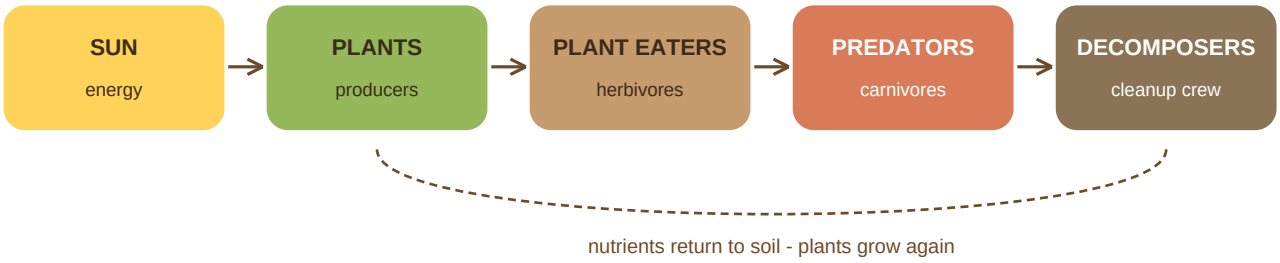
Desert Food Chain Study Guide

A kid-friendly printable handout for homeschool lessons and desert science videos

Big idea: A desert food chain shows how energy moves from the sun, to plants, to animals, and finally back to the soil through decomposers.



1. What is a food chain?

A food chain shows how energy moves from one living thing to another. In the desert, almost every food chain begins with sunlight. Desert plants capture sunlight and use it to make food. Animals get energy by eating plants or by eating other animals.

The desert may look quiet, but many living things are connected: cactus, creosote bush, grasshoppers, beetles, kangaroo rats, lizards, snakes, hawks, coyotes, vultures, fungi, and bacteria.

2. The main links in the desert food chain

Link	What it means	Desert examples
Sun	The energy source that powers the chain.	Sunlight
Producers	Plants that make food from sunlight.	Cactus, creosote bush, desert grasses, wildflowers
Herbivores	Animals that eat plants.	Grasshoppers, beetles, jackrabbits, kangaroo rats, pack rats
Carnivores	Animals that eat other animals.	Lizards, spiders, scorpions, snakes, owls, hawks, roadrunners
Omnivores	Animals that eat plants and animals.	Coyotes, foxes, some birds and lizards
Scavengers and decomposers	The cleanup crew that breaks down dead plants and animals.	Vultures, ants, beetles, fungi, bacteria

3. A simple desert food chain example

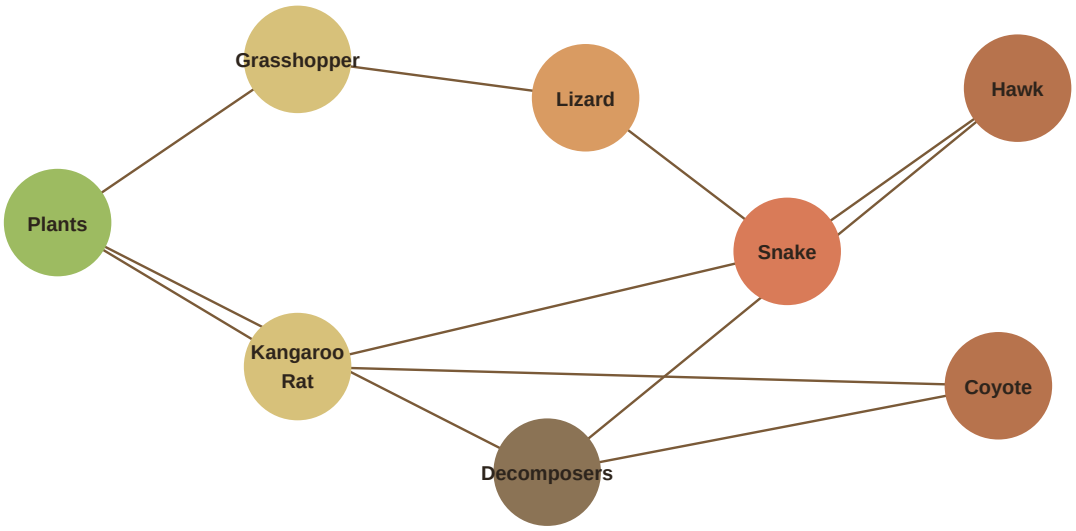
Here is one easy example to remember:

Sun -> desert plant -> grasshopper -> lizard -> snake -> hawk -> decomposers -> soil -> plants again

Energy starts with the sun. The plant uses sunlight to grow. The grasshopper eats the plant. The lizard eats the grasshopper. The snake may eat the lizard. A hawk may eat the snake. When plants and animals die, decomposers help return nutrients to the soil so plants can grow again.

4. Food chains can become food webs

A real desert is not just one straight line. A rabbit may be eaten by a coyote. A lizard may be eaten by a roadrunner. A beetle may be eaten by a spider, a bird, a lizard, or a small mammal. Many food chains connected together make a food web.



5. Why rain matters in the desert

Rain can quickly change desert life. Seeds may sprout, flowers may bloom, insects may appear, and birds may arrive to feed. When the desert dries out again, animals must hide, move, rest, or search farther for food.

Desert animals survive by using energy wisely. A kangaroo rat gets moisture from seeds. A jackrabbit releases heat through large ears. An owl hunts at night when it is cooler. A rattlesnake can wait patiently instead of wasting energy chasing prey.

6. Student activity: Build your own desert food web

Draw arrows to show which living things pass energy to other living things. Arrows should point from the food to the animal that eats it.

Start with these desert items	Add arrows to connect them
Sun	Plants
Cactus / creosote / desert grass	Grasshopper / beetle / jackrabbit / kangaroo rat
Grasshopper / beetle	Lizard / spider / roadrunner
Kangaroo rat / jackrabbit	Snake / owl / fox / coyote
Snake / lizard	Hawk / roadrunner
Dead plants and animals	Scavengers / decomposers / soil

Quick review questions

__ What is the first source of energy in most desert food chains?

__ Why are desert plants called producers?

__ Name two desert herbivores.

__ Name two desert predators.

__ What do decomposers return to the soil?

__ Why is a food web more realistic than one straight food chain?

Learn more at DesertUSA

Use this study guide with the DesertUSA video and the related food chain pages. Add these links in the YouTube video description:

Desert Food Chain for Kids: https://www.desertusa.com/food_chain_k12/kids_1.html

Desert Food Chain / Food Web: https://www.desertusa.com/desert-food-chain/desert-food-chain-intro.html

Desert Food Chain Video Resources: https://www.desertusa.com/video_pages/food_movie.html

Call to action for video: Download this free study guide, then visit DesertUSA to learn more about desert plants, animals, adaptations, and food webs.