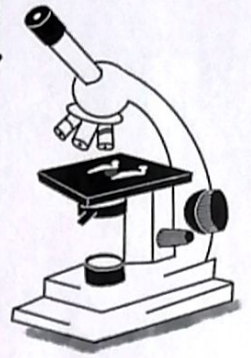


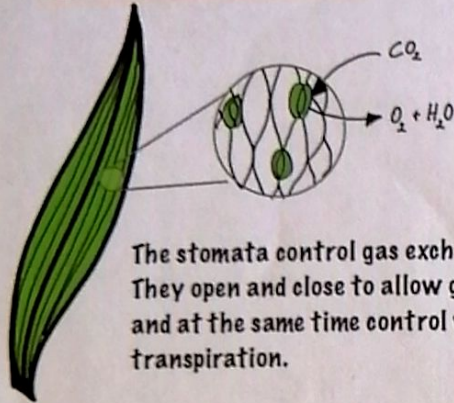
Inspired by Caroline Bleeker, Dutch entrepreneur and physicist. Known for her design and manufacturing of optical instruments.

I spy with my little ~~eye~~ microscope

STOMATA



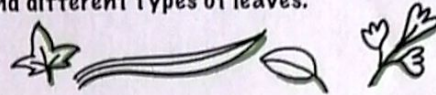
WHAT ARE STOMATA?



The stomata control gas exchange in the leaf. They open and close to allow gas exchange, and at the same time control water lost by transpiration.

HOW TO PREPARE A SLIDE?

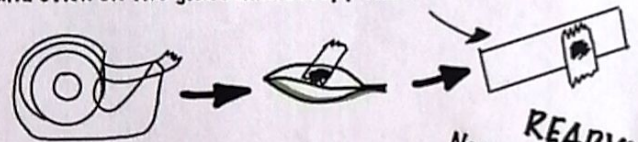
Find different types of leaves.



On your leaf, paint a small area with transparent nail varnish, and let dry.



Take a piece of transparent tape, and stick on top of the dried nail varnish. Press down with your finger, then gently peel off and stick on the glass microscopy slide.



READY!
Now take a closer look with the microscope!

FIND OUT ...

- which side of the leaf has more stomata?
- if all leaves have the same shape cells and stomata?
- if the stomata are open or closed?

HOW TO USE A MICROSCOPE

START HERE

Turn on your microscope.

Using the coarse focus knob, move the stage down completely.

Make sure you have the objective lens with the least magnification pointed downwards.

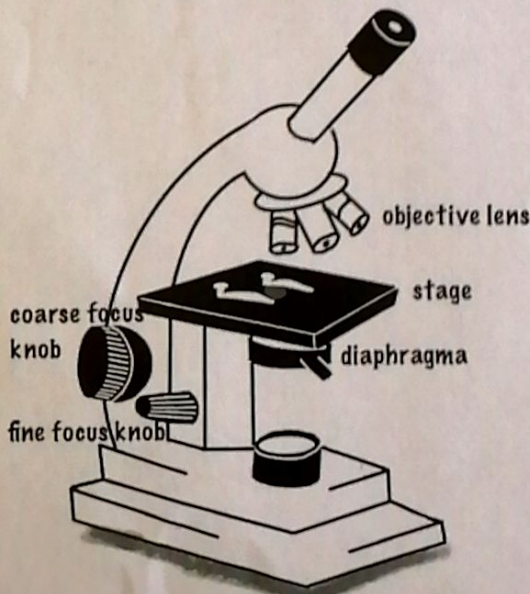
Put the prepared slide under the clips on the stage.

Turn the coarse focus knob until you are able to see the cells.

Turn the fine focus knob slowly until the cells are in focus.

To zoom in even more, first move the stage down again (!), and then switch the lens to a higher magnification.

Adjust the diaphragma to change the amount of light and improve the contrast.



TIPS

- try different types of leaves!
- the best leaves are thin, and not shiny...
- do not leave any fingerprints in the tape stuck over the nail varnish