

## **GROW SWEET POTATO AND CARROT LEAVES**

**A. Question:** *What is needed to grow leaves on a sweet potato and carrot?*

### **B. Materials Needed:**

- A sweet potato and end stump of a carrot (about 5cm in height)
- A drinking glass or beaker
- A shallow dish (Ex. petri dish)
- Three toothpicks or thin nails
- Some pebbles or gravel

### **C: Procedure:**

1. Fill the drinking glass halfway with water.
2. Hold the sweet potato with the eyes or buds on the top side.
3. Immerse the potato about one-third into the water of the drinking glass
4. Support the potato by sticking three toothpicks or nails into its side and resting them on the rim of the glass.
5. Next, remove the old leaves from the top of the carrot stump. Place the stump in water in the shallow dish. It can be supported by placing pebbles or gravel around it.
6. Put the sweet potato and carrot in a warm and sunny place and observe foliage growth.

### **D: Anticipated Results:**

New leaves will grow out of the carrot stump and leaves will grow from the sweet potato.

### **E: Thought Questions for Class Discussion:**

1. Where did the potato and carrot get its food from?
2. How does the potato leaf differ from that of a carrot leaf?
3. Would these plants develop new potatoes or carrots?
4. What other plants could be grown this way?

### **F: Explanation:**

The potato, like the carrot, beet or turnip, contains much stored food. When placed in water, the stored food is enough to produce thick foliage. When this food supply is depleted, it needs to be placed in soil and receive other nutrients in order to produce new potatoes and carrots. When a pineapple is cut about 5 cm below the base of the leaves and placed in water, the leaves will continue to grow for quite some time. Nutrients needed for this growth are drawn from the stored food inside the pineapple itself.