

CCSD CURRICULUM WRITING OBJECTIVE FORMAT 2007

DISCIPLINE: Science **COURSE:** Life Science **DATE:** June 2007

GRADE: 4 **ID#:** 4s ls c2b1o1 1a 2007 **LESSON LENGTH:** 1 day

1. ESSENTIAL SKILLS:

Access, interpret and process information
Communicate effectively in multiple ways

2. CONTENT STANDARD:

Students know and understand the characteristic, structure, and function of organisms and their systems, the processes of life, and how organisms interact with each other and their environment.

BENCHMARKS:

Knows that organisms differ in structure and function as determined by the requirements for living.

PRIOR LEARNINGS:

- Review what a cell is
- Review the characteristics of living and non-living objects

VOCABULARY:

Cytoplasm, nucleus, chloroplasts, cell wall, cell membrane, mitochondria, vacuole

3. OBJECTIVES/ASSESSMENTS

OBJECTIVE (BASIC):

Content: Differentiate between the structure of a plant cell and the structure of an animal cell. (4s ls c2b1o1 1a 2007)

Context:

Plain sugar cookies (2 per student), red and black string licorice, M & M's, white frosting, Smarties,

Gummy Worms, mini marshmallows, paper, pencils, paper plates, plastic knives

Activity:

1. Students help create a legend for the different parts of the cells using the available ingredients. EX: frosting is cytoplasm, mini marshmallow is nucleus, black string licorice is the cell wall, red string licorice is cell membrane, green M & M's are the chloroplasts, Gummy worms are the mitochondria, Smarties are the vacuoles.

2. Each student will have 2 cookies. Using the legend, they will create a plant and animal cell. When finished, students will make sure teacher checks to make sure the cells are accurate.

Criteria:

Using the model and vocabulary, students will write 2 paragraphs (1 about the animal cell, and 1 about the plant cell) explaining the parts of each cell with 85% accuracy.

ASSESSMENT (BASIC / AUTHENTIC)

- Using the finished models, accurately illustrate and label each of the cells.

OBJECTIVE (COMPLEX):

- Using the available materials, your science book, and web sites do the above activity and then add additional parts to each of the cells. Be sure to include the parts on your legend.

ASSESSMENT (COMPLEX / AUTHENTIC):

- Using the finished models, accurately illustrate and label each of the cells, explaining use of the additional parts included in your cells in a paragraph on the back of the page.

RESOURCES:

- Harcourt Brace Science Book A7-8
- Web site: www.livingcell.com
- Web site: www.Enchantedlearning.com

4. STRATEGIES

INITIAL STRATEGY:

Review what a cell is and its purpose in our world. Review the basic vocabulary of the plant and animal cells and the functions of each.

MODIFYING STRATEGY:

Do activity 1:1 with a peer or adult
Provide a graphic organizer to help students summarize the big idea.

EXTENDING STRATEGY:

Students can research other types of cells including bacteria, viruses, fungi and use materials to create these cells and summarize their purpose in our world.

INTERDISCIPLINARY STRATEGY:

- Create a legend. (Social Studies)
- Write and indent a paragraph with a topic sentence and supporting sentences. Follow multiple step written directions. (Language Arts)
- Sort and categorize. (Math)