

Becoming Human

www.becominghuman.org

Instructions: Access the website at **www.becominghuman.org**. Each section of this activity requires you to visit one of the areas at the site, watch video clips and explore multimedia. Go to the Interactive documentary. Notice the top menu bar which has the listing of the areas: | Prologue | Evidence | Anatomy | Lineages | Culture | You can use these links to easily navigate to the different sections.

Prologue

1. After watching the video in the prologue, list three questions you have about human evolution.

Evidence

2. Where is Hadar and why is it significant?

3. Why was the 3.2 million year old hominid fossil found in Hadar called "Lucy"?

4. What is a paleoecologist?

(Use the menu at the bottom titled "Related Exhibits" to access the exhibits related to evidence. The answers to the following questions can be found within the exhibits, you may have to search for them, the words in bold may give you clues about where to search.)

Evidence - Related Exhibits

5. The **scientific method** begins with an observation, information drawn from these observations rests on the principles of scientific thinking. What are the 3 principles of scientific thinking?

6. **Finding fossils** can be difficult, name 4 locations on the earth where significant hominid fossil finds occur.

7. When a fossil is found, **profiling** can be done to answer questions about the organism. How do scientists determine:

The species -

The age -

The sex -

The health –

Anatomy

8 What is the closest living relative to the human?

9. What is a common ancestor?

10. How does the human foot compare to the foot of a chimpanzee?

11. How does the skull of homo erectus compare to the skull of homo sapiens

Anatomy - Related Exhibits

12. Humans are **like other primates** in many ways. Name two similarities between humans and other primates.

13. **Bipedalism** requires anatomical changes in bone structure to allow walking upright. Name one difference between the skeleton of a chimpanzee and a human that aids humans in walking upright.

Lineages

14. Where are most neanderthal fossils found?

15. How did the face of neanderthals differ from modern humans?

16. Suggest one reason why Neanderthals became extinct.

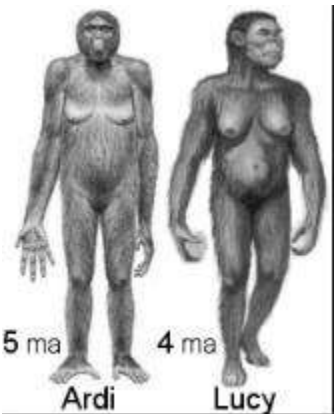
Lineages - Related Links

17 What is the **Missing Link** and why is it not an accurate term for hominid evolution?

18. How **humans populated** the globe is a question among paleoanthropologists. Compare the "Out of Africa Theory" to the "Multiregional Theory"

19. How does evolution explain the **diversity** of people throughout the world, like types of skin color?

Final Project - - Using resources found at the becominghuman.org, research the questions below.

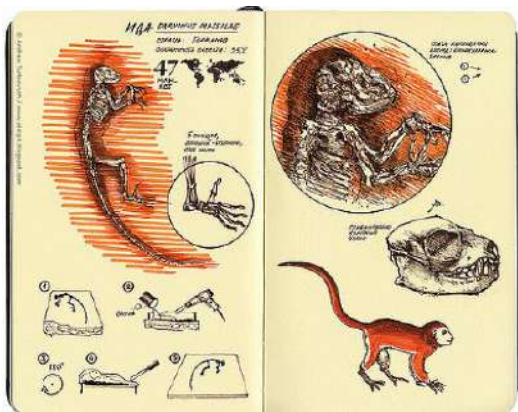


Research Ardi on the internet.

Why is Ardi an important discovery?

Why is Lucy an important discovery? (minimum 100 words)

<https://www.youtube.com/watch?v=EC9alth1ah4>



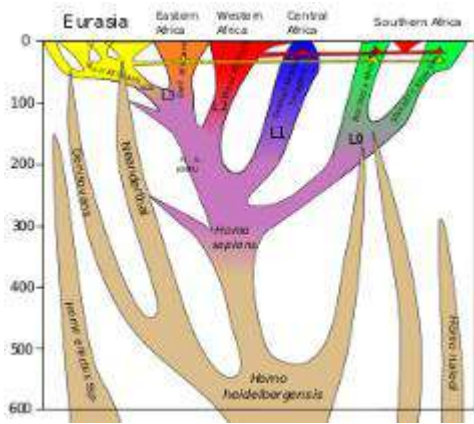
Research Ida on the internet.

<http://www.revealingthelink.com/>

Some suggest that Ida is “the missing link”.

Is there such a thing as “THE Missing Link”?

Why is the discovery of Ida important? (min 100 words)



Recent evidence shows Neanderthals may not really have gone “extinct” in the strict sense of the word.

Read this article and check out the video.

<https://www.theguardian.com/science/2016/feb/17/oldest-known-case-of-neanderthal-human-sex-revealed-by-dna-test>

Summarize the evidence that Modern Humans and Neanderthals interbred (minimum 100 words)

Scientists are discovering that different “species” can interbreed and produce fertile offspring! The boundaries between species is becoming fuzzy! Describe some surprising cross-species interbreeding described in this document:

<https://www.forbes.com/sites/michaelmarshalleurope/2018/08/28/a-long-busted-myth-its-not-true-that-animals-belonging-to-different-species-can-never-interbreed/#140e5b683e65>

Final word on skin color. Pious Jews briefly glance at their fingernails during the Havdalah ceremony marking the end of Sabbath. Some suggest that doing so confirms our earliest ancestor (Adam) had white skin and that in evolutionary terms, colored skin must be derived. Read these articles before responding to the rabbi.

<http://blogs.discovermagazine.com/crux/2019/01/28/human-skin-color-explained-vitamind-folate/#.XGmMRcuWwaL>

<https://www.nature.com/scitable/content/out-of-africa-versus-the-multiregional-hypothesis-6391>

Did the last common ancestor for hominins and chimpanzees have light or dark skin?

Did the last common ancestor for all Modern Humans have light or dark skin?

There have been suggestions that the ancestors to the human lineage and ancestors to the chimpanzee lineage may have interbred. This suggestion is very controversial. Search the internet and answer the following questions:

What evidence suggests that the two lineages may have interbred? (min 100 words)

What evidence contradicts these findings? (min 100 words)