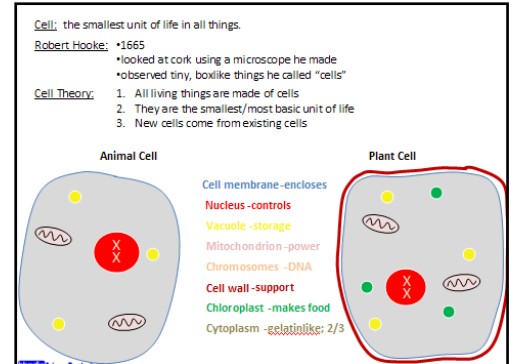


Cell Theory, Plant And Animal Cell Comparison

A great activity to use when you're getting ready to introduce the cell. It begins with Robert Hooke and the 3 tenets of the Cell Theory, and continues on with students drawing a simple animal and plant cell that can be compared.



Materials- colored pencils- each student will need 8, but they only need 1 at a time and can share

1. Give students a blank sheet of copy paper, unless you're giving them the student handout (see last page).

2. Since the day is about cells, we'd better start with a definition of cells.

“the smallest unit of life in all things”

3. That flows right into Robert Hooke, who discovered cells. Let's put down 3 essential things about him.

If your textbook mentions Robert Hooke, read those sections.

- 1665
- looked at cork using a microscope he made
- observed tiny, boxlike things he called “cells”

A good example of the word “irony”- Robert Hooke was studying the flea under the microscope at that same time the plague, carried by fleas, was killing millions. Hooke had no idea!

This is also available as a PowerPoint (see last page).

4. A couple of hundred years after Hooke discovered the cell, there came the cell theory. Have students list the 3 parts to the cell theory.

1. All living things are made of cells
2. They are the smallest/most basic unit of life
3. New cells come from existing cells

5. All of that is a great preparation for the second half of the lesson. We're going to draw an animal and plant cell side-by-side.

Cell: the smallest unit of life in all things.

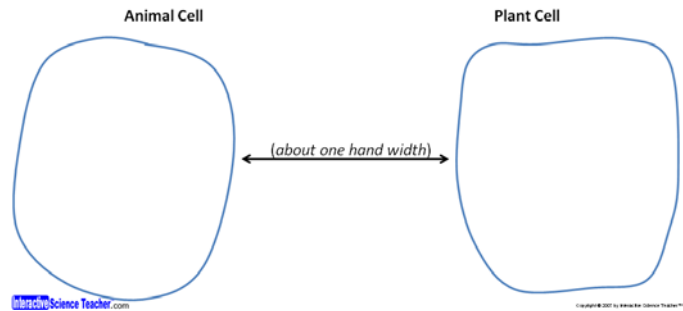
Name:
2/16/2010

Robert Hooke: •1665
•looked at cork using a microscope he made
•observed tiny, boxlike things he called "cells"

Cell Theory:

1. All living things are made of cells
2. They are the smallest/most basic unit of life
3. New cells come from existing cells

6. Title one side "Animal Cell" and the other "Plant Cell".



Cell: the smallest unit of life in all things.

Name:
2/16/2010

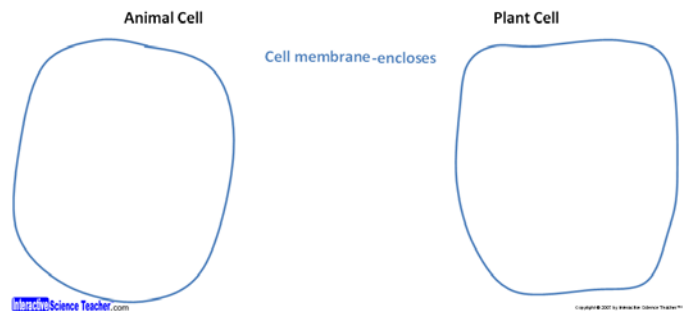
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7. Have students draw a cell membrane for each using a colored pencil (any color they choose). Put a space between the cells about with width of a hand so we have room for labels later on.

In the middle, write "Cell membrane-encloses" in the same color they were drawn.

