Vertebrate Biology – Evolution Study Guide

***Metabolism***

Define:

What are the 2 types

|  |  |
| --- | --- |
|  |  |

Pros and Con to each Type

3 Characters of Each type and why they would need them

- *example*: large chest cavity in endotherms because they need it to fit complex lung and hearts since endothermy requires high levels of cellular respiration and therefore has a high O2 requirements.

***Cladistics***

Ancestral vs Derived traits

|  |  |
| --- | --- |
| Ancestral | Derived |

Be able to build a cladogram and interpret the information that it represents

What evidence is used to construct/inform a cladogram (3)

1.

2.

3.

***Skeleton Lab and Track that Change Activity***

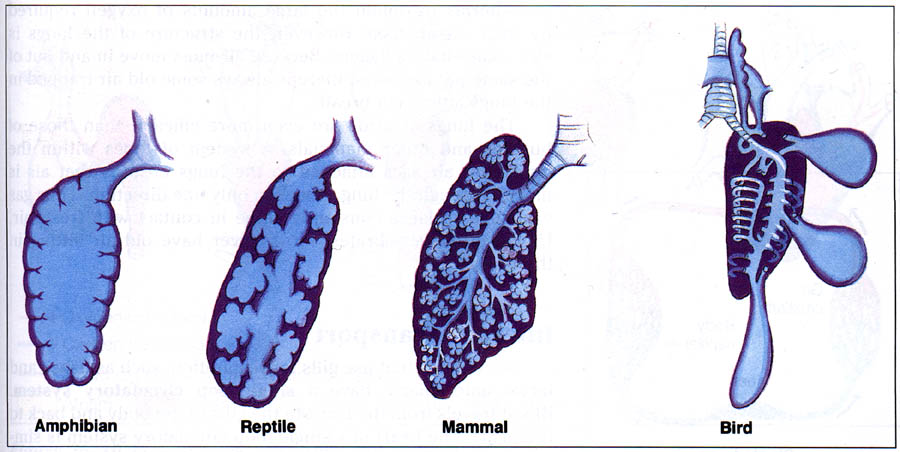
What does complexity of a structure represent about its evolution?

What is the meaning of Occam’s Razor in terms of evolution?

**Definition**: hypotheses that which makes the fewest assumptions and thereby offers the simplest explanation of the effect.

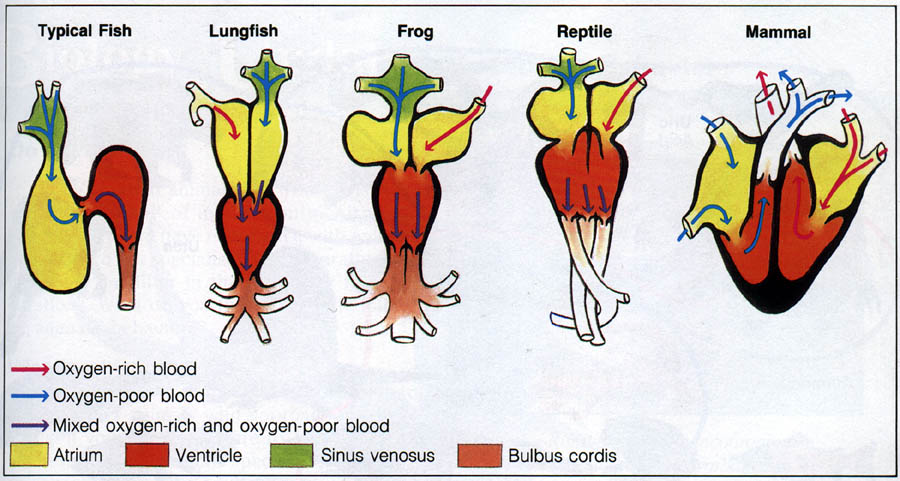
Describe the trend in heart and lung development and reproduction method and what that indicates about their mobility and habitat use.

Ex: Lung:



Increasing complexity (Shown by more surface area for gas exchange)

* Need more 02
  + for more active life style
  + Life on land



Can you explain the evolutionary trend of habitat use? And be able to support it with evidence

Water ⇒ land ⇒ and occasionally back to water