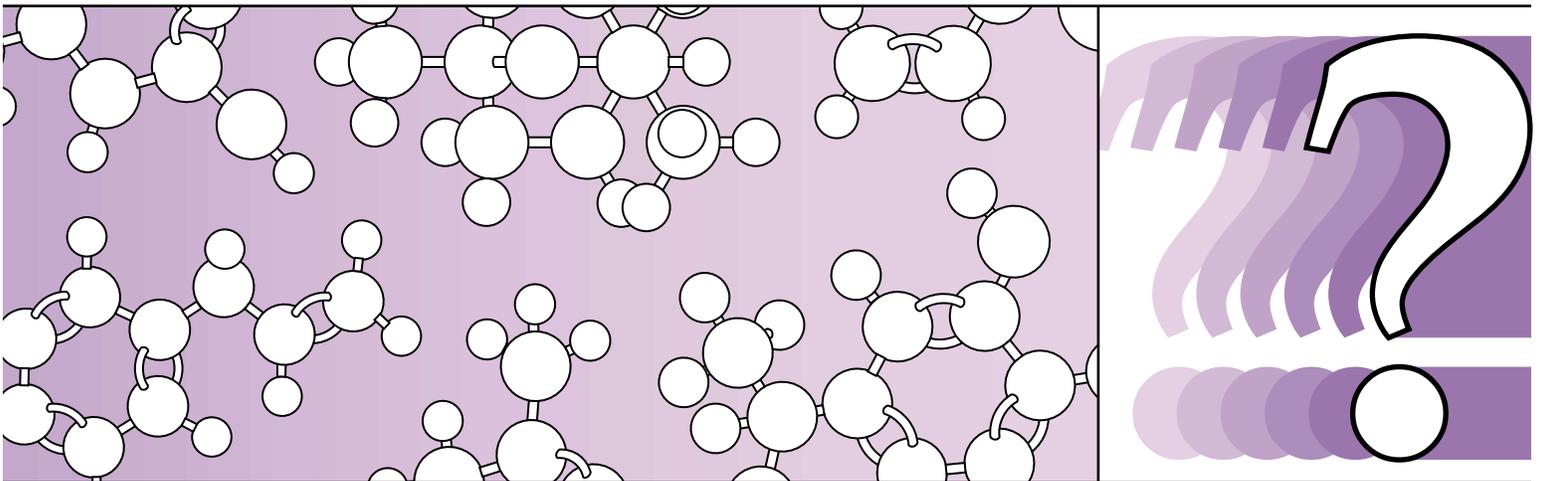


The Pfizer Foundation Biochemistry

Discovery Lab

How do plants eat?



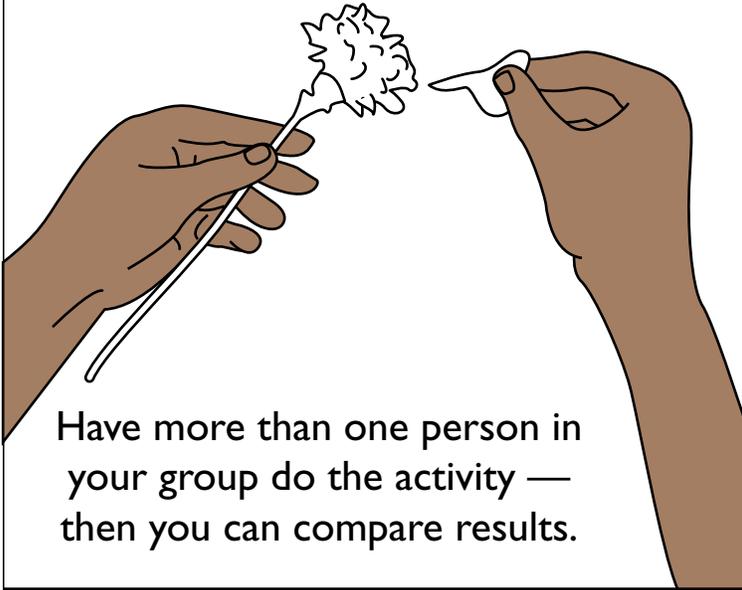
**Plants need food molecules
to stay alive, just like we do.**

