

**Evolution**  
**Natural Selection Diagrams**

Name: \_\_\_\_\_  
 Period: \_\_\_\_\_

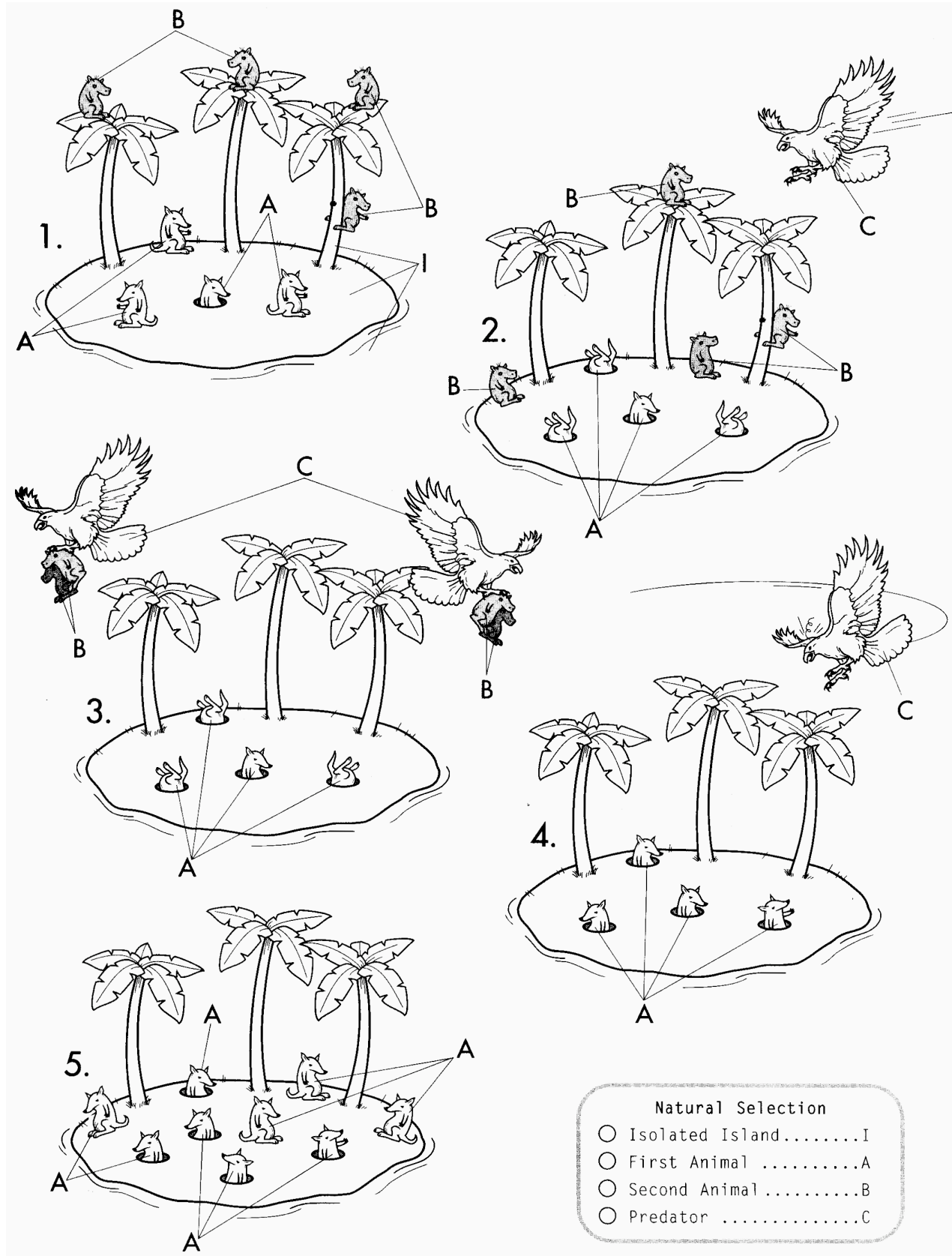


diagram from The Princeton Review Biology Coloring Book (1998) by I. Edward Alcamo

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Follow the directions below to color-code the diagram and to answer the questions. You can use p.310 of your textbook to help you. Use colored pencils, and check off each box  as you finish that part of the instructions.

For this exercise, you will be seeing what happens during natural selection. This idea is at the core of Charles Darwin's theories about evolution. The idea is simple, if you think about it. If something lives long enough to have offspring, it will be able to pass on its traits through its DNA. So, it all comes down to survival. If the organism has traits that will let it survive in its environment, it will probably be able to find a mate and reproduce. If, on the other hand, its traits make it die before it can reproduce (can't catch food, can't escape predators, all of its seeds get eaten, etc.), those traits will no longer be passed on. Able to run faster than the rest of the herd? Your genes will make it to the next generation. Seeds survive the cold when the ground freezes? That trait gets passed on. Have the best courtship display? Love is in the air!

Take a look at the imaginary island in the diagram. In all 5 pictures, color the island in this way:

leaves and trunk of trees with green

ground of the island with yellow

You will now observe what happens in each step of natural selection on the island. As you analyze each step, color the First Animals (A) with orange, and the Second Animals (B) with purple. For the Predator (C) use brown.

**Natural Selection Stage 1**—Color the animals .

Where does animal A live on the island? \_\_\_\_\_

Where does animal B live on the island? \_\_\_\_\_

**Natural Selection Stage 2**—Color the animals .

What does animal A do when the predator arrives? \_\_\_\_\_

What does animal B do when the predator arrives? \_\_\_\_\_

**Natural Selection Stage 3**—Color the animals .

Which animal gets captured by the predator, A or B? \_\_\_\_\_

Why does this animal get captured, and not the other one? \_\_\_\_\_

**Natural Selection Stage 4**—Color the animals .

Why isn't the predator able to capture any more animals on this island? \_\_\_\_\_

**Natural Selection Stage 5**—Color the animals .

What has happened to the size of the population of the remaining animals on the island?

Why isn't the predator around any more? \_\_\_\_\_