

Mitosis

Phase of Cell Cycle

Event

DNA

INTERPHASE

G₁ (Gap Phase 1)

- “New cell”
- Growth & metabolism
- 1 set of centrioles

S (Synthesis Phase)

- DNA is duplicated

G₂ (Gap Phase 2)

- Growth & metabolism (Prep. for division)
- 2 sets of centrioles

MITOSIS

Division of the Nucleus

Prophase

- DNA condenses
- Nuclear membrane breaks down
- Centrioles move to opposite ends of cell
- Microtubules attach to chromosomes at centromere region

Metaphase

- Chromosomes line up at center of cell

Anaphase

- Chromosomes come apart at centromere = separation of Sister Chromatids
- Daughter chromosomes move to opposite ends of cell

Telophase

- Nuclear membrane reforms
- DNA uncondenses back into chromatin

CYTOKINESIS

Division of Cytoplasm

- Cleavage Furrow (Animal cells)