



# Chapter 6-3

## Mitosis & Cytokinesis



# Spindles



- ◆ Cell structures made up of both centrioles and microtubule fibers that are involved in moving chromosomes during cell division.



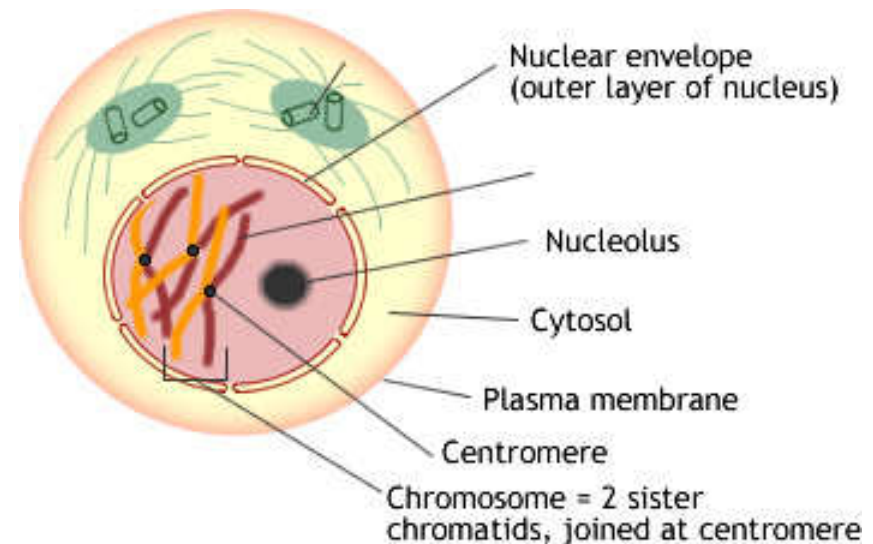
# Centrioles



- ◆ Found only in animal cells and are involved in the formation of the fibers responsible for moving the chromosomes.