**Plants move food molecules
to the parts of the plant
where they are needed.**

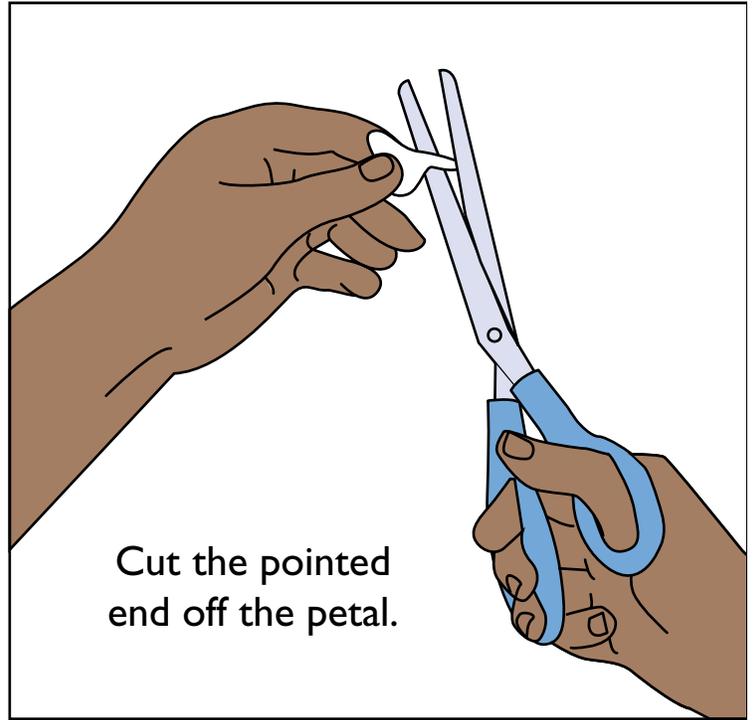
Molecules are tiny
particles that make
up all living things.

**In this experiment, you can
use food color to follow food
molecules in a flower petal.**

Remove a petal from the flower.

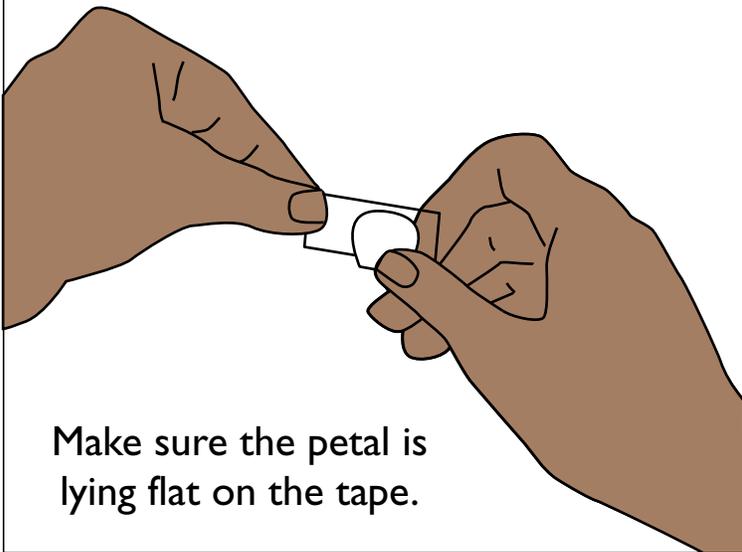


Have more than one person in your group do the activity — then you can compare results.



