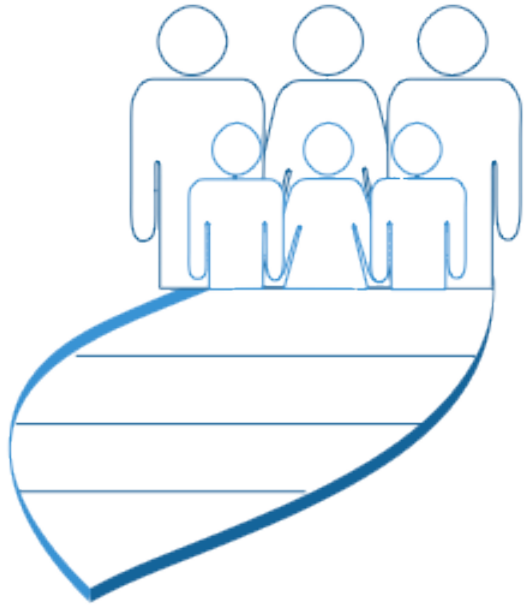


Life Sciences/HHMI

*OutReach*  
PROGRAM



- Summer 2006 Workshop
- in Biology and Multimedia
- for High School Teachers

# WHO WANTS TO BE A BILLION YEARS OLD?

50:50

1



- ◆ 1 Billion
- ◆ 500 million
- ◆ 100 million
- ◆ 50 million
- ◆ 10 million
- ◆ 1 million
- ◆ 500,000
- ◆ 100,000
- ◆ 50,000
- ◆ 20,000
- ◆ 10,000
- ◆ 5000
- ◆ 2000
- ◆ 1000
- ◆ 500

500

**Who is most often associated with the term evolution?**

◆ A. Charles Darwin

◆ B. Albert Einstein

◆ C. Isaac Newton

◆ D. Charlie Brown



50:50



500

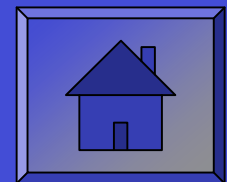
**Who is most often associated with the term evolution?**

◆ A. Charles Darwin

◆ C. Isaac Newton

◆ **A. Charles Darwin**

**Correct**



1000

**What was the name of the ship that Darwin used for his expeditions?**

◆ A. The Beagle

◆ B. The Chihuahua

◆ C. The retriever

◆ D. The Corgi



50:50



1000

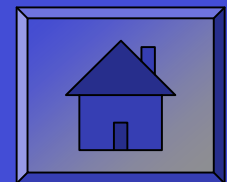
**What was the name of the ship that Darwin used for his expeditions?**

◆ A. The Beagle

◆ B. The Chihuahua

◆ **A. The Beagle**

**Correct**





2000

**Which of the following is NOT a common misconception about evolution?**

◆ A. It is not a science

◆ B. Natural selection leads to adaptation

◆ C. There is no evidence for it

◆ D. It is just a theory



50:50



2000

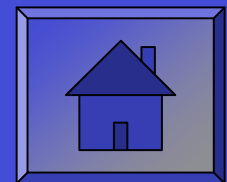
**Which of the following is NOT a common misconception about evolution?**

◆ C. There is no evidence for it

◆ B. Natural selection leads to adaptation

◆ **B. Natural selection leads to adaptation**

**Correct**



5000

**A phylogenetic tree uses what type of characteristic?**

◆ A. Homologous

◆ B. Analogous

◆ C. Convergent

◆ D. Divergent



50:50



5000

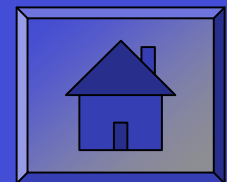
**A phylogenetic tree uses what type of characteristic?**

◆ **A. Homologous**

◆ **B. Analogous**

◆ **A. Homologous**

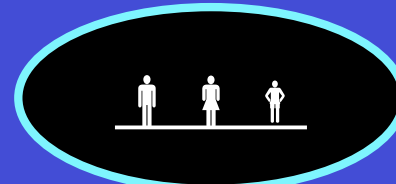
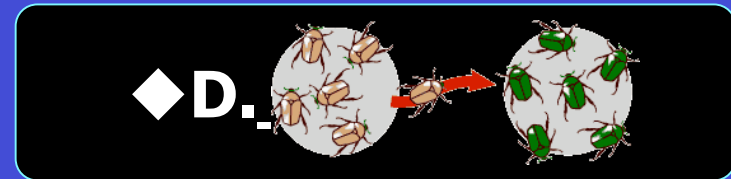
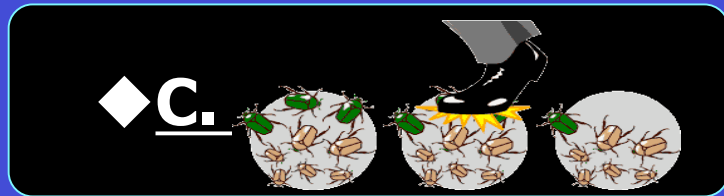
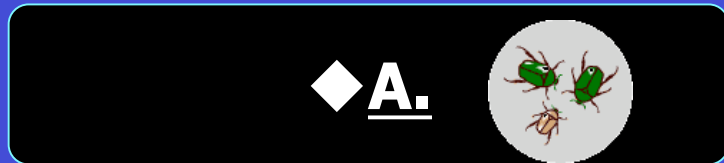
**Correct**



