

## MARGARET BAHE'S TRANSPIRATION LAB

### Materials:

Small plastic bags  
String  
Labeling tape and markers  
Spray bottle  
Fan  
Flood light  
Balance  
Bedding plants – Impatiens and Vinca work well. Be sure plants have been watered.

**Procedure:** For a group of 3-4 students.

1. Select 4 plants. Remove any blooms present! Any blooms or leaves that fall off during the week should be placed back in the center of the plant so as not to affect the mass.
2. Carefully wrap the root ball of each plant in a foil package
3. Mist one plant well with water and cover with another plastic bag and secure with string.
5. Label as HIGH HUMIDITY.
6. Label the others as: CONTROL, FAN, and LIGHT.
7. Record the masses of each of the four plants.
8. Place each of the four plants in their appropriate conditions:
  - a. CONTROL – adequate light and no draft
  - b. FAN – adequate light and one meter from a fan kept on low for the entire week
  - c. LIGHT – 1 meter from lamp
  - d. HIGH HUMIDITY – adequate light
9. Record the masses of the plants each day for one week.
10. Plot the change in the mass for all plants on a single graph. *Cumulative percent change in mass may be more appropriate.*
11. Extensions might include varying the light intensity or color, removing a portion of the leaves, etc.

\*\*\*\*Teacher Notes:

Be sure all plants are well hydrated. An easy way to do this is to immerse the flat in water for a few hours.

A terrarium makes a good location for high humidity.