Name: ­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_

1. Describe biogeography in your own words.

The study of the distribution of species and ecosystems in geographic space and through geological time

1. How does biogeography contribute to understanding how descendants of multiple species can have a common ancestor?

Isolated populations developed unique mutations and adaptations, eventually becoming their own species.

1. Match the example with the most correct term.
2. A penguin fin and a fish fin
3. Humans having a tail in utero and losing it before birth
4. The os coxa (hip bone) in a dog and in snakes
5. All DNA having only 4 bases

Analogous A

Molecular homologous D

Developmental homologous B

Anatomical homologous C

1. How does radiometric dating work?

a comparison between the observed abundance of a naturally occurring radioactive isotope and its decay products, using known decay rates

1. What are the benefits of the fossil record?

see small adaptations that happen in species over time, provides proof for common ancestry, pinpoints when certain species existed and whether they may be related to other species

1. Why do you think the fossil record still incomplete?

Answers will vary. Ex. Some species have maintained stasis, many fossils have yet to be found, etc…

1. How do homologies help prove that some species are related?

The similarities in structure and function of anatomy, DNA, and development indicate a common ancestor.