

Understanding Evolution: Homology and Analogy

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Go to "What is the Evidence for Evolution" to Similarities and differences: Understanding homology and analogy

1. a) In the image, which pair represents an analogy and which a homology?

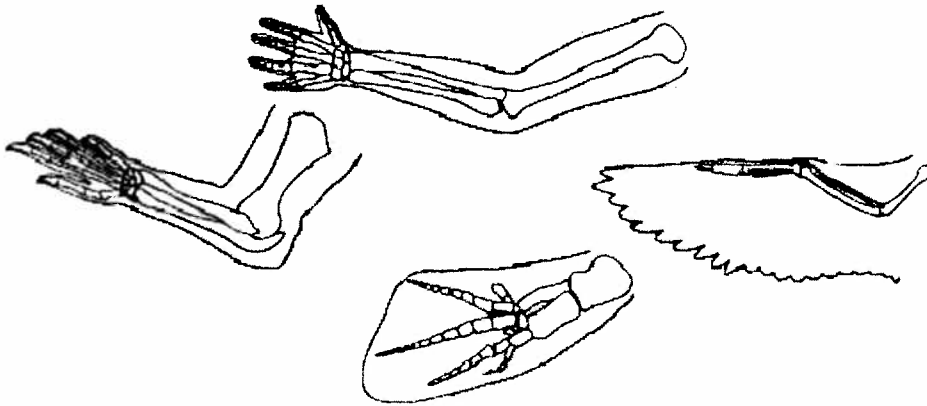
b) Define homology:

c) Define analogy:

2. What is a tetrapod?

3. What are the six bones found in all tetrapod legs?

4. Identify these limbs (to what animal do they belong)?



5. What did the common ancestor of all modern tetrapods look like?

6. Side Trip: "not just anatomy." - How are a bird and a crocodile homologous?

7. Similar structures that evolved independently are called _____.

8. a) What is the difference between a marsupial and a placental?

b) What is Smilodon?

c) What is Thylacosmilus,

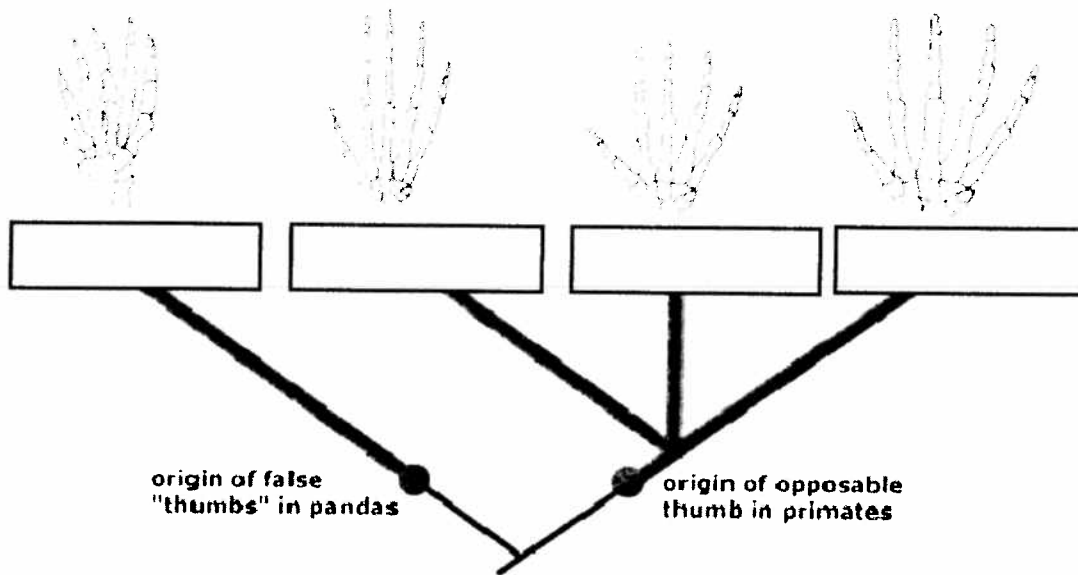
9. Describe how two unrelated flowers could evolve to have a similar appearance?

10. Are similarities between sharks and dolphins homologous or analogous?

11. What is morphology?

12. What three criteria are used to determine whether something is a homology or analogy?

13. Fill in the blanks of the primate tree.



14. Considering all of the evidence, are the "wings" (actually flaps of skin stretched between the legs) of sugar gliders and flying squirrels homologous or analogous structures? Explain why you would conclude this.

15. Sidetrip: See more examples of homology and examples of analogy.

a) How are a venus fly trap and a pitcher plant homologous?

b) How are barnacles and limpets alike? How can these similarities be explained?

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