

# Structure and Function Card Species



## **Producers:**

Prickly Pear Cactus  
Agave  
Palo Verde Tree  
Creosote Bush  
Ocotillo  
Desert Globemallow  
Brittlebush  
Purple Three-awn  
Mesquite Tree  
Saguaro Cactus

## **Herbivores:**

Bighorn Sheep  
Desert Tortoise  
Kangaroo Rat  
Jackrabbit  
Lesser Long-nosed Bat  
Globe Mallow Bee  
Javelina  
Packrat  
Carpenter Bee

## **Carnivores:**

Mountain Lion  
Rattlesnake  
Elf Owl  
Tarantula Hawk  
Tarantula  
Scorpion  
Sonoran Desert Toad  
Bobcat  
Black Widow Spider  
Red-tailed Hawk  
Gila Monster

## **Omnivores:**

Roadrunner  
Zebra-tailed Lizard  
Coyote  
Harris' Antelope Ground Squirrel  
Gambel's Quail

## **Decomposers:**

Desert Mushroom  
Turkey Vulture  
Desert Millipede  
Dung Beetle  
Fig Beetle



**Structure/Function**  
**Prickly Pear Cactus**

I have no leaves, and my roots are shallow to collect rain water near the ground's surface. My stems are shaped like circular pads and store water. They are covered in waxy skin to keep in moisture. My spines provide a little shade and keep away hungry, thirsty predators.

**Structure/Function**  
**Agave**

I have a rosette (rounded) shape. This shape helps capture rainwater and channel it to my base. My leaves are covered in a waxy skin that prevents water from evaporating. My leaves have sharp, spiked edges to discourage predators from eating me.

**Structure/Function**  
**Palo Verde Tree**

My leaves are very small and fall off quickly in dry times. This helps me survive because leaves lose water far more easily than bark. My bark is green, which allows photosynthesis to happen all year long, even without leaves.

**Structure/Function**  
**Creosote Bush**

I can live for at least 2 years with no rain. I have small, waxy leaves that keep water inside. In very dry times, I lose some leaves and branches to save water. I have both shallow and deep roots that collect rain water from the soil better than most other plants.

**Structure/Function**  
**Ocotillo**

I am tall, skinny, and covered in spines to protect me from being eaten by animals. I drop my leaves during dry times to prevent losing water, but when it rains I can grow new leaves within 3 days. I have green-stripped stems to make my food even when I have no leaves.

**Structure/Function**  
**Desert Globemallow**

I have light colored, spiky hairs on my leaves that reflect sunlight and help me to save water. These hairs also keep most animals from eating my leaves. I have colorful flowers and many-seeded fruits that are food for many desert animals.

**Structure/Function**  
**Brittlebush**

I have fuzzy, light colored leaves that reflect sunlight. This helps reduce my leaf temperature and helps me save water. The little hairs on my leaves also trap moisture and can keep me warm in the winter like a blanket.

**Structure/Function**  
**Purple Three-awn**

I am a grass named for the color of my flowers and seed heads. I have special cells in my leaves that save water when I make my own food. My seeds and leaves provide food for many animals, and my leaves make nice nest material.

**Structure/Function**  
**Mesquite Tree**

I am a tree and have an extremely long root system to draw water from deep underground. My roots are the longest of any desert plant and can grow to be up to 200 feet long.

**Structure/Function**  
**Saguaro Cactus**

I am covered in protective spines to keep animals from eating me. I have shallow, wide-spread roots to take in rainwater. One long root goes down underground. My trunk swells to store water for times of drought, and shrinks when I use the stored water.

**Structure/Function**  
**Bighorn Sheep**

I have unique hollow, elastic hooves that allow me to climb steep rocky terrain. I also have very keen (sharp) eyesight to help me identify predators.

**Structure/Function**  
**Desert Tortoise**

I have strong, shovel-like front legs and claws that I use to dig a deep burrow to escape the heat. I get most of my water from the plants I eat. My bladder is like a built-in water bottle. I store water there for my body to use during the dry times.

**Structure/Function**  
**Kangaroo Rat**

I am perfectly fit to live in the desert. I can survive without ever drinking water! I get the moisture I need from my seed diet. I have excellent hearing and can even detect the silent flight of an owl approaching.

**Structure/Function**  
**Jackrabbit**

I use my large ears as cooling vents. When it is hot, I can increase blood flow through the blood vessels in my ears, and my body heat radiates out to the air. I also have large eyes and a slightly flat head that allows me to see 360 degrees.

**Structure/Function**  
**Lesser Long-nosed Bat**

I have good eyesight to see in the dark, as well as an excellent sense of smell. My long wings can carry me 35 miles in a night as I search for food. My tongue is long and brushy-tipped to lap up flower nectar and lick pollen off my fur.

**Structure/Function**  
**Globe Mallow Bee**

I have long hairs on my back legs that work like a basket to carry pollen. My tongue is bristly and straw-like to drink nectar. I prefer to visit certain kinds of flowering plants for my food.

**Structure/Function**  
**Javelina**

I have light-colored hair around my neck and shoulders that looks like a collar. This gives me the name of Collared Peccary. I have long, sharp canine teeth to tear and shred plants and for self-defense. I also live in a large family group for protection.

**Structure/Function**  
**Packrat**

I have large eyes to see at night and in my dark burrow. My large ears help me listen for danger. I carry sticks and cactus pieces in my mouth to cover my underground nest. This keeps the temperature comfortable inside and keeps out predators.