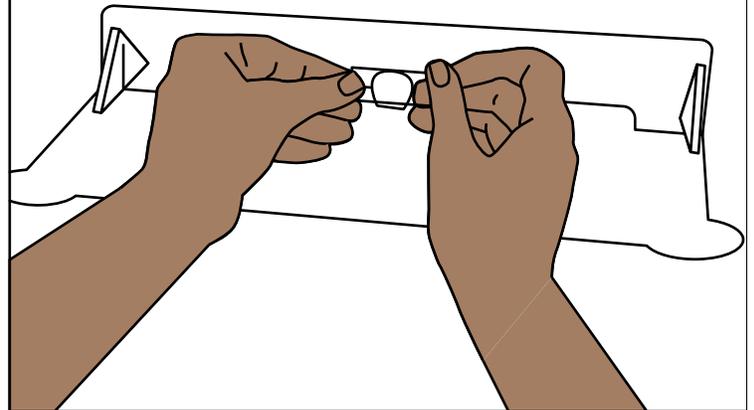
Cut the pointed end off the petal.

Stick the petal on a piece of tape, with the cut side hanging over the edge.

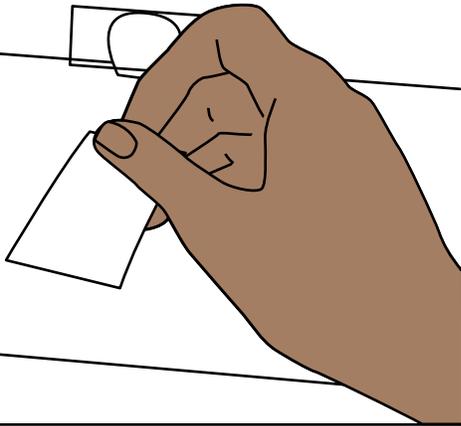


Make sure the petal is lying flat on the tape.

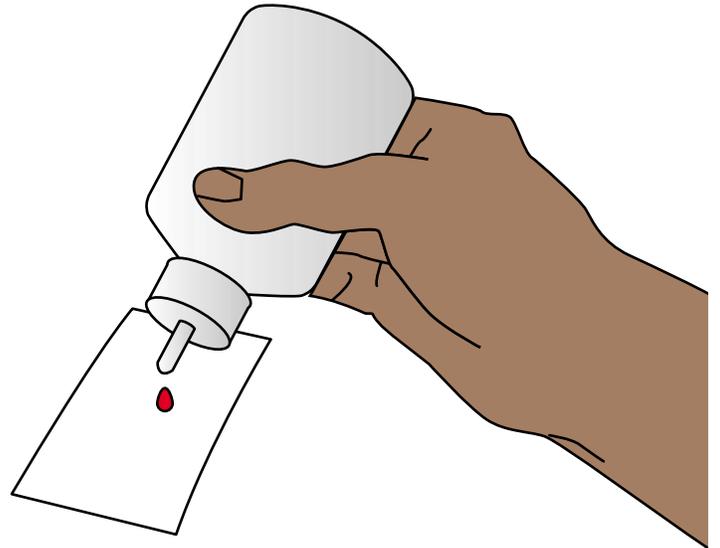
Stick the petal to the clear stand, with its cut side just touching the white base.



