



Pencil Cholla

Opuntia arbuscula

Native to the Sonoran Desert. Dense succulent, much branched miniature shrub; the pencil-size olive-green joints with prominent warts and long needle-spines; small flowers bronze to yellowish; club-shaped fruit.



Beavertail

Opuntia basilaris

This low, spreading cactus with short bristles grows 6 to 12 inches high and up to 6 feet wide. The gray-green, jointed stems are wide and flat resembling the tail of a beaver.



Teddy-Bear Cholla

Cylindropuntia bigelovii

The plant has a soft appearance due to its solid mass of very formidable spines that completely cover the stems. This gives it a soft and fuzzy, "teddy bear" appearance. The teddy-bear cholla is an erect plant, standing 1 to 5 ft (0.30 to 1.5 m) tall with a distinct trunk.

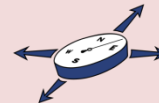
Cacti Honor



INSTRUCTOR BOOK

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This resource concept was originally developed by the College View "Trailblazers"

Cacti Honor

1. Name the chief characteristics of a cactus.

Areoles - Flowers, branches, spines sprout from these

Spines - Spines can vary greatly in appearance, shape, size, and color. Spines are not thorns.

Flowers - Cacti flowers are unique. Cacti flowers are typically quite spectacular and very complex.

Leaves - Most cacti do not have leaves, however, some do.

Origin - All cacti are native to the America's and surrounding islands. With one exception – *Rhipsalis baccifera*.

2. Name three uses of cacti.

Decorating - as houseplants, in dry gardens, or, even as a fence.

Edible Fruit Producing - such as Prickly Pear, *Hylocereus*, Dragon fruit.

Psychoactive uses - the Peyote, *Lophophora williamsii*, is a well-known psychoactive agent used by Native Americans.

Host for bugs - the *Opuntia* is also used as a host for cochineal bugs for the Cochineal dye industry.

3. In what places are cacti the most plentiful?

Cacti can adapt very well to dry climate or rocky terrain like deserts or mountains, but they can thrive in jungles. They prefer a hot, dry climate.

4. Why do cacti thrive in dry rocky climates?

Cacti make use of many structural adaptations, such as shallow roots, fixed spines and thick stems, to **survive in the desert** where there is minimal rainfall. Each of these adaptations allow the plant to collect and store water more efficiently in an environment where water is scarce.



Cows Tongue Cactus

Opuntia engelmannii

It grows several large upward leaves that reach up to 4 feet. The recognizable color and texture is reminiscent of most Prickly Pear varieties, but the unique shape of the Cow's Tongue Prickly Pear sets this species apart from the pack



Jumping Cholla

Cylindropuntia fulgida

It grows at elevations ranging from 300 to 1000 m (1000 to 3000 ft). The jumping cholla is an arborescent (tree-like) plant with one low-branching trunk. It often grows to heights of 4 m (12 ft), with drooping branches of chained fruit.



Cane Cholla

Cylindropuntia imbricata

The above-ground part consists of much-branched cylindrical stems, the end joints being about 3 cm in diameter. The joints, unlike those of some chollas, are hard to detach. The stems are highly tubercular (lumpy).



Saguaro

Carnegiea gigantean

A Large Tree-sized cactus which can grow to be over 70 feet tall. It is native to the Sonoran Desert in Arizona, California and Mexico



Arizona (fishhook) Barrel Cactus

Ferocactus wislizeni

Typically grows to a diameter of roughly two feet and a height of 3-6 feet. Also known as the fishhook barrel cactus, candy barrel cactus, compass barrel cactus, and southwestern barrel cactus.



Coast Barrel Cactus

Ferocactus viridescens

Mostly native to San Diego County, California, gaining its other name of San Diego Barrel Cactus. Usually wider than tall and less than 30cm in height. The flesh is bright green and arranged into several ribs covered in arrays of long spines.

5. As a group develop a Christ centered parable using cactus as an as the main illustration.

6. Locate and write the location of at least 15 species of Cacti in the Desert Dome. The following pages are photos of Cacti found in the Desert Dome. Write in the desert region where you find them.



Pinkflower Hedgehog Cactus

Echinocereus fendleri

The erect stems rise about 4 in. Stems are made up of one-jointed, three-dimensionally oval, strongly ribbed parts. Long, curved spines occur from the vertical ribs. Pink to purple, funnel-shaped flowers are borne on the upper part of the plant



Strawberry Hedgehog Cactus

Echinocereus engelmannii

Commonly found in the desert areas of the southwestern United States and the adjacent areas of Mexico. It usually grows in clusters. Stems are about 3 inches in diameter and up to 25 inches high. They have about 10 ribs which are

somewhat flattened and tuberculate.



Creeping Devil

Stenocereus Eruca

Columnar with a very spiny stem which is creamy green in color, averaging 5cm in diameter and 1.5-2 m long with only the terminal end raised from the ground. A height of 20 to 30 cm is normal since this cactus is recumbent.



Coastal cholla

Cylindropuntia prolifera

Cylindropuntia prolifera is a mostly erect, treelike cactus which can approach 3 meters in maximum height. The gray-green segments are narrow and cylindrical, surfaced in fleshy tubercles bearing many brown or reddish spines up to 2 centimeters long.



Prickly Pear

Opuntia Phaeacantha

It has a characteristic prickly pear appearance, with flattened green pads bearing wool and spines. The spines are brown, reddish-brown, or gray, and often over 3 centimeters in length.



Senita Cactus

Lophocereus schottii

Prefers silty flats and rocky hillsides. The Senita, one of the columnar carcti, has many stems up to eight inches wide and 15 feet high., branching up from the base. Each stem has five to 10 ribs. The upper sections the the adult stems produce spine clusters.