

Cell Cycle and Mitosis Advanced Guided Notes

Directions: Preview the notes before reading the lesson. As you read the lesson, fill in the guided notes.

**Only complete this section of notes if you are taking the course for Advanced credit.*

1. Copy and Paste

Talk Like a Scientist: Record any key terms and definitions that are unfamiliar to you.

Key Term(s)	Definition(s)

2. A Cell's Life

Focus Question: What is the cell cycle?

- What is the cell cycle?
- What is a daughter cell?
- What phase do cells spend most of their time in during the cell cycle?
- What is the end result of a complete cell cycle?

3. Entering Interphase

Focus Question: What happens during interphase?

- What is a chromosome?
- What is DNA (deoxyribonucleic acid)?

Complete the table to describe the events that occur during interphase.

Event	Description
First Gap	
Synthesis	
Second Gap	

- How does cancer relate to the cell cycle?

4. Magical Mitosis

Focus Question: How do cells reproduce during mitosis?

- Describe mitosis in your own words.
- List three reasons why new cells are needed within organisms.
- What happens to a cell's DNA before mitosis?
- What happens to a cell's DNA during mitosis?

5. Seeing Double

Focus Question: What happens during cytokinesis?

- Describe what happens during cytokinesis.
- Why does cytokinesis differ between plant and animal cells?
- After one division, a single cell becomes two cells. How many cells would be present after:
 - Two divisions:
 - Three divisions:

6. Mitosis: What Is It Good For?

Focus Question: How is mitosis used for asexual reproduction?

- What is asexual reproduction?
- Compare the use of mitosis for a multicellular and a single-cellular organism.

7. Summary and Assessment

Stop. Set a timer for two minutes and re-read/review your notes. Imagine that you are teaching a second-grade student about this lesson. In a way that a second grader would understand, list three key ideas from this lesson.

Three Key Ideas