

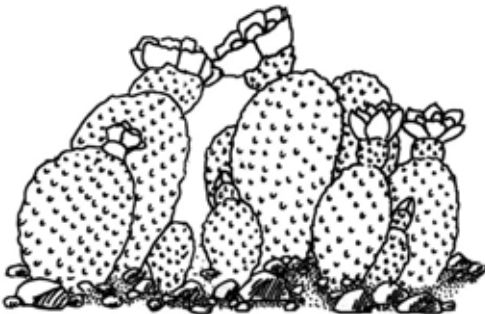
Test Your Knowledge Quiz

Article by ELANOR DEAN
Photos by SHERI AMSEL

The Texas Education Agency (TEA) assesses the knowledge of public school students through testing in 5th and 8th grades via the State of Texas Assessments of Academic Readiness (STAAR) program. The Science STAAR test for 5th grade consists of 36 questions and is split into four categories: Matter and Energy; Force, Motion and Energy; Earth and Space; and Organisms and Environments. The Organisms and Environments questions account for 12 out of 36 of the questions in the Science STAAR test. Conservation Legacy's lineup of youth education programs cover standards and expectations required to pass the Organisms and Environments questions.

The following questions are adapted from real questions on the 5th grade science STAAR test. Take the quiz to see... Could you pass the STAAR?

1. A prickly pear cactus is shown below.



The roots of the prickly pear cactus spread out in a wide underground network. How does this type of root system benefit a prickly pear cactus?

- A. By producing fruit and storing water
- B. By capturing sunlight and getting rid of waste materials
- C. By absorbing water and supporting the plant in loose sandy soil
- D. By releasing nutrients into the sandy soil and taking in oxygen

2. The Chihuahuan Desert is in the Trans-Pecos ecoregion in West Texas. The table right lists some of the types of animals that live in the Trans-Pecos ecoregion and what they eat. Based on the information in the table, which of the following food chains shows one way energy flows in the Trans-Pecos ecoregion?

Type of Animal	Food Sources
Ornate box turtle	Insects, dead animals, cacti
Greater Roadrunner	Scorpions, lizards, rattlesnakes, mice
Rock squirrel	Grasses, mesquite beans, juniper berries
Turkey Vulture	Decomposing animals
Western diamondback rattlesnake	Rabbits, mice, rats, birds, rock squirrels

- A. Juniper berries → ornate box turtles → Greater Roadrunners → rock squirrels
 - B. Grasses → rock squirrels → Greater Roadrunners
 - C. Cacti → ornate box turtles → Turkey Vultures
 - D. Mesquite beans → Turkey Vultures → Greater Roadrunners → Western diamondback rattlesnakes
3. A student observing squirrels in a park records some of the ways that squirrels interact with living and nonliving parts of their environment. All of the following observations are ways that a squirrel interacts with living parts of its environment except –
 - A. Running along the branches of a tree
 - B. Drinking from a puddle of water
 - C. Burying an acorn beside the picnic table
 - D. Communicating to other squirrels about a predator

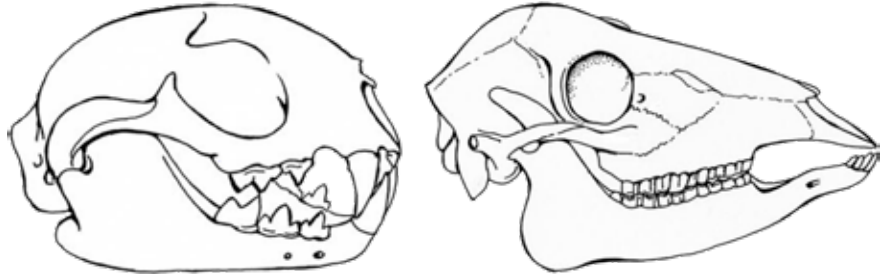




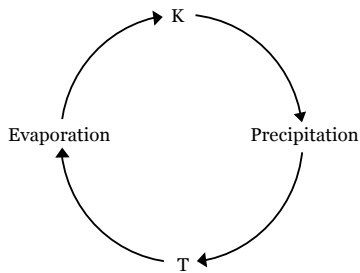
4. Some animals such as bobcats have pointed teeth, while other animals such as white-tailed deer have flat teeth.

The difference in the shape of these animals' teeth is most closely related to –

- A. The type of organisms the animals consume
- B. The sounds the animals make
- C. The habitat the animals live in
- D. The type of predators the animals have



5. A diagram of the stages in the water cycle is shown below.

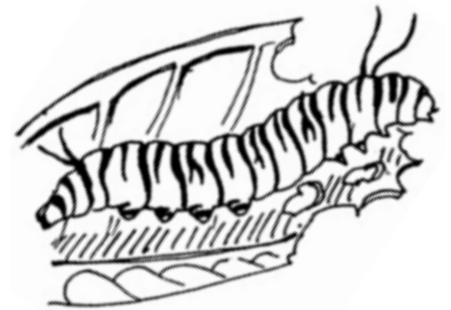


Which of these observations would most likely be seen at Stage K?

- A. Water flowing downhill
- B. Fog forming along a highway
- C. The water level of a lake decreasing
- D. Dark clouds forming in the sky

6. The caterpillars of monarch butterflies eat milkweed leaves. Milkweed leaves contain sap that is toxic to many animals but not to monarch caterpillars. The sap makes monarch caterpillars toxic to predators and protects them from being eaten. Which of these is an inherited trait of monarch butterfly caterpillars?

- A. The size of the milkweed leaves that the caterpillars eat
- B. The ability of the caterpillars to eat toxic leaves without being harmed
- C. The number of milkweed leaves the caterpillars eat each day
- D. The number of leaves on the milkweed plants that the caterpillars visit each summer



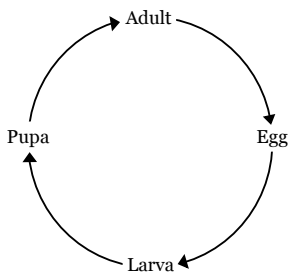
7. Some facts about a bird called the Golden-cheeked Warbler are listed in the box shown to the right.

Which fact best describes one way that this bird changes its environment to meet its basic needs.

- A. Fact 1
- B. Fact 2
- C. Fact 3
- D. Fact 4

- 1. Builds nests in small trees made from woven strips of tree bark and insect silk.
- 2. Song is a buzzy series of notes.
- 3. Hunts for insects on the leaves and bark of trees.
- 4. Once the eggs hatch, the chicks are fed by both parents.

8. The ladybug or ladybeetle is a type of insect. A diagram of the stages in the lifecycle of a ladybug is shown below.



Which organisms have a life cycle that is most like that of ladybugs?

- A. Grasshoppers
- B. Frogs
- C. Butterflies
- D. Bluebirds

ANSWER KEY – 1: C, 2: C, 3: B, 4: A, 5: D, 6: B, 7: A, 8: C

