

Leaf Stomata Microscopy Lab

This lab is easy and yields satisfying results.

Materials:

- Fresh leaves---different leaves have different patterns of stomata distribution. Use leaves from several different plants or trees can compare the differences you see.
- Compound microscope
- Blank microscope slides
- Transparent tape
- Clear nail polish

For this lab, you will create an impression of leaf stomata which can then be viewed under the microscope.

For each leaf:

1. Apply a layer of clear nail polish to a dime-sized section of the underside of the leaf.
2. Allow the nail polish to dry completely.
3. Tape a piece of transparent tape on top of the dried nail polish, leave a piece of taping hanging off the leaf. (This will help you remove the tape in the next step).
4. Gently peel the tape from your leaf. The tape now contains your leaf impression.
5. Place your tape sticky-side-down on a blank slide.
6. Use your microscope to examine your leaf impression. Try using different objective lenses, but your best view will likely be achieved using 400X magnification.
7. Follow this procedure for your remaining leaves.