10,000

**Which of the following images shows migration?**

Images courtesy of the UC Museum of Paleontology Understanding Evolution: <http://evolution.berkeley.edu>



10,000

**Which of the following images shows migration?**

Images courtesy of the UC Museum of Paleontology Understanding Evolution: <http://evolution.berkeley.edu>

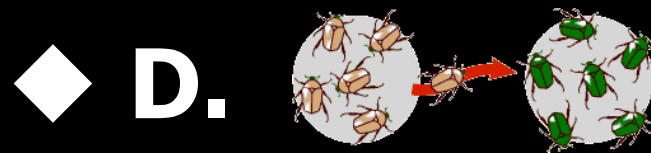
◆ A.



◆ D.

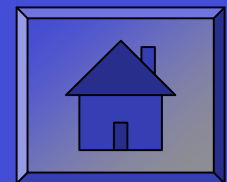






Images courtesy of the UC Museum of Paleontology Understanding Evolution: <http://evolution.berkeley.edu>

# Correct



20,000

What type of structures are displayed in the following image?

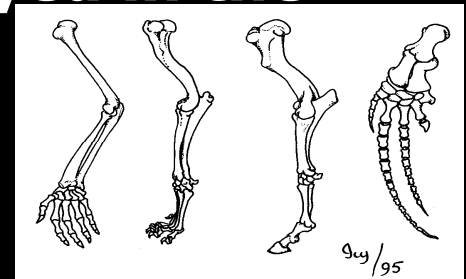


Image courtesy of BIODIDAC website <http://biodidac.bio.uottawa.ca/>

◆ A. Analogous

◆ B. Non-homologous

◆ C. Homologous

◆ D. Convergent



50:50



20,000

**What type of structures are displayed in the following image?**

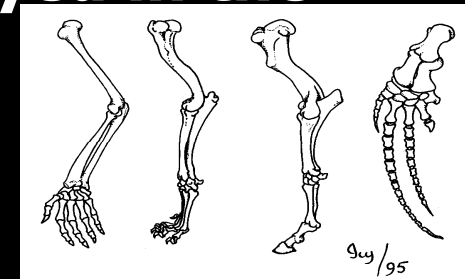


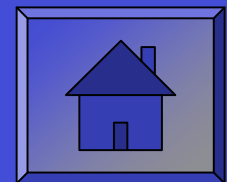
Image courtesy of BIODIDAC website <http://biodidac.bio.uottawa.ca/>

◆ C. Homologous

◆ D. Convergent

◆ C. Homologous

Correct



50,000

**Which of the following is not an example of microevolution?**

◆ A. Mosquitoes  
evolving resistance to  
DDT

B. The evolution of  
mammals

◆ C. • whiteflies  
evolving resistance to  
pesticides

◆ D. bacteria strains evolving  
Resistance to penicillin



50:50



50,000

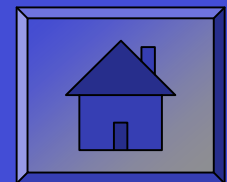
**Which of the following is not an example of microevolution?**

◆ A. Mosquitoes  
evolving resistance to  
DDT

B. The evolution of  
mammals

◆ **B. The evolution of mammals**

**Correct**



100,000

**Which of the following organisms evolved the earliest?**

◆ A. Ray Finned fish

◆ B. Sharks

◆ C. Reptiles

◆ D. Amphibians



50:50





100,000

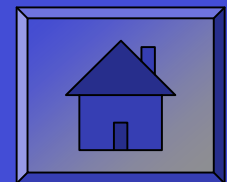
**Which of the following organisms evolved the earliest?**

◆ A. Ray Finned fish

◆ B. Sharks

◆ **B. Sharks**

**Correct**



500,000

Which of the following is NOT a method of dating evolutionary evidence?

