<http://www.sumanasinc.com/webcontent/animations/content/evolution/evolution.html>

**The Big Picture**

1. How can evolution be defined?
2. What is the name of the mechanism responsible for adapting a population to its environment?
3. **Check Your Understanding:** Comparative anatomy provides evidence\_\_\_\_\_\_\_\_\_\_ (write your answer below).
4. **Check Your Understanding:** An explanation for the different species of honeycreepers on the Hawaiian Islands is \_\_\_\_\_\_ (write your answer below).
5. What is the difference between the amino acid chain of hemoglobin for a human and a rhesus monkey?
6. **Check Your Understanding:** An explanation for the difference in amino acids between lamprey hemoglobin and human hemoglobin is \_\_\_\_\_\_\_\_\_ (write your answer below).
7. What are the 5 lines of evidence for evolution?

**Evolution in Action**

1. Why is it relevant that the definition of “population” is individuals of the same species in the same area?
2. Why do some flies live only 12 hours and others live 30 hours without food?
3. Which of the following is the hypothesis for your fruit fly experiment?
4. Why select the 20% most starvation resistant flies?
5. What happens when a fruit fly fails to reproduce?
6. Define natural selection.
7. After 60 generations, how long can the average fly go without food?
8. How is evolution defined?
9. Approximately how many bacteria are on your hands at any given time?
10. What does reproductive success mean for the bacteria?
11. Which type of bacteria did natural selection favor? How did the population evolve?