Life Has A History

Name _____

1. Scientists have described about _____ _____ species of animals and more than a _____ species of land plants. Some scientists estimate that there may be as many as _____ million species of animals, plants, and other kinds of organisms on the Earth.

2. Of the species identified today, how many are:

Arthropods ? _____ Roundworms? _____

Mollusks ? _____ Flatworms? _____

Mammals? _____ Land plants? _____

Fungi? _____ Algae? _____

3. If the pictures of the various life forms were of appropriate sizes, which would be the largest? _____

4. The biodiversity that exists on earth today is the result of _____. The easiest way to define evolution takes just three words: _____ _____ _____.

Click on one of the images for a peek at life at the sea (Tour 2).

A. 470 Million Years Ago - Middle _____ Period

What were the dominant predators of the sea?

What are a few of their relatives?

B. 160 Million Years Ago - Middle _____ Period

What animals dominated the land?

What were two vertebrates that lived in the sea?

What are two relatives of ammonites are found in oceans today ?

C. The Ocean Today - Cenozoic Era

Where can you find the Great Barrier Reef?

How was it formed?

5. Evolution has occurred over _____ _____. The history of the Earth can be traced back ____ _____ years. Explore the calendar to discover some of the other important events.

_____Formation of the Earth	_____Largest mass extinction of all time
_____Oldest known land animals	_____Oldest known flowering plants
_____Oldest known life	_____Origin of dinosaurs
_____Rise of eukaryotes	_____Oldest known humans
_____Extinction of dinosaurs/others	_____Start of recorded human history

6. _____ provide the evidence for the history of life on Earth. A fossil is any trace of an _____ or _____ that was once alive.

Click on the fossil to explore the history of life on Earth. (Tour 3a)

A. What fossils are called “lamp shells”? Where did they live?

B. What was unusual about Tribrachidium?

C. What is a “foram”? Where can it be found today?

D. What ancient plants were called “seed ferns”?

7. What is a paleontologist?

8. Fossil evidence indicates that _____ has changed over _____. By collecting information from fossils of all ages and places, we can put together the "family history" of a _____ of organisms.

9. Fossils help us to identify the _____ among groups of related organisms. Related organisms share features _____ from common ancestors. Any organisms that share a common _____ will have certain features in common. These features can be used to form a group (or _____), so that all members of the group (taxon) share unique _____.

10. What features do all members of these groups have in common?

A. Therapod -

B. Aves -

C. Neornithes -

11. To which group do birds belong? _____

12. What is a cladograms? How is it used by scientists?

13. What features are shared by members of the hominid group? (Tour 5)

14. Even though related organisms inherit common features, _____ exist within populations. Many variations are passed on to future _____. They are _____.

15. Without variation, _____ cannot happen.

A. What animal is highlighted on this page (Tour 7)?

B. How can you tell one species from another?

16. Read the information on the Tour 7a page to explain this statement as it relates to the Galápagos finches: “Natural selection and variation together cause evolutionary change”.

17. _____ _____ is not the only mechanism of evolution. Anything that changes the _____ make-up of a population, such as genetic _____ and _____ isolation, can influence evolution.

18. Who is credited with publishing the theory of natural selection?

19. Scientists estimate that _____% of all species that have ever lived are now extinct.

20. What factors determine if animals and plants will form fossils? (Tour 9e)

1.

2.

3.

21. Click the trilobite photo, then click  to explore the world of trilobites.

    A. When did the first trilobites appear on Earth?

    B. When did trilobites become extinct?

    (Click the green arrow to return to the tour.)

22. When did ammonites become extinct?

23. Click the Lambeosaurus photo, then click  to explore dinosaurs.

    A. What did scientists called dinosaur fossils prior to 1824?

    B. Who invented the term “Dinosauria”? When?

    C. When did the first dinosaurs appear?

    D. What winged creatures appear during the dinosaur age?

    (Click the green arrow to return to the tour.)

24. Click the **?** mark to explore a few extinct species from recent times.

    A. Where did the quagga live? When did they become extinct?

    B. What caused the extinction of passenger pigeons?

    C. What threatened the golden lion tamarin? What is being done to save them from extinction?