**Evidence for Evolution WebQuest**

In this webquest you will work as a team to conduct research on selected websites. Each person in the group will act as a specialist and gather evidence from the fields of paleontology, anatomy and physiology, and molecular biology. You will present your findings to your group.

 Learning goals

* Experience how different branches of science work together to support a theory
* Understand how scientist collect and organize evidence for evolution.
* Be able to produce a paragraph that presents the evidence and explains its relevance as support for the theory of evolution.

Procedure

1. You work in a group of three. You may share evidence with another group after your group has shared their evidence.
2. Assign each person two task in your group from the list below. Each person should have a job A and a Job B. Anatomists study the structure of organisms, physiologists study the function of organisms, molecular biologist study genetics, and paleontologists study fossils

**Job A: Specialist**  **Job B: Group Roles**

Molecular biologist Facilitator – Make sure that every voice is heard. Focuses work Anatomist around learning task

Paleontologist Time keeper- Encourages the group to stay on task. Monitors time

 Organizer-Makes sure all group members have the information and they are writing it down in an organized manner.

1. Review the sites that apply to your specialty.
2. Find four to five examples of evidence for evolution. Try to find specific examples, so that when you present to another group you will all have different examples to share. Also, try to find the date on which the evidence was discovered. You will be expected to understand and present how that evidence supports evolution.
3. Use the list of recommended Web sites below. You may use other science based websites.
4. Join another group and share information

**Anatomists**
• [Evidence Supporting Biological Evolution](http://www.nap.edu/html/creationism/evidence.html)

<http://www.nap.edu/openbook.php?record_id=11876> (see "Common Structures")

* Early theories of evolution (scroll down to Chemical and anatomical similarities)

<http://anthro.palomar.edu/evolve/evolve_3.htm>

• [Fossils Can Show How Certain Features Evolved](http://www.ucmp.berkeley.edu/education/explorations/tours/stories/middle/C7.html) <http://www.ucmp.berkeley.edu/education/explorations/tours/stories/middle/C7.html>

* Cliff notes evidence of evolution (scroll down to comparative anatomy)

[http://www.cliffsnotes.com/study\_guide/Evidence-for-Evolution.topicArticleId-8741,articleId-8636.html](http://www.cliffsnotes.com/study_guide/Evidence-for-Evolution.topicArticleId-8741%2CarticleId-8636.html)

**Molecular Biologists**
• [Evolution Makes Sense of Homologies](http://www.zoology.ubc.ca/~bio336/Bio336/Lectures/Lecture5/Overheads.html)

<http://www.zoology.ubc.ca/~bio336/Bio336/Lectures/Lecture5/Overheads.html>

• [Evidence of Evolution](http://anthro.palomar.edu/evolve/evolve_3.htm)

<http://anthro.palomar.edu/evolve/evolve_3.htm>

• [Chemical Clues to Darwin's Abominable Mystery](http://www.sciam.com/article.cfm?id=chemical-clues-to-darwins)

<http://www.scientificamerican.com/article.cfm?id=chemical-clues-to-darwins>

**Paleontologists**
• [Fossils Can Show How Certain Features Evolved](http://www.ucmp.berkeley.edu/education/explorations/tours/stories/middle/C7.html)

<http://www.ucmp.berkeley.edu/education/explorations/tours/stories/middle/C7.html>

• [Transitional Vertebrate Fossils FAQ](http://www.talkorigins.org/faqs/faq-transitional.html)

<http://www.talkorigins.org/faqs/faq-transitional.html>

• [Shaking the Family Tree](http://www.sciam.com/article.cfm?id=shaking-the-family-tree)

<http://www.scientificamerican.com/article.cfm?id=shaking-the-family-tree>

• [Evolution Makes Sense of Homologies](http://www.zoology.ubc.ca/~bio336/Bio336/Lectures/Lecture5/Overheads.html)

<http://www.zoology.ubc.ca/~bio336/Bio336/Lectures/Lecture5/Overheads.html>

• [Dating Fossils](http://www.enchantedlearning.com/subjects/dinosaurs/dinofossils/Fossildating.html)

<http://www.enchantedlearning.com/subjects/dinosaurs/dinofossils/Fossildating.html>

• [Getting into the Fossil Record](http://www.ucmp.berkeley.edu/education/explorations/tours/fossil/9to12/intro.html)

<http://www.ucmp.berkeley.edu/education/explorations/tours/fossil/9to12/intro.html>

1. Once you have gathered your evidence use the organizer below to synthesize your information so you can share it with your group.

Evidence for Evolution

Your area of interest \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evidence (description or drawings) Significance

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Group information

Area of interest Evidence (description or drawings) Significance

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**Conclusion**
This WebQuest was designed to help you locate evidence for evolution from different areas of science. New evidence for evolution is being discovered every day. No evidence has been found which cannot be explained by evolution. If the future continues as in the past, we can look forward to more information about the genomes of earth's creatures, new discoveries in the fossil record, and the finding of new species in places like the ocean depths and the tropical rainforests. One thing is certain, more evidence will be added to support the theory of evolution.