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Five fingers of evolution worksheet

1,234 Downloads;A worksheet for students to use as a companion to the Ted-ED video "Five Fingers of Evolution". Worksheet is in color PDF form, and an answer key is provided. A bonus evolution quick quiz is included based on the questions created from the Ted-ED video. Evolution refers to the change in a species over a period of time. The five forces that cause evolution to occur in a population are: natural selection, gene flow, mutations, genetic drift and non-random mating. Displaying all worksheets related to - 5 Fingers Of Evolution.Worksheets are Science understanding strand year 10 biological sciences, Teacher resource, Mechanisms of evolution, Evidence of evolution answers in gray background fossils, History of computers from abacus to smart phones, Adaptation and evolution, History of measurement, Microevolution macroevolution work.Click on pop-out icon or print icon to worksheet to print or download. The five fingers of evolution are genetic drift, non-random mating, mutation, gene flow, and natural selection. Evolutionary changes occur for a variety of reasons, and the "five fingers of evolution" is a useful memory tool to help a person remember five common causes of evolutionary change within a population or species. It's helpful because it unsurprisingly uses each of the fingers on the human hand. Before discussing each "finger," let's clarify the type of evolution we are talking about.

Name _____ Period _____



Five fingers of evolution - Paul Andersen



<http://ed.ted.com/lessons/five-fingers-of-evolution>

1. Imagine a gene mutation creates a new color of hair. According to Andersen, what will this do?

a. cause everyone to look the same
b. change the frequency in the gene pool
c. cause most hair colors to disappear
d. create a new species because of the disruption in the food web
e. nothing will happen

2. Genetic drift is a change in the gene pool due to chance. Genetic drift increases as the population decreases. What accounts for this relationship?

3. Which of the following causes of microevolution is represented by the middle finger?

a. small population
b. mutation
c. non-random mating
d. gene flow
e. natural selection

For the purpose of this answer, evolution is a change in the gene pool of a population over a period of time, and the five fingers of evolution explains five ways to change that gene pool. The first finger is the little finger (pinky).

Five Fingers of evolution



By

Liam McGuire

It is smallest finger, so this reminds us that populations can shrink. Populations shrink for all kinds of reasons. Natural disasters, war, epidemics, are more are all causes of population loss, and the individuals lost are likely determined completely by chance. Those that survive are the new gene pool, and the distribution of specific genes is likely no longer exactly the same as what it was. A change in the gene pool (evolution) has occurred. The next finger is the ring finger. A ring finger usually wears a wedding ring, and this ties in to being a part of a couple. Genetically, this should remind us of a concept called non-random mating. For example, if a given population simply stopped mating with any individuals that have a particular trait, then that trait will eventually be eliminated from the gene pool. The third finger is the middle finger. This is the mutation finger. "M" from the word "middle" is the memory trigger for "mutation" because they both start with the same letter. New genes and genetic coding can enter into and change the gene pool through mutation. The fourth finger is the pointer (index) finger. When you want someone to move, you tend to point. This finger reminds us of gene flow. As individuals immigrate and emigrate, they change the frequency of the genes in a particular gene pool. The final finger is the thumb, and it refers to natural selection. Natural selection is dependent on adaptations increasing or decreasing fitness. Organisms with adaptations that increase overall fitness are likely to survive. Those adaptations are essentially being given a "thumbs up." Adaptations that are not good for an environment are given a thumbs down and are not likely to survive long enough to pass on the trait. That in turn changes the gene pool and propels evolution forward. Start your 48-hour free trial to get access to more than 30,000 additional guides and more than 350,000 Homework Help questions answered by our experts. Get 48 Hours Free Access Already a member? Log in here. Approved by eNotes Editorial Team eNotes.com will help you with any book or any question. Our summaries and analyses are written by experts, and your questions are answered by real teachers. Join eNotes ©2023 eNotes.com, Inc. All Rights Reserved Loading... UPDATED July 2019 studytime.co.nz studytime.co.nz