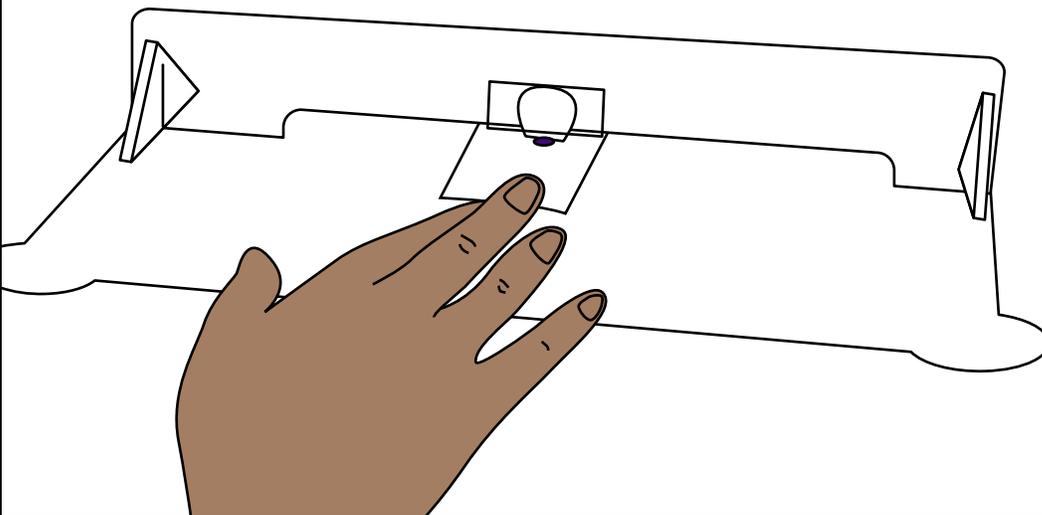
Put a piece of wax paper on the tray, in front of the petal.



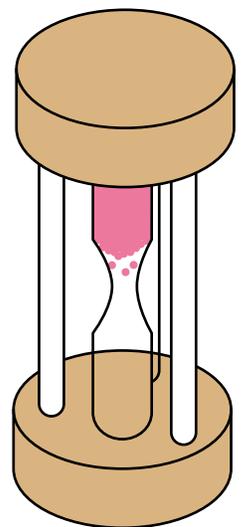
Put a drop of food color on the wax paper.



Slide the wax paper under the stand, so the petal dips into the food color.

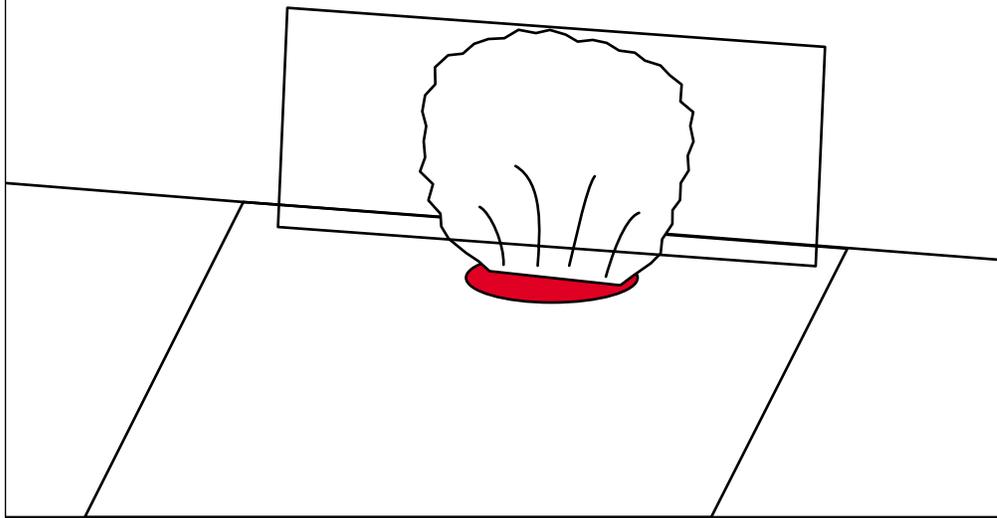


Start the timer.



Watch the food color creeping up into the petal.

The food color flows along tiny tubes in the petal.

