

## Flashcards For Mitosis PDF

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What is mitosis?

The process of cell division that results in two genetically identical daughter cells.

What are the main stages of mitosis?

Prophase, Metaphase, Anaphase, and Telophase.

What happens during prophase?

Chromatin condenses into chromosomes, the nuclear envelope breaks down, and the mitotic spindle begins to form.

What occurs during metaphase?

Chromosomes align at the cell's equatorial plane, and spindle fibers attach to the centromeres.

What is the significance of anaphase?

Sister chromatids are pulled apart to opposite poles of the cell.

What happens during telophase?

Chromatids reach the poles, the nuclear envelope re-forms around each set of chromosomes, and chromosomes begin to de-condense.

What is cytokinesis?

The process that follows mitosis, where the cytoplasm divides, resulting in two separate cells.

How does mitosis differ in plant and animal cells?

In plant cells, a cell plate forms during cytokinesis, while in animal cells, the cell membrane pinches inwards.

What role do spindle fibers play in mitosis?

They help separate the chromosomes during cell division by attaching to the centromeres and pulling them apart.

What is the purpose of mitosis?

To enable growth, repair, and asexual reproduction in organisms.