

# Desert Survival Clues

Read how plant structures and animal traits connect to survival.

**4.13** "Organisms and environments. The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments..."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## 1 READ AND MARK \_\_\_\_\_ Read it twice

**YOUR JOB** Underline each plant structure, and circle the words that tell how it helps the plant survive. Write 1 beside each inherited rabbit trait and 2 beside the acquired rabbit trait.

### Life in a Dry Place

- ① In a hot, dry desert, a cactus must save water. Its thick stem stores water after rare rain. A waxy coating on the stem and leaves slows water from leaving the plant. The coating helps the cactus stay moist when the sun is hot and rain does not fall. These structures help the cactus survive in its environment.
- ② Nearby, a mesquite tree reaches for water in a different way. Its deep roots grow far down into the soil, where they can reach water below the dry surface. Mesquite trees also have small leaves. Small leaves have less surface area than large leaves, so less water can evaporate from them. Deep roots and small leaves help the tree live through dry times.
- ③ Some physical traits are inherited, which means young animals receive them from their parents. A desert rabbit may inherit brown fur and long ears. Other physical traits are acquired during an organism's life. If a rabbit is hurt by a thorn, a scar may form on its leg. The scar is acquired because it was not present when the rabbit was born.

**2 ANSWER WITH EVIDENCE** \_\_\_\_\_ Use the passage

**1** How does the cactus's waxy coating help it survive in the desert?

---

---

**2** Where do the mesquite tree's deep roots reach for water?

---

---

**3** Why do small mesquite leaves help the tree during dry times?

---

---

**4** Which rabbit traits are inherited, and which trait is acquired?

---

---

**3 YOUR TURN** \_\_\_\_\_ Your own words

Write a four-sentence field note about the desert organisms in the passage. Explain how one cactus structure and one mesquite structure help survival, then name one inherited rabbit trait and the acquired rabbit trait.

---

---

---

---

---

---

---

---

**PART 1 • READ AND MARK**

Underline each plant structure, and circle the words that tell how it helps the plant survive. Write 1 beside each inherited rabbit trait and 2 beside the acquired rabbit trait. Accept any marking that follows this job and points at the right text.

**PART 2 • ANSWERS**

| # | QUESTION                                                          | ANSWER                                                                             |
|---|-------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 1 | How does the cactus's waxy coating help it survive in the desert? | <b>It slows water from leaving the plant, helping the cactus stay moist.</b>       |
| 2 | Where do the mesquite tree's deep roots reach for water?          | <b>They reach water below the dry surface of the soil.</b>                         |
| 3 | Why do small mesquite leaves help the tree during dry times?      | <b>Small leaves have less surface area, so less water can evaporate from them.</b> |
| 4 | Which rabbit traits are inherited, and which trait is acquired?   | <b>Brown fur and long ears are inherited. A scar on the leg is acquired.</b>       |

**PART 3 • YOUR TURN (SAMPLE ANSWER)**

A cactus's waxy coating slows water from leaving the plant. Mesquite deep roots reach water below dry soil. A rabbit's brown fur is inherited from its parents. A leg scar is acquired after a thorn injury.

Accept accurate explanations using the passage's plant structures and functions. For rabbit traits, accept brown fur or long ears as inherited and the leg scar as acquired.