# PowerUp! Instructional Unit

**Unit Plan Title: Mitosis/cell cycle**

**Developed By: Cheryl Huddleston**

| **Academic Vocabulary:** | **Grade Level:** | **Length of Unit:** |
|---|---|---|
| Mitosis, interphase, anaphase, telophase, metaphase, prophase, mitosis, cell cycle, cytokinesis | 10 | 2 days – one lesson in unit on cell biology |

**Science/Math Standard(s):** *What standards will provide the focus for this unit?*

1. L. 1.1. Students are able to relate cellular functions and processes to specialized structures within cells.

**Essential Questions:** *What essential questions will focus this unit?*

1. Why are cells microscopic?

2. What controls cell growth and division?

| **Content:** *What topics do students need to know?* | **Skills:** *What should students be able to do?* |
|---|---|
| Students will need to know:<br>Steps of cell cycle, stages of mitosis<br>Cell organelles and functions | Students will need to be able to:<br>Operate a computer independently, read and follow instructions<br>Fill in answers on worksheet using computer<br>Access worksheet from a common file stored o the network |

**Assessment(s):** *What evidence will show that students understand?*

Performance Tasks, Projects: complete web quest worksheet, identify stages of mitosis in classroom lab using prepared slide of onion root tip

Quizzes, Tests, Academic Prompts: pre and post test Achievement series

Informal observations/discussions/interviews: questions/answers that teacher generates as students are working through the assignment. I circulate around the room and provide feedback to students who are making mistakes in the choices offered.

Student Self-Assessment: The cell cycle game provides immediate feedback when students make incorrect choices. They must make the correct choices to finish the game.