

In this experiment we are going to examine stomata under the microscope.

Stomata are pores found on the surface of leaves.

Each single stoma allows gasses to move into and out of the leaf.

Stomata are mainly found on the underside of leaves.

For this experiment we will need the following equipment:

An African Violet or other plant.

A microscope.

A glass slide and a cover slips and clear nail varnish.

First, we need to prepare the microscope slide.

Take a piece of leaf that is smaller than a cover slip and place it on the glass slide.

The lower surface of the leaf should face upwards.

Then carefully cover with the cover slip.

You can use nail varnish to seal the cover slip to the slide for easier viewing on the microscope.

Leave the nail varnish to dry and then place your prepared slide under the microscope and using the times 10 objective lens, focus the microscope carefully.

Then look for stomata.

Carbon dioxide reaches photosynthesizing cells in the leaf by entering through the stomata, and oxygen exits the leaf this way.

Stomata also allow water vapour to leave the plant by evaporation.

At this stage you could make a simple line drawing of what you see and label it.

You could also try comparing the number of stomata on various leaves.