

# Carnivorous Greenhouse

**Overview** Have you ever seen a man-eating plant? Well, maybe not, but you may have seen a Venus Fly Trap. Such a plant is called a carnivorous plant, since it eats insects for energy. In this activity, you'll make a greenhouse with carnivorous plants so you can observe and track their growth and behavior, including their eating habits.

**What to Learn** Carnivorous plants are heterotrophs. This means they must get their energy from other organisms instead of the sun. They are native to regions with poor soil, so they have learned to get their energy from insects. Such plants are good at catching small animals, such as insects, to eat.

Carnivorous plants also need much water and light, as well as some humidity and air flow. If you cover the terrarium, make sure you leave the lid partially open for air flow. Also, it is very important not to fertilize heterotrophs. In other words, use water and soil with no minerals or nutrients.

## Materials

- clear plastic tub with lid
- sand (regular sandbox sand)
- peat moss
- rubber glove
- water, mineral free (distilled or reverse osmosis)
- spray bottle with mineral free water in it

## Experiment

1. Put on rubber gloves.
2. Put a layer of regular play box sand in the clear container.
3. Next, put a layer of peat moss in the container equal to the amount of sand you just put in.
4. Mix the two layers together using hands.
5. Wet the mix with about 16 oz of mineral free water.
6. Plant your carnivorous plant(s) in the container.

## 4 Things to Remember about Carnivorous Gardens:

- Keep the plant wet at all times
- The water must be as clean as possible. It must be mineral free water, such as distilled or ro.
- The soil must also be as clean as possible. It must be mineral free, so rinse sand, if it is from the beach.
- The terrarium needs lots of sunlight. A window sill is a perfect place to put it.

# Carnivorous Greenhouse Data Table

Date	Plant Type	Growth	Eating Habits

## Reading

Carnivorous plants are native to humid regions with poor soil, therefore they have learned to get their nutrients elsewhere, such as from insects. Carnivorous greenhouses or terrariums also need lots of water and light. Cover the terrarium to create humidity, but they also need air flow, so only cover about ½ way with the lid. If you use artificial light, time it for 12-14 hours per day, because carnivorous plants do need to rest. Some carnivorous plants such as Venus Fly Traps or Pitcher Plants also need to go dormant, so keep them below 40 degrees for 3 months. You can do so by putting them in the refrigerator. Most carnivorous plants only eat about 1-2 insects per month, so don't overfeed them.

## Exercises

1. What is a carnivorous plant?
2. What is another name for a carnivorous plant?
3. What does a carnivorous plant need to thrive?
4. Should we fertilize a carnivorous plant? Why or why not?

**Answers to Exercises: Carnivorous Greenhouse**

1. What is a carnivorous plant? (a plant that gets its energy from insects)
2. What is another name for a carnivorous plant? (heterotroph)
3. What does a carnivorous plant need to thrive? (light, humidity, air flow, insects and water and soil with minimal nutrients)
4. Should we fertilize a carnivorous plant? Why or why not? ( no, because that will burn the roots)