

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

Date: \_\_\_\_\_

## Changing Environments

Many changes can happen in an environment. Sometimes those changes can cause changes in a group of living things.

Read the scenarios below about what happened to some living things of the same kind when their environment changed. Underline changes that happened in the environment. **Circle** any examples of traits that show variation in living things.

**Scenario 1:** Air pollution became very bad in one location. The pollution was so bad that tree trunks started turning black. Moths lived in the area and rested on the tree trunks. Some of the moths were white, and some were black. When the tree trunks turned black, birds could easily see the white moths that were resting on the trees. The birds ate a lot of the white moths, but many of the black moths weren't eaten. The black moths were able to survive longer than the white moths to produce the next generation of moths.

**Scenario 2:** A drought on an island caused another kind of change. Birds lived on the island. Before the drought, the birds could eat insects or seeds. When the drought happened, most of the insects died. Some of the birds didn't have strong enough beaks to crack open the seeds so they could eat them. Those birds were left with only a few insects to eat because they couldn't crack open the seeds. Over time, those birds died out, leaving only the birds with bigger, stronger beaks that could crack open the seeds. What trait variation helped some of the birds live long enough on the island to have baby birds?

**Scenario 3:** Sometimes new living things can move into an area. These living things can cause changes for plants or animals that already live in the area. One example is an animal called a **peccary**. Peccaries are similar to pigs. When peccaries move into an area, they can cause changes in the environment. Peccaries like to eat cacti, but they prefer eating cacti with fewer spines. The cacti with more spines aren't eaten, so they live longer and produce baby cacti.

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### Changing Environments Data Table

Use what you underlined and circled in the scenarios to complete the data table.

| Scenario                               | Trait            | Variation                                | Change in Environment                                      | Survival and Next Generation   |
|--|------------------|--|--|--|
| <b>Example: Beetles from lesson 5a</b> | Color of beetles | Red<br>Yellow<br>Brown<br>Green<br>Black | Drought (lack of water) caused the desert to turn browner. | More brown beetles survived longer, so brown beetles are more likely to have baby beetles. |
| <b>Scenario 1</b>                      |                  |  |  |  |
| <b>Scenario 2</b>                      |                  |  |  |  |
| <b>Scenario 3</b>                      |                  |  |  |  |