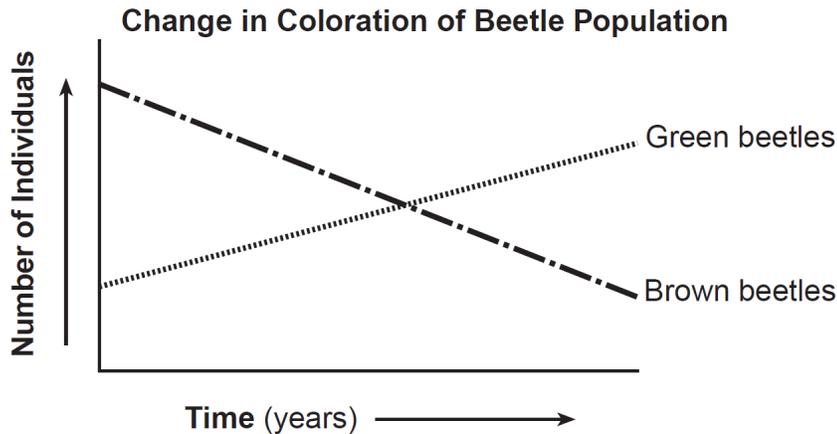


1. The graph below represents the number of brown and green beetles collected in a particular ecosystem.

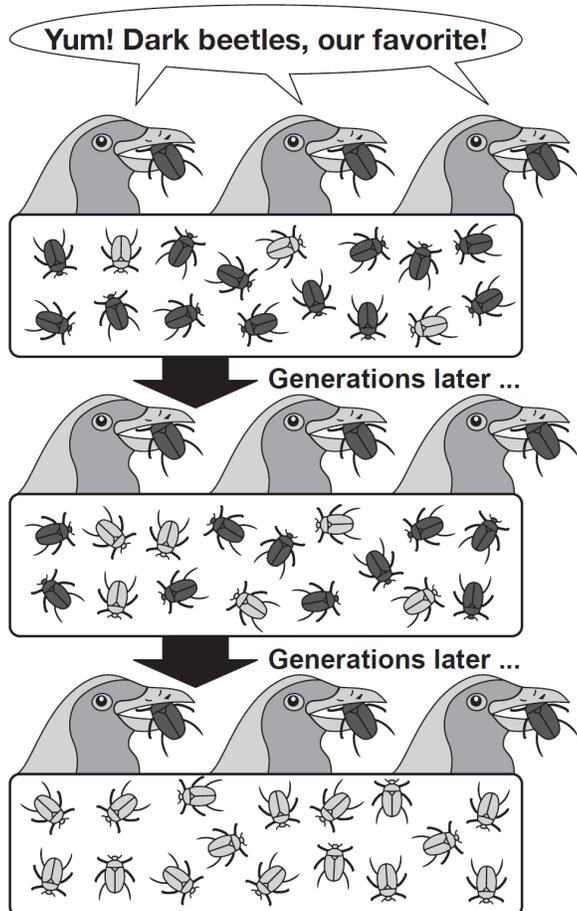


The change observed in the number of green and brown beetles in the population is most likely due to

- A) natural selection
B) selective breeding
C) gene manipulation
D) a common ancestor
-
2. Which occurrence represents an example of evolution?
- A) Exposure to radiation reduces the rate of mutation in leaf cells.
B) A mutation in a liver cell causes a person to produce an enzyme that is less efficient.
C) Cells in a zygote eventually change into bone cells or skin cells.
D) Some antibiotics are almost useless, because pathogens have developed a resistance to these antibiotics.
3. The theory of evolution states that
- A) species that are extinct have no biological relationship to living species
B) different animal species always interbreed to form new and different species
C) species change over time, sometimes developing into new species
D) the environment of Earth is constant over time
4. Which two factors could lead to the evolution of a species over time?
- A) overproduction of offspring and no variation
B) changes in the genes of body cells and extinction
C) struggle for survival and fossilization
D) changes in the genes of sex cells and survival of the fittest
5. Natural selection is best described as
- A) a change in an organism in response to a need of that organism
B) a process of nearly constant improvement that leads to an organism that is nearly perfect
C) differences in survival rates as a result of different inherited characteristics
D) inheritance of characteristics acquired during the life of an organism
6. Over time, data that support the successful evolution of a species would include observations that describe
- A) an increase in the genetic changes occurring in body cells
B) a decrease in the genetic variety carried in sex cells
C) an increase in the proportion of offspring that have favorable characteristics
D) a decrease in the proportion of the population that has beneficial traits
7. Evolution can occur at different rates; however, for evolution to occur, there must be
- A) variations within a species
B) extinction of the species
C) asexual reproduction
D) no change in the genes of an organism

Natural Selection Exit Assessment

8. The diagram below represents an important biological concept.



Adapted from: <http://evolution.berkeley.edu/evolibrary/>

The concept being represented is

- A) overproduction
- B) natural selection
- C) homeostasis
- D) ecological succession

9. Survival of at least a few members of a population after a major environmental change is most dependent on

- A) the population having an individual that is adapted to the original environment
 - B) the population having an individual that is adapted to great changes in the temperature in its environment
 - C) variations in many different traits in many individuals in the population
 - D) no variations in the color of the fur, skin, or feathers of the individuals in the population
10. A shark and a dolphin have similarly shaped bodies and fins. However, these two organisms are not closely related: The shark is a fish, and the dolphin is a mammal. Some species may have similar body structures even if they are not related because they evolved in
- A) similar environments and specific traits increased their chances of survival
 - B) similar environments and were exposed to factors that caused exactly the same mutations
 - C) different environments, but tried to adapt in the same ways so they could survive
 - D) different environments, but ate similar foods that affected their growth and development