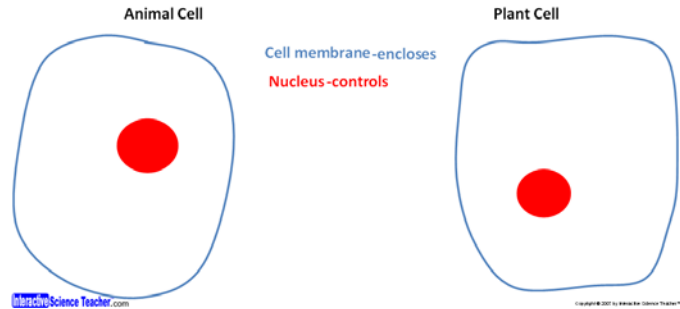


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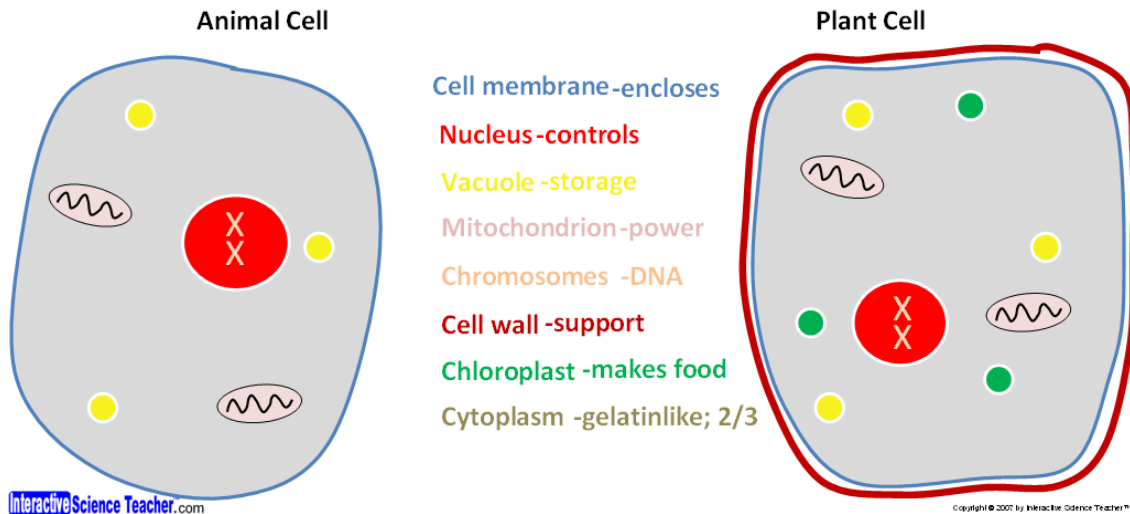
8. Change colored pencils and write "Nucleus-controls" in the middle, and then draw and shade in *lightly* a nucleus for each cell. Don't shade too dark because we'll put chromosomes inside there later.



9. Add the remaining organelles using a different matching color for the text and organelle. Include any other organelle you want.

Do cytoplasm last because you're shading in all the remaining space with that colored pencil.

- Vacuole-storage
- Mitochondria-power
- Chromosomes-DNA
- Cell Wall-support
- Chloroplast-makes food
- Cytoplasm- gelatinlike; 2/3 of cell



Come back and visit InteractiveScienceTeacher.com to upgrade this lesson with:

PowerPoint- lead your students through the lesson click-by-click

Cell: the smallest unit of life in all things.

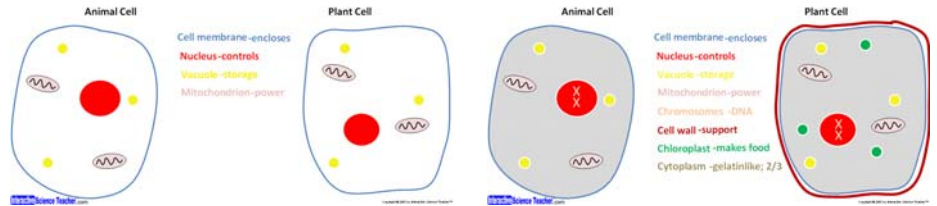
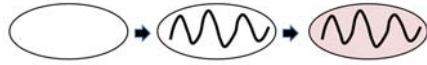
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Student Handout

Cell: _____ Name: _____

Robert Hooke: _____

Cell Theory: _____

Animal Cell

Plant Cell