

Ecoclimate Lab: Girls In Science, Transpiration & Stomata experiments

Burke stock list:

Microscopes – Burke has 4

Materials:

Collecting branches/leaves

- Bucket w. water
- Clippers
- Collect Branches (1 branch of each type per group of 4)
 - broadleaf (cherry laurel),
 - conifer (cedar);
 - dif types of leaves for stomata (cherry laurel, rhododendron);
 - small branches for IR thermometer (can also use scraps and extras from transpiration experiment)

Microscopes

- Leaves of different types (cherry laurel, rhododendron)
- Microscope *slides*
- Light microscopes (need 40X)
- Clear nail polish
- Permanent markers
- *Clear* scotch tape
- Jars for leaves for Vaseline experiment

Transpiration:

- Burette Stands w/ 2 clamps each (one stand per branch)
- Tubing (Burette/pipets with tube attachment, one per branch)
 - keep a spare pipet in case one breaks or numbers wear off
 - (can we find pipets with only positive numbers?)
- 2-4x Syringes w/tubing that fits into burettes
- Clippers
- Buckets (2 works)
- Flat tubs for filling tubes with water (borrowed those from atmos outreach)
- Branches – broadleaf (laurel), conifer (cedar)
- Vaseline/parafilm
- Timers = Girls in Science Providing (we could consider getting our own of these or use phones)
- Lamps (halogen works, also tried LED grow lamp)

IR Thermometers

- IR Thermometers (minimum of one per group of 4)**
- AND/OR IR camera w/iPad (borrow from atmos outreach) (***FAR PREFERRED!***)
- Vaseline
- Lamps (halogen works, also tried LED grow lamp)
- 2 Jars per group of 4
- Leaves (small branches with evenly displayed leaves work best here)
- Clippers