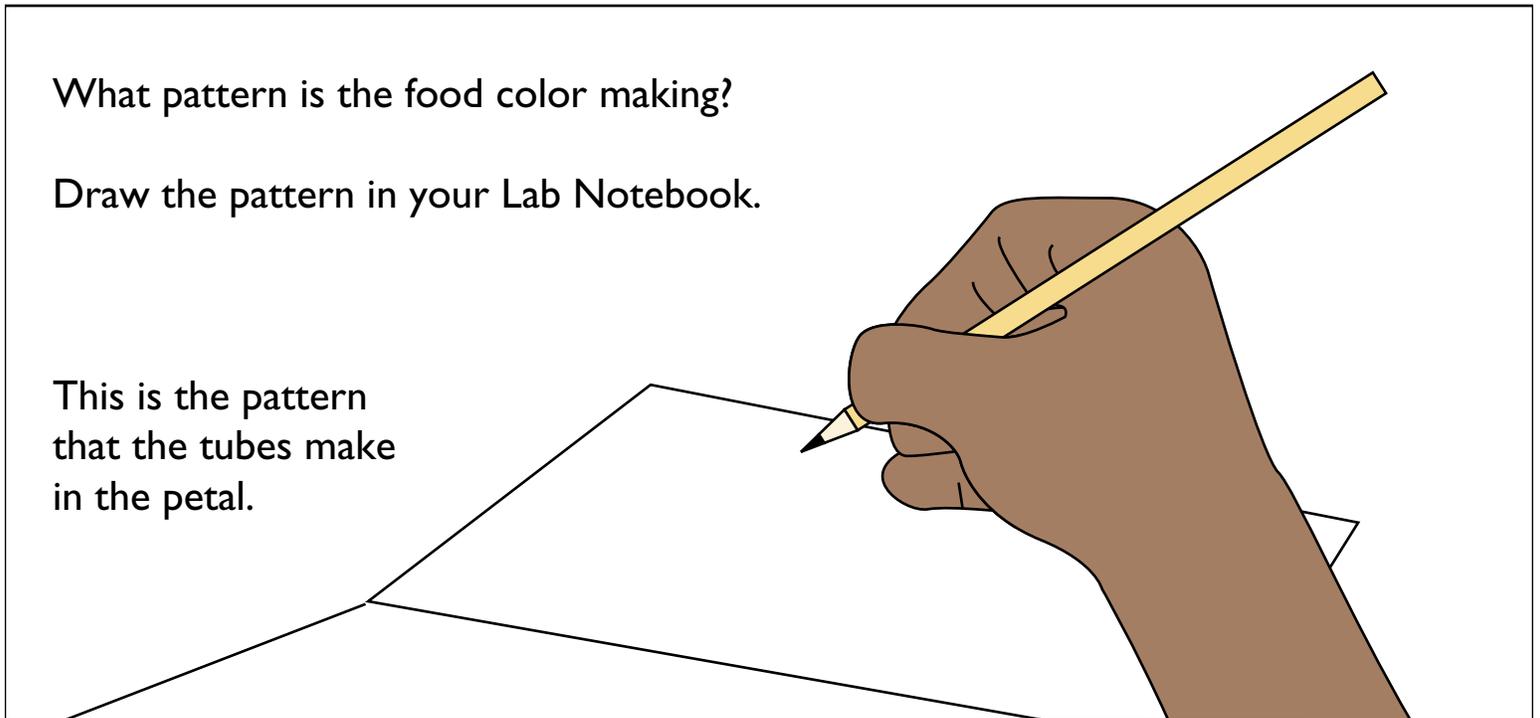


When the timer is done the smaller tubes should be filled with food color.

What pattern is the food color making?