◆ A. Molecular clocks

◆ B. Radiometric dating

◆ C. Morphology

◆ D. Stratigraphy



50:50



500,000

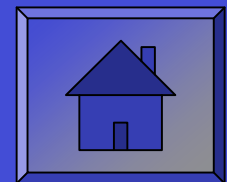
**Which of the following is NOT a method of dating evolutionary evidence?**

**B. Radiometric dating**

**C. Morphology**

◆ **C. Morphology**

**Correct**



1 million

**In terms of geologic time, which of the following is the oldest?**

◆ A. Paleozoic

◆ B. Cenozoic

◆ C. Mesozoic

◆ D. Quaternary



50:50



1 million

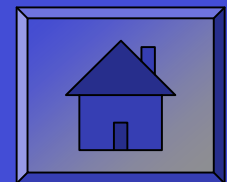
**In terms of geologic time, which of the following is the oldest?**

◆ A. Paleozoic

◆ D. Quaternary

◆ **A. Paleozoic**

**Correct**





10 million

**The peppered moth is an example of:**

◆ A. Migration

◆ B. Natural Selection

◆ C. Mutation

◆ D. Genetic drift



50:50



10 million

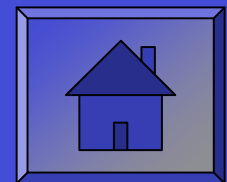
**The peppered moth is an example of:**

◆ C. Mutation

◆ B. Natural Selection

## ◆ B. Natural Selection

# Correct



50 million

**Which of the following are most distantly related?**

◆ A. Bears and whales

◆ B. Sunfish and dolphins

◆ C. Tree frogs and snakes

◆ D. Robins and turtles



50:50



50 Million

**Which of the following are most distantly related?**

**◆ A. Tree frogs and snakes**

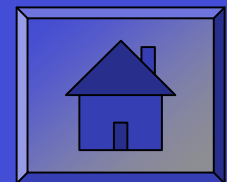
**◆ B. Sunfish and dolphins**

**◆ C. Tree frogs and snakes**

**◆ D. Sunfish and dolphins**

◆ B. Sunfish and dolphins

Correct



100 million

**Who proposed that organisms were driven from simple forms to more complex forms?**

◆ A. Charles Darwin

◆ B. Comte de Buffon

◆ C. Chevalier de Lamarck

◆ D. Karl von Baer



50:50



100 million

**Who proposed that organisms were driven from simple forms to more complex forms?**

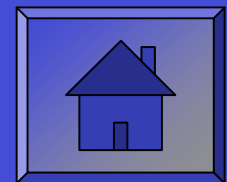
◆ C. Chevalier de Lamarck

◆ D. Karl von Baer



◆ C. Chevalier de Lamarck

Correct



500 million

**Which of the following is not a vestigial structure?**

◆ A. Appendix

◆ B. Ear wiggling muscles

◆ C. Wisdom teeth

◆ D. Male nipples



50:50



500 million

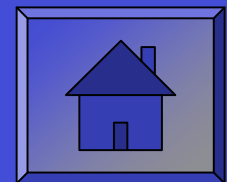
**Which of the following is not a vestigial structure?**

◆ **A. Appendix**

◆ **D. Male nipples**

◆ **D. Male nipples**

**Correct**



1 billion

Of the following, which is the earliest human species?

◆ A. *Homo habilis*

◆ B. *Homo neanderthalensis*

◆ C. *Homo erectus*

◆ D. *Homo sapiens*



50:50



1 billion

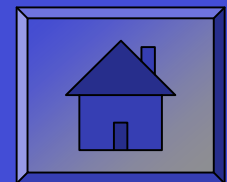
**Of the following, which is the earliest human species?**

◆ **A. *Homo habilis***

◆ **B. *Homo neanderthalensis***

◆ **A. Homo habilis**

**Correct**



**Sorry, but that is  
incorrect.  
Thank you for  
playing.**

Right Mouse Click and  
Choose END SHOW



**CALL A TEACHER!  
CALL A FRIEND!**

**Your decision!**

Right Mouse Click and  
Choose GO, Previously  
Viewed

# Ask The Audience!

Right Mouse Click and  
Choose GO, Previously  
Viewed

**CONGRATULATIONS!!**  
**You are now an**  
**Evolution**  
**GENIUS!!**

# RESOURCES

<http://soe.cahs.colostate.edu/faculty/johnson/games/>

<http://biodidac.bio.uottawa.ca/>

<http://newton.nap.edu/html/nses/6e.html#ls>

<http://evolution.berkeley.edu/evolibrary/home.php>

<http://www.ed.state.nh.us/education/doe/organization/curriculum/Assessment/Science.htm#LifeScience>

<http://homepages.wmich.edu/~rudged/evolution.html>

<http://www.txtwriter.com/backgrounders/Evolution/EVpage12.html>

[http://www.mnh.si.edu/anthro/humanorigins/ha/a\\_tree.html](http://www.mnh.si.edu/anthro/humanorigins/ha/a_tree.html)