

Name: _____

Date: _____

Introduction to Evolution Videos

Today you will need to watch the following videos on your laptop or phone. Go to www.biologybynapiet.com, the Evolution Unit and click the links for the following videos. **You will need to pause the videos to answer the questions.** These are **due at the end of the period** today! You will have a quiz over Biotechnology tomorrow!

Myths and Misconceptions about Evolution (4:22)

<https://www.youtube.com/watch?v=mZt1Gn0R22Q>

1. Evolution is organisms adapting to their environment (True or False)
2. Individual organisms evolve (True or False)
3. What caused some giraffes to be born with longer necks?
4. What does “fittest” mean in Survival of the Fittest?
5. What is more important to evolution, survival or reproduction?
6. Evolution move toward an “ideal” form of species (True or False)

Humans Origins (3:23)

https://www.youtube.com/watch?v=B9ih_NtCsRw

1. How many years ago did modern humans diverge from a common ancestor to the chimpanzees?
2. How many years ago do the Australopithecus live and where?
3. How many years ago did the *Homo habilis* live and where?
4. Which species is most closely related to modern humans in body structure?
5. What is our closest extinct living relative and how long ago did they live?
6. When did modern humans begin to move out of Africa?
7. What 3 species interbred around 60,000 years ago?

The Science of Skin Color (4:53)

<https://www.youtube.com/watch?v=r4c2NT4naQ>

1. What pigment gives hair and skin color?
2. When skin is exposed to UV for a long time, what happens?
3. What is the harm of UV light?
4. Why did individuals living at sun saturated latitudes of Africa developed more melanin and darker skin?
5. What is the benefit of UV light?
6. What can happen without enough vitamin D?
7. Individuals living far North benefited if they produced less _____ and absorbed more _____.
8. What eventually happened to skin color in the north where there is little UV light?
9. Why do humans have different colored skin?

What is Natural Selection? – it is NOT evolution! (9:18)

<https://www.youtube.com/watch?v=0SCjhl86grU>

1. What does “Descent with Modification” mean?
2. What does “Common Descent” mean?
3. List the 6 facts that common descent is based on.
4. Is genetic variation random or orderly?
5. How many years after the tortoise species was separated from the mainland did they become identified as different species?
6. Explain what selective breeding is (by farmers).
7. Explain what natural selection is.
8. Using what you know about Natural Selection, explain why the tortoises on the different Galapagos islands have different traits (go back and watch this part of the video if you need to).