Evidence for Evolution Webquest

Directions: Use the links below to research information on the following topics:

A. Fossil Evidence

http://www.zoomschool.com/subjects/dinosaurs/dinofossils/Fossiltypes.html

1. What are fossils?

_____
_____

2. List and describe the four types of fossils.
   (a) _____
   (b) _____
   (c) _____
   (d) _____

http://bioweb.cs.earlham.edu/9-12/evolution/HTML/live.html

3. Describe how scientists use fossils to show an evolutionary relationship.

_____
_____

http://geology.about.com/library/bl/images/blfossilindex.htm

4. Find four pictures of fossils. Copy and paste the pictures onto this document. Be sure to label what each picture is.

B. Embryological Evidence

http://www.biology-online.org/dictionary/Embryo

1. What is an embryo? *(Use the human biology definition.)*

_____

_____

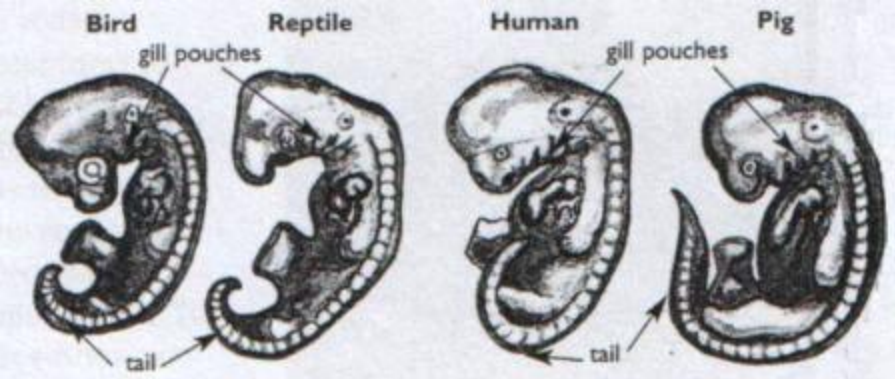

Figure 19.13 *Four different embryos at similar stages of development.*

2. Use the image above and list two similar features that are seen in the early stages of embryonic development.

(a) _____ (b) _____

http://necsi.edu/projects/evolution/evidence/embryos/evidence_embryo.html

3. What did the gill slits in a fish embryo develop in to?

_____

_____

4. How do similarities in developing embryos provide evidence of Evolution?

_____

_____

_____

_____

_____

_____

(C) Anatomical Evidence

http://www.becomehealthynow.com/article/anatom/703

1. What is anatomy?

_____
_____

2. Use "Google" to research each of the types of comparative anatomy and write the information below:

Homologous Structures:

_____
_____
_____
_____
_____

Analogous Structures:

_____
_____
_____
_____
_____

Vestigial Structures:

_____
_____
_____
_____
_____

3. Find one picture for **EACH** type of anatomical evidence.

(D) Biochemical Evidence

http://biochemistry.suite101.com/article.cfm/what_is_biochemistry

(1) What is biochemistry?

_____

_____

http://bioweb.cs.earlham.edu/9-12/evolution/HTML/live.html

(2) List two types of molecules that can be used to show an evolutionary relationship. What is their function?

_____

_____

_____

_____

(3) How was it determined that monkeys and cows are more closely related than monkeys and fish?

_____

_____

_____

_____

Organism	Amino Acid Differences	Organism	Amino Acid Differences
Human beta chain	0	Mouse	27
Gorilla	1	Kangaroo	38
Rhesus monkey	8	Chicken	45
Dog	15	Frog	67
Cow	25	Soy bean	124

(4) The table above shows the number of differences in the amino acid sequences of different organisms compared to humans. What is an amino acid? What molecule is built of amino acids?

_____

_____

_____

(5) According to the table, which organism is most closely related to the human? Which organism is the most distant relative of the human? How do you know?

_____

_____

_____