The giant jig saw of interlocking pieces that make up Earth's crust are called what?
17. These "float" or "sit" on what layer of Earth?
18. Evidence for the theory of continental drift was first proposed in 1912 by German Scientist Alfred Wegener. He noticed \_\_\_\_\_ fossils were discovered oceans away from each other.
19. When he first proposed his theory of continental drift, why did the scientific community reject his ideas?
20. Heat escaping from the core creates \_\_\_\_\_ in the next layer of the Earth, the \_\_\_\_\_.
21. Today, the majority of this new rock forms under the \_\_\_\_\_.

22. In Iceland, Einarsson's measurements show that the two continents are drifting apart by around \_\_\_\_\_ per year.
23. How many tectonic plates can be identified on Earth today?
24. Because the earth has a constant surface area, the same amount of land created must be \_\_\_\_\_ into the earth.
25. This process happens at \_\_\_\_\_ at the junctions of plates, where the crust dives down into the mantle.
26. The world's last supercontinent is known as \_\_\_\_\_.
27. Because much of the land is located far from the sea, the climate of the interior changes radically from \_\_\_\_\_ to \_\_\_\_\_ - it gets very hot in the summer, and extremely cold in the winter.
28. South America drifts away from \_\_\_\_\_, North America from \_\_\_\_\_; Australia splits off from \_\_\_\_\_ and drifted north.
29. When continental crust collides with continental crust at convergent plate boundaries and no subduction occurs, what begins to form?
30. The formation of the Alps is the direct result of collision between what two continents?  
\_\_\_\_\_ and \_\_\_\_\_
31. The Himalayas form as the \_\_\_\_\_ plate charges northward toward the \_\_\_\_\_ plate. It moves at \_\_\_\_\_ per year.
32. The Grand Canyon is located in what state? \_\_\_\_\_
33. At its deepest, it stretches down for over \_\_\_\_\_.
34. He finds some of the most interesting evidence at the very top: fossils of \_\_\_\_\_ creatures.
35. Grand Canyon formed at the collision of which two plates? \_\_\_\_\_ and \_\_\_\_\_
36. The formation of the isthmus of \_\_\_\_\_, a narrow strip of land, joining North and South America stopped the flow of water between the Pacific and Atlantic oceans.
37. There are two super-continents today: \_\_\_\_\_ and \_\_\_\_\_.
38. The global continental cycle causes many \_\_\_\_\_.
39. Plate movement creates stress points, which lead to \_\_\_\_\_.
40. As continents split apart, instability at plate junctions causes \_\_\_\_\_.
41. When plates subduct into the earth, their death throes produce devastating \_\_\_\_\_ (tsunamis).
42. Map the location of earthquakes and volcanoes, and they line up with the \_\_\_\_\_ between the plates.
43. The supercontinent scientist expect to form billions of years from now is called Pangea \_\_\_\_\_ - the final Pangea.