

Name: _____

Inside Planet Earth

The Crust

1. Titanic pressures and extreme temperatures that make _____ percent of the earth inaccessible to humans.
2. It is easier to design something to descend into the _____ than it is to design something to go to the center of the Earth.
3. How long has Professor Dan Lathrop been working on the construction of his model? _____
4. They've found there is actually more life _____ the surface than on it.
5. What keeps the moon and man-made satellites in orbit? _____
6. The atmosphere protects us from meteorites, absorbs lethal radiation, and insulates us from the freezing temperatures of _____.
7. The most visible sign of the energy inside the earth are _____.
8. Near the surface of the earth it is cold but what happens to the temperature as you go deeper? _____
9. How big are the largest known crystals in the world? _____
10. The Alps are literally a piece of _____ sitting on top of Europe.
11. How much do the Alps grow each year? _____
12. All the coal on earth is the fossilized remains of a _____.
13. The super continent was known as _____.
14. There were poisonous centipedes _____ feet long and 2-foot-long cockroaches.
15. Instead of alligators, what were the dominate predators in the Carboniferous period? _____
16. What is found 2.5 miles down into the earth? _____
17. Where are the world's deepest mines found? _____
18. The journey down the mine is so far it could take how long? _____
19. A group of strange creatures that thrive in extreme conditions are called _____
20. In the 1970's biologists found life 1.5 miles down in the ocean next to vents called black _____
21. The deepest hole drilled into the earth only reached _____ miles into the crust.
22. How old is the oldest fossil on the planet? _____
23. What is one of the most important by-products of photosynthesis? _____
24. Dissolve iron in the oceans made the oceans appear bright _____.
25. There is _____ times more oxygen in the iron ore than floating in the atmosphere.

The Mantle

26. The mantle makes up _____ percent of the earth's volume.
27. Mantle rock is nearly _____ the weight of granite.
28. Inside the earth's mantle, beneath 100 miles of rock, the pressure is _____ times more than at the surface.
29. Miners excavate extinct volcanic vents looking for what? _____
30. One of the largest diamonds ever recovered was how many carats? _____
31. From their chemistry, scientists can tell that most of the diamonds are _____ billion years old.
32. The earthquake in China in 2008 killed _____ people.
33. These _____ transfer heat from the core to the crust.
34. The crust consists of two types of plates, _____ and continental.
35. If all the water in the mantle rose to the surface, sea levels would rise _____ miles above Mount Everest.
36. What is the ring of volcanoes circling the Pacific Ocean called? _____
37. The surface plate is constantly moving while the mantle plume stays _____.
38. Yellowstone's crater is _____ miles long and 35 miles wide.
39. How long ago was Yellowstone's last eruption? _____

The Outer Core

40. The earth's outer core is a big ball of liquid metal bigger than the _____.
41. Seismologists can see what the outer core looks like because seismic waves _____ off of its surface.
42. What kind of metal was used to fill the model of the earth? _____
43. The magnetic field protects us from what? _____
44. The Auroras or Northern Lights are caused when particles slam into _____ molecules in the earth's upper atmosphere.
45. At least _____ astronauts have developed some kind of eye cataract.
46. Scientific data shows that the strength of the magnetic field is getting weaker by nearly _____ percent in the last century.
47. The magnetic field is 1/3 weaker over the Atlantic Ocean just off the coast of _____.
48. Near the core under the south Atlantic the magnetic field has totally _____.
49. Lava flows indicate that the last reversal happened _____ years ago.

50. The next reversal could happen within the next _____ years.
51. The rate of decrease (in the magnetic field) is about _____ percent per century.

The Inner Core

52. The inner core is a rotating sphere of solid _____.
53. Every year the inner core expands by how much? _____.
54. In the distant future the whole core will _____ solid.
55. Meteor Crater is found in what state? _____
56. What once flowed on Mars? _____
57. The magnetic field on Mars is weak but the crust is intensely _____.
58. The continent sized crater was created _____ billion years ago.
59. Mars is _____ the diameter of earth.
60. Extreme temperatures in the core suggest we have perhaps _____ of years before the earth cools off like Mars.