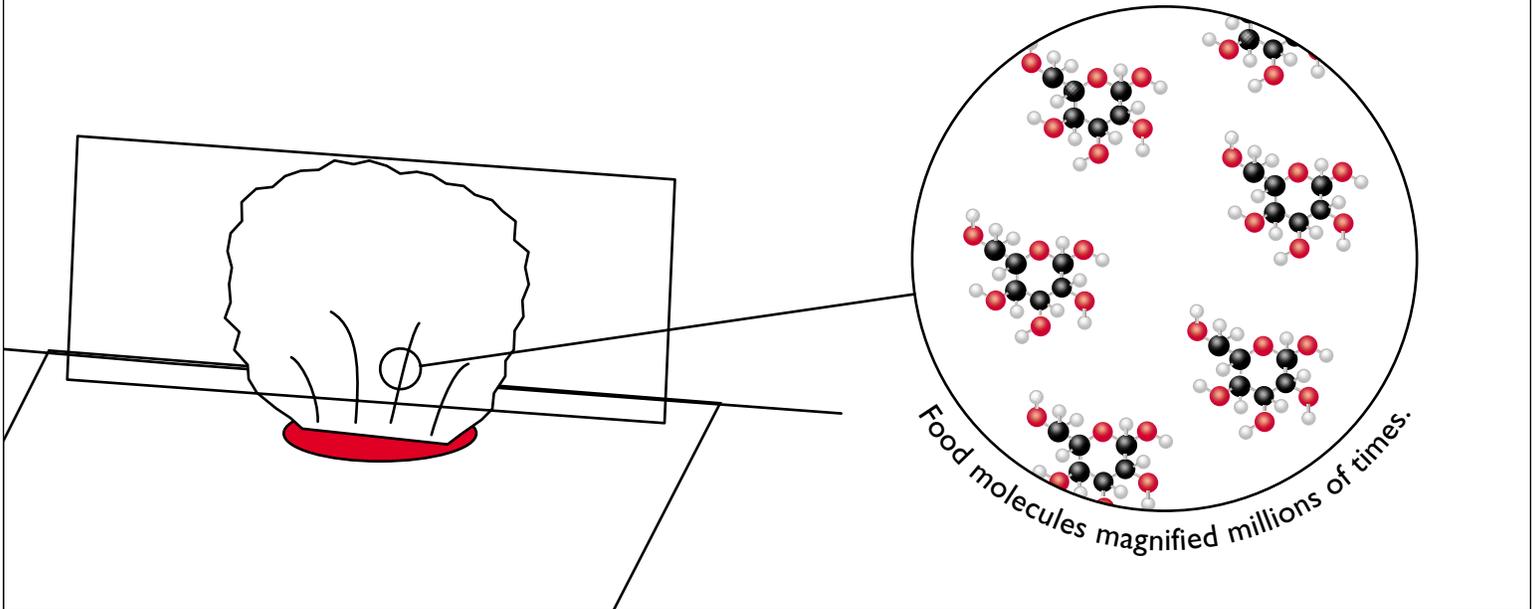
Draw the pattern in your Lab Notebook.

This is the pattern that the tubes make in the petal.



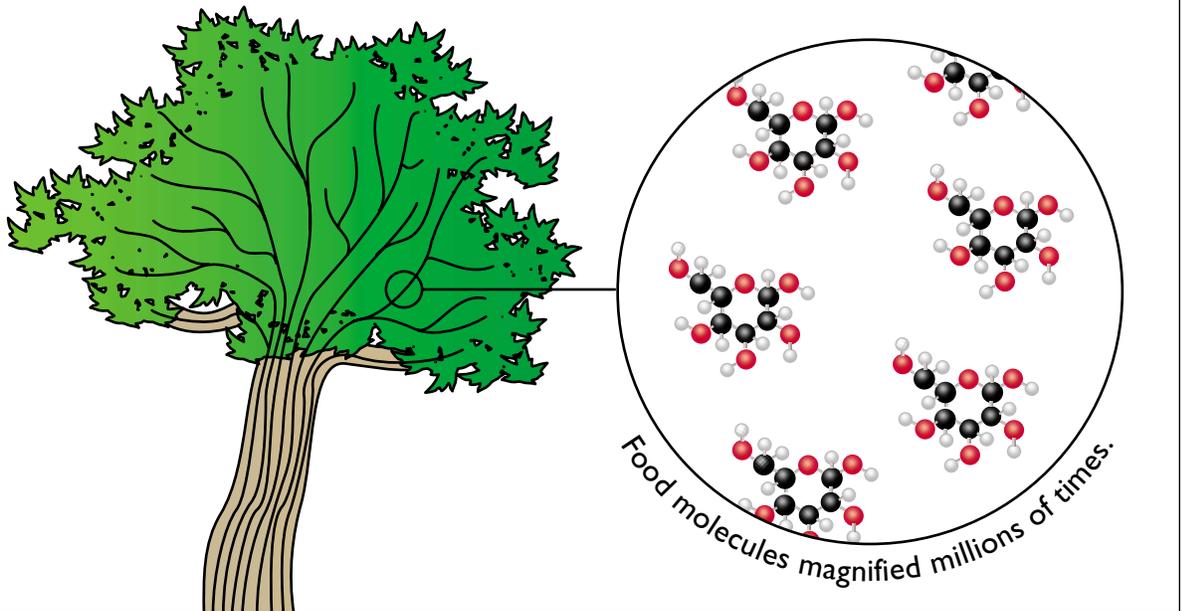
What are the tubes in a petal for?