**Structure/Function**  
**Carpenter Bee**

I have strong mouth parts for chewing into wood to build a nest chamber for my babies. I collect nectar and pollen, form them into a ball, and lay an egg on it. I seal up the nest with a mixture of sawdust and saliva.

**Structure/Function**  
**Mountain Lion**

I have strong, long hind legs to jump great heights and lengths. My long tail helps me balance when I leap. I have wide paws and sharp claws to catch prey, and a powerful bite to kill it. My eyes face forward to help me hunt.

**Structure/Function**  
**Rattlesnake**

I have scaly skin that helps hold moisture inside my body. My coloring helps me to hide from my predators and prey. I find prey with my sense of smell and heat-sensing pits on my face. I kill my prey with toxic venom that I inject through my needle-like fangs.

**Structure/Function**  
**Elf Owl**

I have excellent night vision and hearing. I can catch my prey in complete darkness using my ears to pick up their sounds. I am known for my "silent flight," which means I don't make any noise as I approach my prey.

**Structure/Function**  
**Tarantula Hawk**

I have a blue-black body and bright, rust-colored wings. I am among the largest of my kind. I sting tarantulas to paralyze them and lay my egg on them so that my babies have food. I don't like to sting people, but if I do, it is very painful.

**Structure/Function**  
**Tarantula**

I am very sensitive to vibrations in the ground, which tell me if there is prey or danger nearby. I have itchy hairs on my abdomen that I release by kicking my back legs. These hairs irritate (bother) the nose and eyes of predators.

**Structure/Function**  
**Scorpion**

I have a hard exoskeleton that covers my body and protects me from some predators. I also use my stinger for self-defense. I grab my insect prey with pincers and sting it with my tail to paralyze and kill it.

**Structure/Function**  
**Sonoran Desert Toad**

I am active in the summer, mostly in the rainy season. I have large eyes to see at night. I have webbed back feet for swimming, but can also hop on land. In drier, cooler seasons, I can burrow down as much as three feet into the ground where I spend months at a time.

**Structure/Function**  
**Bobcat**

I have long legs and big paws to leap high and far. I have excellent eyesight and hearing to find my prey. I have a short bob-tail with black fur on the top and white on the underside. I have a wide, flat face with longer fur on my cheeks.

**Structure/Function**  
**Black Widow Spider**

I am famous for my dangerous bite. My venom is 15 times stronger than a rattlesnake's! I am able to sense vibrations in my web. I produce an oily substance on the tips of my legs so they do not stick to my own web.



**Structure/Function**  
**Red-tailed Hawk**

I have excellent vision and can see things moving a long distance away. I have strong, sharp talons that help me catch my prey. I use my hooked beak like a built-in knife and fork to tear apart pieces of meat.

**Structure/Function**  
**Gila Monster**

I have a long, narrow body and strong claws to burrow underground. I have a forked tongue to smell my prey. I store my fat in my tail. My bead-like skin works like armor, but I will also use my painful bite in self defense. My bright colors warn predators to stay away.

**Structure/Function**  
**Roadrunner**

I have strong feet and long legs that allow me to run fast. Even though I have wings and can fly, I prefer to walk or run. I have a long beak that helps me catch my prey. With my quickness, I can even hunt a rattlesnake!

**Structure/Function**  
**Zebra-tailed Lizard**

I have a black and white striped tail. I wave it when I see predators to warn them they have been spotted. My stripes also distract a predator that chases me. I can run very fast and even go short distances using just my hind legs.

**Structure/Function**  
**Coyote**

My thick fur keeps me warm in winter. The color of my fur blends into my environment. I can run up to 40 miles per hour to catch my prey, but sometimes need to hunt in a group to get larger prey. I am not picky and will eat many kinds of plants and animals.

**Structure/Function**  
**Harris' Antelope Ground Squirrel**

I hold my bushy tail arched over my back like an umbrella for shade when I am active in the sun. I have a good sense of smell to find seeds that I dig up. I can climb up cactus and tree branches to reach seeds and fruit. To cool off, I lay in the shade on my belly with my legs out to the sides.

**Structure/Function**  
**Gambel's Quail**

I can fly in short, quick bursts but prefer to walk and run on the ground. I eat seeds, insects, and fruits with my short, cone-shaped beak. I live in groups and roost in dense bushes at night for protection from predators.

**Structure/Function**  
**Desert Mushroom**

I am the reproductive part of an underground fungus. I produce spores, which are like tiny seeds that blow in the wind. I appear only briefly when the temperature and humidity are ideal for spreading my spores.

**Structure/Function**  
**Turkey Vulture**

I have long wings that let me soar on rising air currents for hours. I look and smell for dead animals to eat. I am one of the few birds that has a great sense of smell. I have a strong beak to tear my food. I have no feathers on my head and face so I stay cleaner when I eat.

**Structure/Function**  
**Desert Millipede**

I am about 4-5 inches long. I have 2 pairs of legs on each of my body segments. I mostly stay underground but come out in the summer rainy season. I eat decaying organic material. If I am threatened, I coil up and squirt terrible-tasting chemicals from my sides.

**Structure/Function**  
**Dung Beetle**

I am covered in hard, protective armor. I have wings tucked under my armor that open and let me fly to search for poop to eat. I smell my food with my antennae. With my hind legs, I roll bits of poop from its pile to a safe spot where I eat and lay eggs for my young.

**Structure/Function**  
**Fig Beetle**

I am covered in hard, protective armor. I fly in buzzy, clumsy bursts to search for fruits to eat. I lay eggs in rotting organic material such as compost. My babies are worm-like grubs that eat the rotten material, helping to break it down into soil.