

EARTH GARDENS #26



INDOOR SECTION: **Root Uptake**

Grades 1-6
4 hours

What You Will Learn :

* How roots provide water and nutrients for the above ground portion of a plant.

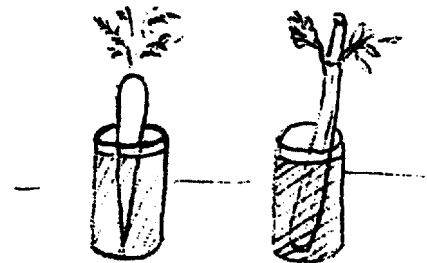
Materials Needed : (2 different experiments)

Method #1 - a) Carrots and celery stalks

- b) Water
- c) Food coloring
- d) Several clear glasses.

Method #2 - a) White carnation flowers with long stems

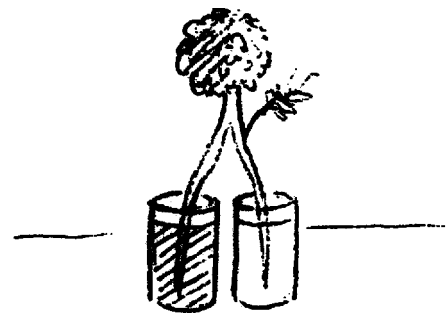
- b) Colored ink or water-soluble paint,
- c) Scissors
- d) Water
- e) Clear glasses.



Steps:

- Method #1-*
- a) Place a carrot or celery stalk into a glass of water, root base down;
 - b) Add 3-4 drops of food coloring and stir with vegetable
 - c) Watch what happens over the next hour or two.

- Method #2-*
- a) Slit the stem of a white carnation and place each stem into a different glass that is full of water.
 - b) Add colored ink or paint to one of the glasses and stir to mix.
 - c) Watch what happens over the next hour or two.



Wrap Up :

1) Describe what you observed in these experiments?

2) What is the role (job) of roots? Can a plant live without roots?

Hint:

After a period of time, the ink should be seen in the petals and/or the leaves. Also, try switching the carnation to a jar with another color of ink midway to get a mottled colored effect. Leave overnight and observe both methods the next morning. It may be necessary to start with warm water to speed the uptake of food coloring in the plants.