



# PLANT CELLS

Grades 4-8

## OBSERVE CELLS

Students observe plant cells under the microscope.

### STEM TIME

40-60 min

#### Materials:

- scissors
- trash bag to use as a protective layer
- worksheets
- veggie peelers
- potato
- tomato
- any other fun vegetable or fruit
- **Koa shelf-microscopy crate**
- \*microscopes
- \*petri dishes
- \*methylene blue dye
- \*red iodine dye

#### Plant cells

Say: "Today we are going to investigate vegetables with Meeka the microscope to see that plants are made of cells!"

#### Instructions:

1. Show class movie while you prepare the sample prep stations.
2. Cut the ends of a trash bag and open it to create a protective layer table cloth for the students to work on with the dye.
3. Review veggie peeler safety: Peel away from you; thin peels are best for viewing.
4. Remind students that 1 small drop of dye is all they need to use.
5. Remind students to use the bottom light on the microscope so that light can shine through and illuminate the cells.
6. Demonstrate how to prepare a sample for viewing: Peel 3 slices of potato, place them in a petri dish, drop one drop of blue on one slice, one drop of red on another slice, and leave the third natural with no dye. Now they are ready to view in the microscope.
7. Ask students to draw the cells they see on their lab sheet.
8. Let students do the lab. They peel their own peelings, use the dye, and observe their samples with 2X and 4X objective lens settings and bottom lighting.

