Dirt: Who Needs It?

Introduction

Do plants really need soil to grow? No. But they do need nutrients and some sort of medium (material) to help them stay moist. Growing plants without soil is called hydro-ponics. Hydroponics is most often used in green-houses where experimental planting is done.
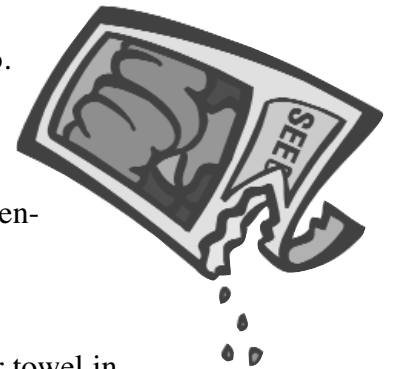
Directions

Instead of dirt, you will be using paper towel in which to sprout your seeds. Use the plastic wrap to make some sort of container, then use your paper towel anyway you'd like to make the "soil." Water your seeds, cover your container and place it where you think your seeds will grow the best.

This is a competition. Each of you will work individually. You will record in your notebooks how you prepared and planted your seeds, where your container is located in relation to the windows, etc., and how much water you are giving it. Each day you will check the seed and record any changes, e.g., if you moved it away from the window or gave it more water.

The first student to have a sprouting seed wins.

Follow-up activities

Have students dissect their seeds to see how far in development they were. What factors may have contributed to some seeds doing better than others? Compare notes to look for clues.

Have students draw the emerging plants, labeling their parts.

Variation

Plant seeds in used tea bags instead of soil disks. Discuss how seeds can get adequate nutrients for sprouting from the tea bags.

Related websites

http://www.growingedge.com/kids/
http://www.hydroponics.com/jack/index.html

Conceptual credit: Jenise Merens, 2000 Louisiana AITC Teacher of the Year