Biology 2 Extra Credit (20 pts)

Los Angeles Natural History Museum

**Level 1**

**Megamouth and Coelacanth Exhibit (near main entrance)**

1. When was the megamouth discovered?

2. What is the likely reason for the megamouths vertical migration in the water column?

3. What did the distant relatives of the coelacanth give rise to?

**Oarfish Exhibit (hall around dueling dinos)**

4. The oarfish is the longest bony fish in the world. How do they orient themselves in the water column when they feed on small crustaceans and krill?

**African Mammal Hall**

5. What fictional animal is believed to have originated from the Arabian oryx?

6. Ostrich \_\_\_\_\_\_\_\_\_ are larger than any other land animal.

7. Are African lions solitary or social hunters? Do the males or females take part in the hunt?

8. How much can female spotted hyenas weigh? Which sex is heavier, the males or the females?

9. Describe the structure of the Sable antelope herd.

10. Do male and female greater kudos have horns?

11. How are Cape buffalo unique among African antelopes?

12. Which species is the most dangerous among the “big five game animals”?

13. How long is the gestation period of an African elephant, and how much do the calves weigh when they’re born?

14. How long can elephants live? What is the main cause of their decline?

15. What is unique about the giraffe’s heart that allows it to pump blood to its brain?

16. How many individuals of the West African black rhinoceros are left on earth?

17. What percentage of DNA is shared between chimpanzees and humans?

18. What are hippos closely related to?

**North American Mammal Hall**

19. When are grizzly bears usually active? What do the eat?

20. How long can the harbor seal holds its breath and how deep can they dive?

21. Why do wolves howl?

22. The moose is the largest member of the \_\_\_\_\_\_\_\_\_ family.

23. Are cougars solitary or pack hunters? How do they kill their prey?

24. How much can a male Steller sea lion weigh?

25. Can the North American porcupine throw their quills?

26. Where are the plains bison originally from and when did they get to North America?

27. How do male bison protect the females and young in the herd when threatened by wolves?

28. How are caribou unique among members of the deer family?

29. Are peccaries in the same family as pigs? Where are peccaries found?

30. What are the major predators of mule deer?

**Dinosaur Hall**

**What makes a dinosaur a dinosaur?**

31. Which modern day reptiles (turtles, lizards, or crocodiles) are most closely related to dinosaurs?

32. How did the posture of dinosaurs differ from that of other reptiles?

**How do we study dinosaurs?**

33. What are the four steps in studying fossils?

1.

2.

3.

4.

**How diverse were dinosaurs?**

34. Approximately how many dinosaur species have been discovered?

**What was ancient earth like?**

35. Fill in the Eras, Periods, and significant events in the table below.

**Era Period Significant Events**

|  |  |  |
| --- | --- | --- |
| Cenozoic |  |  |
|  | Mammals diversified |
|  |  |  |
|  |  |
|  |  |
|  |  |  |

36. What evolved first, flowering plants or birds?

**Who’s related to whom?**

37. Are there any dinosaur relatives that are still living on earth today? If so, what are they?

**What caused the extinction of the large dinosaurs?**

38. What evidence is there for the theory that a large asteroid impact led the extinction of the dinosaurs?

**What happened to the dinosaurs?**

39. What are five shared characteristics between modern day birds and dinosaurs?

1.

2.

3.

4.

5.

**Age of Mammals**

**What is a mammal?**

40. What are the four key traits that are shared by all mammals?

1.

2.

3.

4.

**Not a dinosaur!**

41. What are some of the other features shared by mammals that suggest this fossil is that of a mammal rather than a dinosaur?

**DNA Relationships**

42. According to the mammal phylogeny, which group of mammals are most closely related to whales?

**Running Faster**

43. How did the lower limbs of horses evolve to make horses better adapted for running in the pen grasslands?

**Cracking bones**

44. How did the carnivore jaw and teeth evolve over time, leading to stronger jaws able to crush bone?

**Migrating Mammals**

45. What led to the migration behavior seen in many mammals?

**Eating Grass**

46. How have the teeth of herbivorous (plant eating) mammals evolved over time?

**What happened to all the large mammals?**

47. Provide two of the leading theories on what lead to the rapid extinction of the large mammals in North America.

