



# Desert Terrarium

## Introduction

A terrarium is a miniature controlled environment containing plants in an artificial situation that can closely imitate the natural living conditions of desert organisms. Carefully set up, a desert terrarium can endure for long periods of time and provide students with a close-up look at this "sample" of nature.

## Materials Needed

- ◆ A glass container (e.g. 10 gallon aquarium or a large pickle jar.)
- ◆ Small pebbles, gravel and coarse sand
- ◆ Potting soil
- ◆ Plants, rocks, pieces of wood

## Procedure

1. Make sure the container is thoroughly cleansed (be sure there is no soap or detergent residue left behind.)
2. Spread a one-inch layer of gravel over the bottom of the aquarium. Combine three parts fine sand with one part potting soil. Spread this mixture over the base layer of gravel. Set the soil mixture about 3" deep towards the back of terrarium and slightly shallower in front.
3. Decorate with rocks and small branches.
4. Sprinkle this mixture lightly with water. It's better to underwater than overwater - too much water is deadly for most desert plants. Stick your finger into the soil - if it's damp don't add water.
5. Place several varieties of cactus into the terrarium (it might be a good idea to wear gloves!) Most nurseries carry cacti, or they can be ordered through the mail from selected seed companies and mail-order nursery houses. The following varieties are suggested: Gasteria, Sedum, Crassula, Lithops, Pincushion cactus, Fishhook cactus, Aloe, Astrophytum, Adromischus, Rebutia senilis, Opunita, Night-blooming cereus
6. When planting the cacti, be sure that the roots are covered completely by the sandy mixture.
7. The desert terrarium can be left in the sun and does not need a glass cover. If you cannot leave it in the sun, rig a lamp over the terrarium, put a 60 watt light bulb in the lamp and leave it on for about 10 hours a day.
8. Invite students to create a guidebook on the different Cacti that were selected for the terrarium. What important points would someone taking care of the terrarium need to know in order to keep the cacti alive?

## Key Concepts

- ◆ The environment must supply the needs of organisms.
- ◆ Soils have different properties and abilities to support plants.
- ◆ Changes in environments can be natural or influenced by humans.

For standards correlation please see our website.

## Nature Connections

- ◆ Invite students to imagine that they are living in a different desert and are writing to the animals in the book trying to convince them to come and visit for several days. What features or attractions should be pointed out in the letter?
- ◆ Students may wish to assemble a "Cactus Dictionary." Invite them to research other types of cacti from across the United States or from around the world. Ask students to include an illustration or photograph of each cactus on one page of the dictionary along with relevant information about geographical range, dimensions, etc.

