

Variation within Species

Sec. 1.3 Pages 20-24

- You already know that the _____ of an ecosystem relies on the diversity of its _____ and _____ and on the interactions between species.
- But even further, there is variation within a population of a single species.
- Variation within a species is called _____.

Let's use our imagination for a while....

We are all Giraffes!!

- The only food we eat is high in the trees.
 - *Scenario one:* every giraffe is the same. All have short necks. What will happen to the species? _____

- *Scenario two:* Variation: Some long some short necks. What will happen to the species? _____



We are all Rabbits!!

- We need to be able to hide from predators in both the winter and the summer.
 - *Scenario one:* We are all the same. We are brown all year round. What will happen to the species?

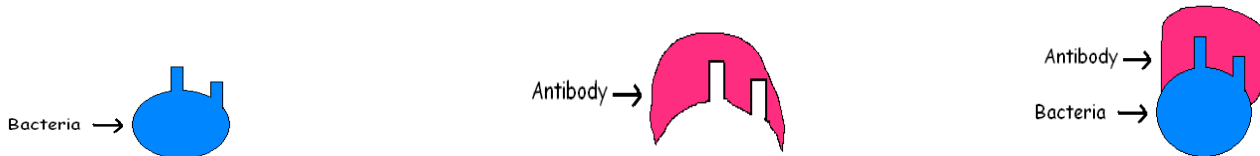
- *Scenario two:* Variation: some are white all year, some are brown all year, some are white in winter, and brown in summer. What will happen? Why?



We are all bacteria!!

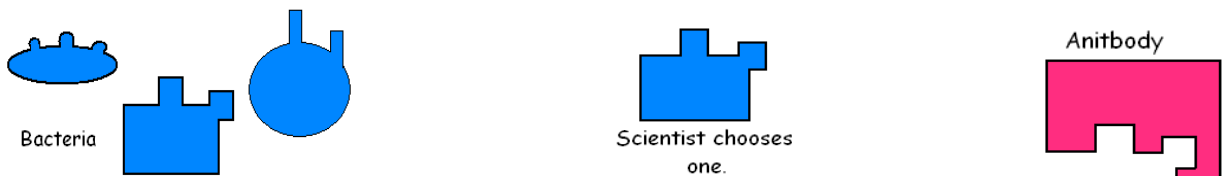
- *Scenario one: We are all identical.* A scientist randomly chooses one bacteria to study. He/she develops an antibody to kill that type of bacteria.
- The doctor administers the antibody to all the bacteria. What happens to the bacteria???

□ _____



- *Scenario two: Variation:* this time there are three variations of the bacteria. A scientist randomly chooses one bacteria and develops an antibody to kill that bacteria.
- A doctor then administers the antibody to all the bacteria. What will happen to the bacteria?

▪ _____



Super bugs!!!!

- Researchers think that the over-prescription of antibiotics has allowed bacterial populations with variation survive.
- The few resistant bacteria that are not killed, _____ and now become a whole population of _____ bacteria.
- Creating “_____”!!
- Most physicians believe that antibiotics should only be used when absolutely necessary.

Natural Selection

- Natural selection occurs when _____
- _____
- From our demonstration today, explain how natural selection occurred in the giraffes, rabbits, or bacteria.

😊 Check and reflect 😊 Page 24 Questions 1-4