

EXPLORE PLANT CELLS

DISCOVER CELLS IN POTATO AND TOMATOES!

"A cell is a complex structure." –Charles Darwin

INTRODUCTION



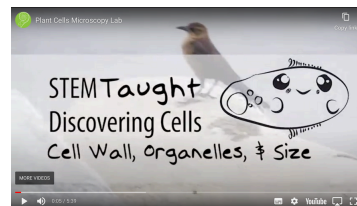
MOVIE TIME

5 min

Say: All living things are made of cells. We will see how cells connect to make living organisms! You will observe the vegetables you brought from home, and potatoes and tomatoes.

Get students excited about the microscopic world.

Let's watch a movie to learn about cells and get ready for the lab.



Link to the class movie:

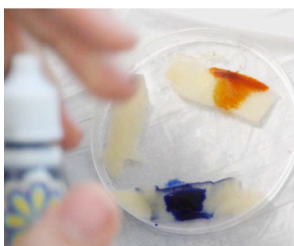
https://youtu.be/Ot_GYJBkfy

STEM TIME

30-60 min

Materials:

- 2 potatoes + 2 tomatoes
- Peelers
- Dye (methylene blue and red iodine)
- Petri dishes
- Student lab sheet or blank paper
- Cloth or trash bag to protect surface



Set up: Students can help put out a trash bag or plastic covering with veggie peelers, petri dishes, a tomato, potato, methylene blue and iodine dye. If you have a lot of students make another station like this. Have students each get a microscope.

Say: Today we are exploring the microscopic world of plant cells!

1. Students come to the station to prep their vegetable peels. Demonstrate how to use a peeler safely (peel away from the body) and how to take a sample (a very thin slice so light shines through) and remind students that one small drop of dye is all they need. The dye will make it easier for them to see the cells.
2. Remind students to observe their samples with bottom lighting.
3. Students explore the cells. Have them look at each others samples and draw what they see!

Discussion: Say: Did you see anything inside the cells? How were the cells shaped? Were they flat or did they have volume? Were the cells connected?

Extension activity: Microscope Art! Have students watercolor paint a cell that they see under the microscope. Read the story!