

PLAN LEARNING EXPERIENCES AND INSTRUCTION

Given the targeted understandings, other unit goals, and the assessment evidence identified, what knowledge and skill are needed?

Students will need to know ...

- Key people and their contributions
- Key vocabulary (parts of cells)
- understand that all living things are made up of cell
- Functions of cell structures
- The cell theory
- Structural differences and similarities between plant and animal cells
- How to organize plant and animal cell structure by function (<http://www.rothamsted.bbsrc.ac.uk/notebook/courses/guide/cell.htm#Org>)
- The difference between unicellular and multicellular organisms
- Cells have a cell membrane that regulates the passage of materials—and the differences/similarities between semipermeable, osmosis, diffusion, active and passive transport
- The relative different sizes of cells
- Health problems that can be caused by cellular “problems”

Students will need to be able to ...

- describe the role of different cell structures
- draw and label different cell parts/structures
- describe different cells and different health problems associated with cell structure disfunctions

What teaching and learning experiences will equip students to demonstrate the targeted understandings?

- Introduction of cells and buildings—and analogy between career life job functions and cell functions
- Pre-Assessment survey
- K-W-L
- Hooke, pictures and facts, computer graphics project & large microscope and cork cells (hands-on pass around)
- Show pictures and tutorials (interactive projection) of cell sizes and types
- Closure each day 1-2 new things you learned
- Warm ups
- Cell cartoons each day (focus activity)
- Paramecium and Euglena microscope activity OR via interactive Internet projection OR internet activity in computer lab---also in fresh and salt water (what would happen to a freshwater fish placed in salt water? A salt water fish placed in fresh water)
- Diffusion/osmosis demo's (copper sulfate,; perfume; lettuce in cold tap and salt water;
- Webquest (they choose one)
- Drawings of cell and animal cells to hang from ceiling (preparation for 3D model)
- Cell model report and diagram 3D
- Plant and animal differences worksheet & use Inspiration for visual organizer afterwards
- The students develop a VENN diagram indicating differences between plant and animal cells
- Creative writing activity
- *If I were* sheet to collect information for the skit—to act out
- Jell-O and or cake models
- Cells and parts in a baggy (students make)
- Vocabulary homework
- Vocabulary chop up
- Vocabulary quiz
- Vocabulary puzzle find
- Functions analogy collage
- Short Skit
- Travel brochure
- Unit Test but includes various levels of thinking (MC/short answer/matching/definitions/analogies etc...)