The tubes carry food molecules to all parts of the petal.

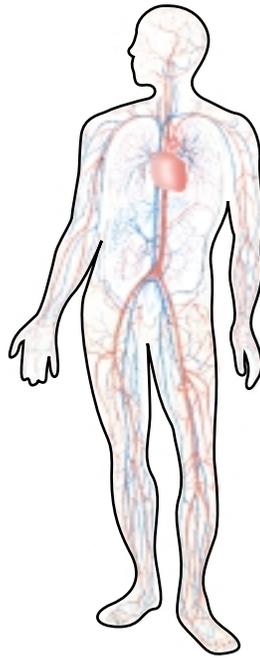


Plants don't just have tubes in their petals.

Tubes are all over plants and carry food molecules everywhere.

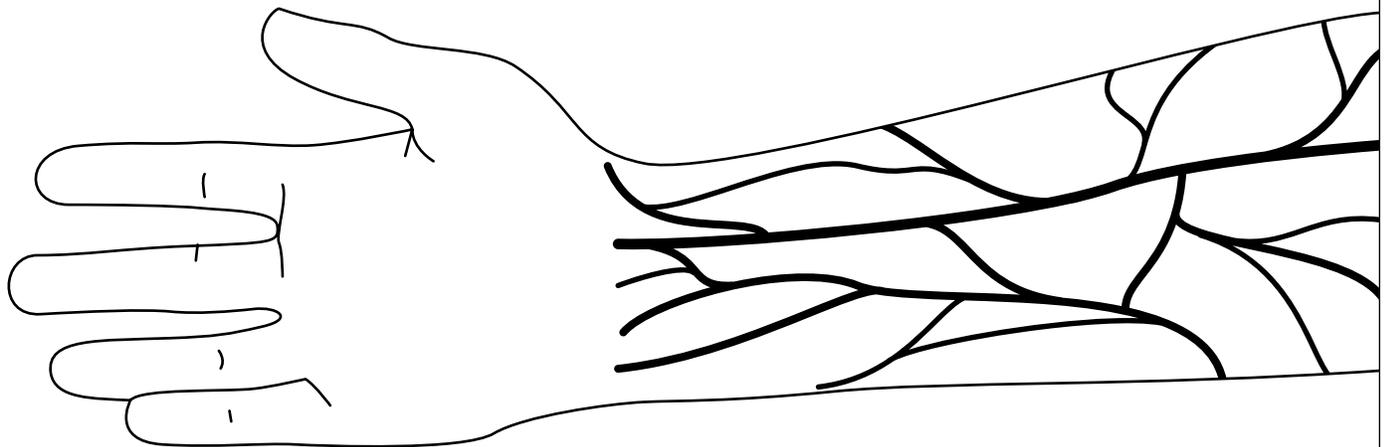


We also have tubes that carry food molecules everywhere in our body: our blood vessels.

