BIOLOGY

UNIT 8 STUDY GUIDE

EVOLUTION

1) What types of evidence supports the theory of evolution?

2) What are behavioral adaptations?

3) Which scientist suggested that acquired characteristics can be inherited by offspring?

4) Which method would provide the best preservative technique for fossilization?

5) What did Thomas Malthus determine to be the primary limiting factor in any population of organisms?

6) The bones in a whale flipper and a human hand would be considered homologous or analogous?

7) Geographic or reproductive isolation is required for what?

8) Which of the ancestral humans has the greatest brain capacity?

9) How quickly does a complex adaptation probably evolve?

10) The digestion of food is an example of what type of adaptation?

11) Which similarity would provide better evidence of a common evolutionary ancestor?

13) Most fossils are found in what kind of rock

15) An organ that is incomplete or no longer has any apparent uses is called what?

16) What two kinds of molecules would be used to support evolution?

17) \_\_\_\_\_ occurs when a physical barrier cuts a single breeding population in two.

18) Darwin first started to develop the idea of evolution after visiting the \_\_\_\_\_ Islands.

19) What is the difference between punctuated equilibrium, gradual equilibrium, stabilizing selection, disruptive selection, directional selection.

21) Physical separation of a population of organisms followed by selection of different characteristics in each population can result in \_\_\_\_\_.

22) The early developing stage of an animal is called a \_\_\_\_\_.

23) The wings of a butterfly, bird, and flying fish are examples of what?

24) The idea that evolution proceeds in rapid steps followed by long periods of stability is called \_\_\_\_\_.

25) How was the atmosphere of the earth changed by autotrophes?

26) Autotrophs use what energy source to produce food?

28) What bone would be particularly useful to determine whether an animal was bipedal?

29) What gas is present in today’s atmosphere that was absent in Earth’s original atmosphere?

30) Which of the following would exhibit cryptic coloration?

31) Describe mimicry

32) The orange and black stripes of a tiger is an example of what?

33) Natural selection determines which genes spread throughout a population.

34) Ultraviolet radiation in the early atmosphere is thought to have been important in causing reactions between simple molecules in the formation of the organic molecules

35) Two species may share a common gene pool

36) Two similar species of fish living in the same stream are reproductively isolated.

37) Study of similarity in protein structure among organisms is called comparative anatomy.

38) Mimicry, warning coloration, and cryptic coloration are all adaptations which increase the chance of survival and reproduction of organisms that posses there capabilities.

39) A trait is an adaptation only if it improves the chances of reproduction and survival.

40) Homologous structures must have similar function

41) All variations become adaptations.

42) Reproductive isolation prevents interbreeding between members of the same species

43) A characteristic that can be used to determine primate ancestral life styles and food preferences is the types of teeth present in upper and lower jaws.

44) A species is a group of organisms, which normally interbreed in nature to produce fertile offspring.

45) The chemical process of aerobic respiration evolved prior to the chemical process of photosynthesis.

46) According to the theory of natural selection, individuals having variations that give them an advantage in obtaining limited resources will likely survive and reproduce.

47) The development of a new species is called species radiation.

48) The coccyx is a vestigial organ.