

One point per question
No partial credit

Station 1 (Dilophosaurus, Allosaurus, Parasaurolophus, Velociraptor)

1. Sample C
2. Othniel Charles Marsh
3. The tail
4. 40 mph
5. True

Station 2 (Eldredgeops, Elrathia, Isotelus, Calymene)

6. Glabella
7. 13 segments
8. Holochroal
9. 11 segments
10. False

Station 3 (Gryphaea, Glycymeris, Pecten, Exogyra)

11. Sample A
12. Jurassic to Cretaceous
13. Comb OR rake
14. Sample B
15. To live on the surface of a substrate, rock, sea/lake floor, etc

Station 4 (Halysites, Hexagonaria, Heliophyllum, Septastraea)

16. Petoskey stone
17. Michigan
18. Chain coral
19. It used its' nematocysts to stun prey
20. True

Station 5 (Archaeopteryx, Tiktaalik)

21. They are both transitional species.
22. Germany
23. Fishapod
24. The Devonian
25. Yes

Station 6 (LaBrea Tar Pits)

26. The LaBrea Tar Pits
27. 38,000 years
28. True
29. Yes
30. Saber-toothed cat, *Smilodon fatalis*

Station 7 (*Atrypa*, *Mucrospirifer*, *Platystrophia*, *Rafinesquina*)

31. D, C, A, B
32. Lamp shells
33. Constantine Rafinesque
34. False
35. Order Orthida

Station 8 (Stromatolites)

36. Stromatolites
37. Microbes (mainly photosynthesizing cyanobacteria) form thin microbial films which trap mud; and eventually, build up into a layered structure.
38. Stromatolites provide evidence of some of the earliest life on Earth.
39. Cyanobacteria are thought to be largely responsible for increasing the amount of oxygen in the primeval earth's atmosphere through their continuing photosynthesis
40. 3.5 billion

Station 9 (*Mosasauridae*, *Plesiosauria*, *Basilosaurus*)

41. B, A, C
42. No
43. True
44. The Late Eocene
45. Mary Anning

Station 10

46. *Composita*
47. *Cryptolithus*
48. *Juresania*
49. *Coelophys*
50. *Equus*
51. *Dracorex*
52. *Plateosaurus*
53. *Ankylosaurus*
54. *Iguanodon*
55. *Populus*
56. *Lystrosaurus*
57. *Metasequoia*

- 58. Calamites
- 59. Mesohippus
- 60. Glossopteris

Station 11 (Dunkleosteus, Batoidea, Bothriolepis)

- 61. 6,000
- 62. Order Antiarchi
- 63. About 39 inches/ 100 centimeters
- 64. Sharks
- 65. True

Station 12

- 66. Petrification - Organic material becomes a fossil through the replacement of the original material and the filling of the original pore spaces with minerals.
- 67. Amber/Copal - An insect lands in tree resin and is encased in it. The volatile compounds evaporate over thousands of years. First, it becomes copal, and as all of the volatile compounds disappear, it turns into amber.
- 68. Cast - Organisms buried in sediment may decay or dissolve away leaving a cavity or mold. If the space is subsequently filled with sediment, an external cast can be made.
- 69. Carbonization - Organisms or parts are pressed between layers of soft mud or clay, which hardens, squeezing almost all the decaying organism away. This then leaves a carbon imprint in the rock.
- 70. Mummification - Sediment buried its body, and minerals slowly replaced its tissues. Something -- perhaps a thick layer of wet sediment -- protected the body from the scavengers and bacteria that break down soft tissue. They lasted long enough to turn to stone.

Station 13

- 71. Ginkgo and Lepidodendron
- 72. Permian - Present
- 73. Spores
- 74. China
- 75. 130

Station 14

- 76. A body plan in which the 2 halves of the organism, 1 on each side of an anterior - posterior plane, are mirror images of each other.
- 77. A plant that has seeds unprotected by an ovary or fruit.
- 78. A body plan in which repeated body parts are arranged around a central point, like the spokes of a wheel.
- 79. Living fixed in one place; sedentary
- 80. A type of vertical rock between older layers of rock, or any geologic body that cuts across flat wall structures.

Station 15

- 81. Order Eurypterida
- 82. New York
- 83. Horseshoe crabs
- 84. Darriwilian - Late Permian
- 85. 8.2 feet (2.5 meters)

Station 16 (Smilodon)

- 86. 3 species
- 87. 3,000 specimens
- 88. False
- 89. Peter Wilhelm Lund
- 90. Early Pleistocene to Early Holocene

Station 17

- 91. Coquina and shale
- 92. Molluscs, trilobites, brachiopods, other invertebrates
- 93. Seafloor muds are transformed into shale when they encounter increased temperature and pressure during their geological history.
- 94. Clastic
- 95. Cockle, shell

Station 18 (Dimetrodon)

- 96. Using its' sail to heat and cool its' body.
- 97. Family Sphenacodontidae
- 98. Edward Drinker Cope
- 99. Twenty
- 100. False