

SECTION 15-2 REVIEW

EVIDENCE OF EVOLUTION

VOCABULARY REVIEW Explain the relationship between the terms in each of the following pairs of terms.

1. homologous structure, analogous structure _____
2. fossil, principle of superposition _____
3. relative age, absolute age _____

MULTIPLE CHOICE Write the correct letter in the blank.

1. The wing of a bat and the foreleg of an alligator are
 - a. analogous features.
 - b. homologous features.
 - c. vestigial features.
 - d. artificially selected features.
2. Features that were useful to an ancestral organism but are not useful to a modern organism that inherited them are said to be
 - a. analogous.
 - b. homologous.
 - c. vestigial.
 - d. artificially selected.
3. According to the principle of superposition, the lowest layer in a cross section of a rock sequence
 - a. is the most recent.
 - b. is the oldest.
 - c. has the fewest fossils.
 - d. contains only the fossils of burrowing animals.
4. Embryological comparisons reveal that
 - a. many vertebrate embryos look similar at early stages of development.
 - b. embryos of different vertebrates look more similar as development proceeds.
 - c. rabbit embryos look like adult fish.
 - d. gorillas begin life as fish and then develop into gorillas during an embryonic stage.
5. Fossils are
 - a. remains or traces of preexisting organisms.
 - b. all extinct organisms.
 - c. deeply buried sedimentary rock strata.
 - d. from animals but not plants.

SHORT ANSWER Answer the questions in the space provided.

1. When trying to determine the evolutionary relationship between two species, would a biologist concentrate on homologous features or analogous features? Explain why. _____
2. If an animal has a vestigial structure, what might a biologist infer about the animal's evolutionary history? _____
3. How does biogeography contribute to an understanding of evolution? _____
4. Explain the evidence that indicates that species evolve over time. _____
5. **Critical Thinking** Why do vestigial structures persist in modern organisms? _____

STRUCTURES AND FUNCTIONS Indicate the relative ages of the fossilized organisms listed below by placing them in a strata on the diagram of a cross section of sedimentary rock below.

trilobites, mammal fossils, oldest fossil, youngest fossil, first land plants, first dinosaurs