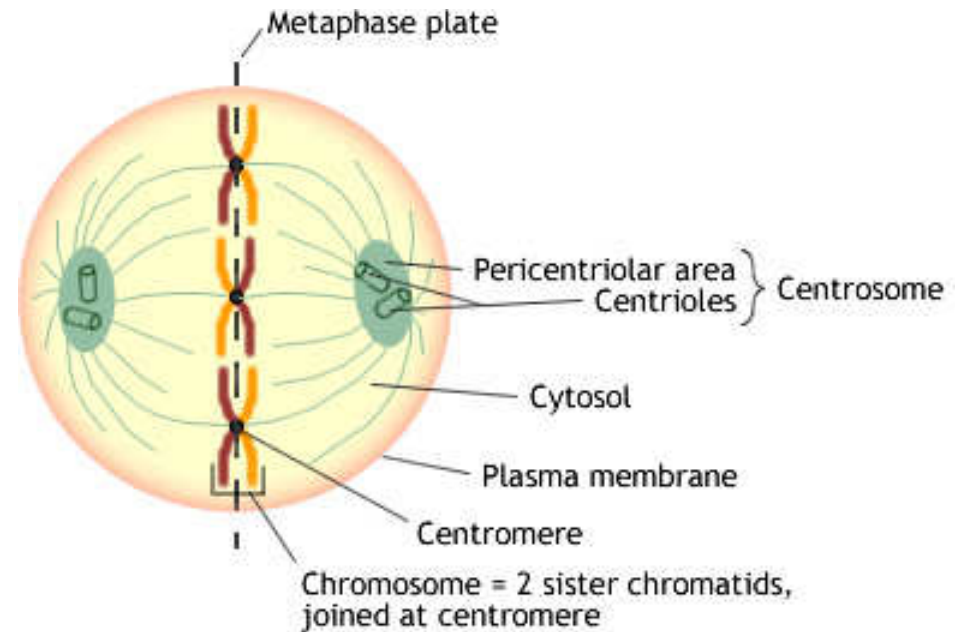
# Prophase

- ◆ Chromosomes become visible
- ◆ Nuclear envelope dissolves
- ◆ Spindle forms



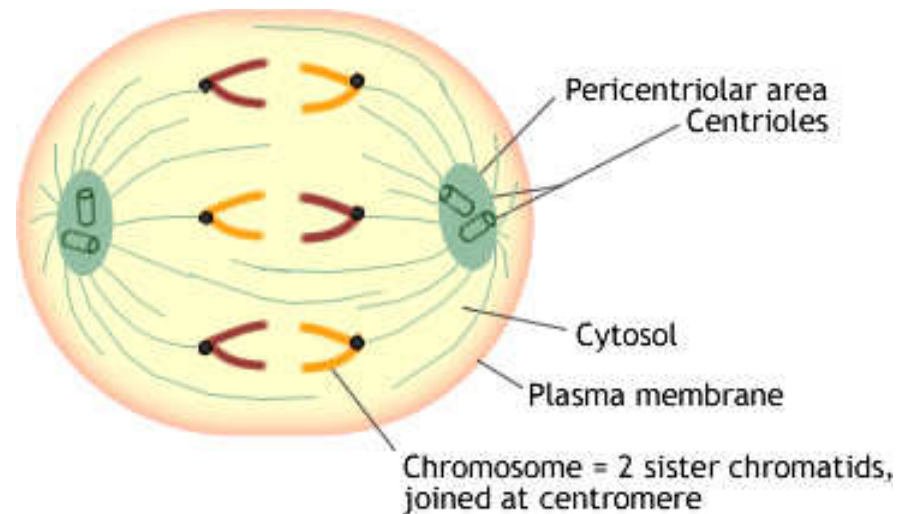
# Metaphase

- ◆ Chromosomes line up along equator



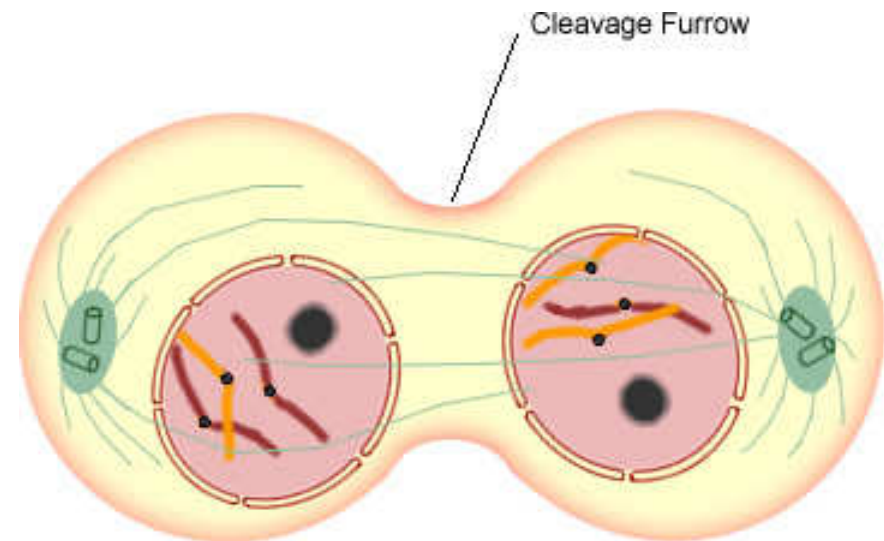
# Anaphase

- ◆ Centromeres divide
- ◆ Chromatids move toward opposite poles



# Telophase

- ◆ Nuclear envelope forms at each pole
- ◆ Chromosomes uncoil
- ◆ Spindle dissolves
- ◆ Cytokinesis begins



# Cytokinesis

- ◆ Cytoplasm of the cell divides in half.
- ◆ Cell membrane grows to enclose each cell.
- ◆ Formation of two separate cells that are genetically identical.