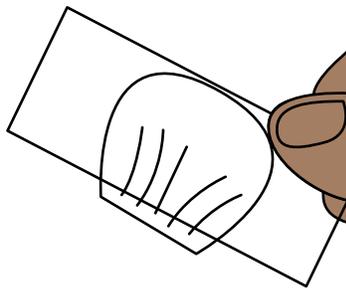


Our blood vessels have a similar branching pattern to the tubes in plants.

Look for branching blood vessels in your arms.



When you are done, tape your petal in your Lab Notebook
or throw it away.



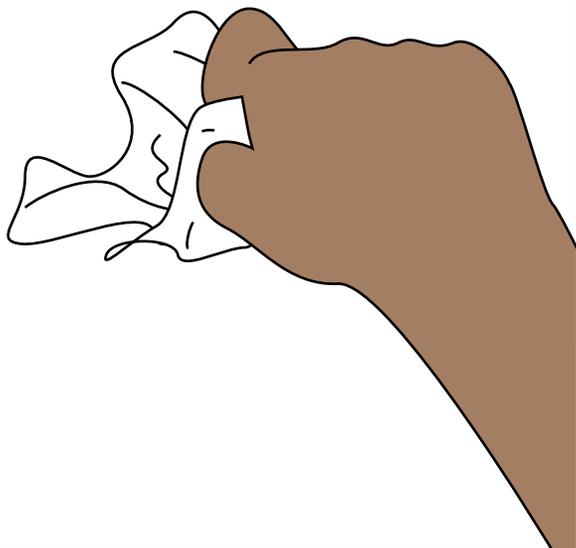
Put another piece of tape over the rest of the petal.
(It will stop the food color from making a mess.)

Do you have questions about your experiment,
or about molecules and plants?

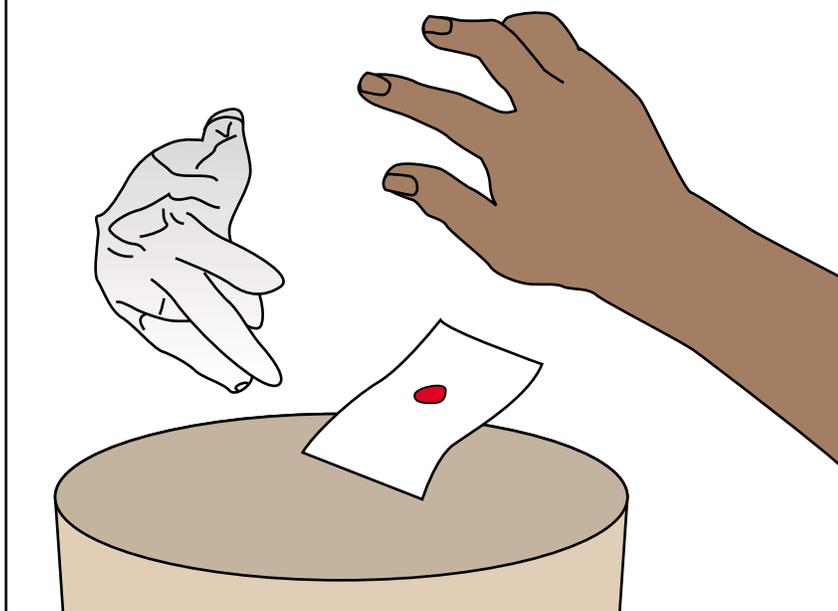
Maybe you can find the answer by
experimenting some more.

Ask a staff person if
you need help.

When you are done, please
wipe up any spilled food color.



Throw the wax paper and your gloves
in the trash.



The Biochemistry Discovery Lab project has been funded by generous support from:

The National Science Foundation: The material is based upon work supported buy the National Science Foundation Grant No. 9814954.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation (NSF).

The Pfizer Foundation and the Camille and Henry Dreyfus Foundation, Inc.