

# Cell Division (Mitosis)

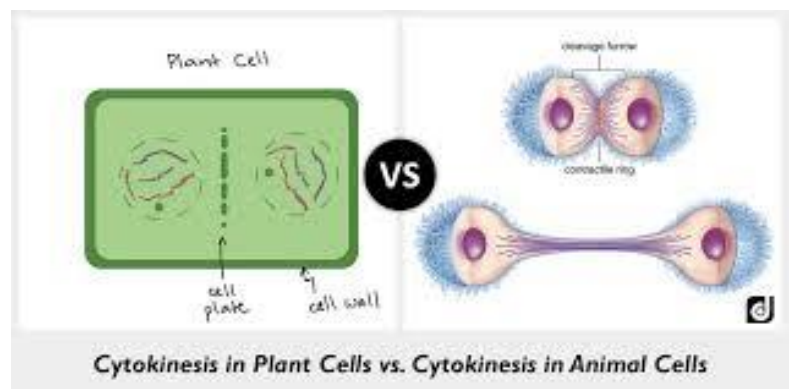
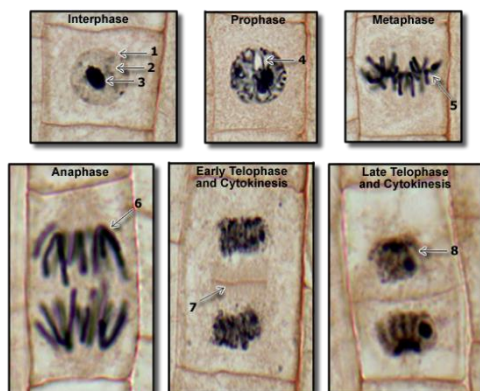
## Main steps during mitosis:-

1. **Interphase:** DNA is replicated along with organelles and other cellular components and the cell prepares for division .
2. **Prophase :** (preparation phase) the DNA recoils . and the chromosomes condense , the nuclear membrane disappears , and the mitotic spindles begin to form.
3. **Metaphase :** (organization phase) the chromosomes line up the middle of the cell with the help of spindle fibers attached to the centromere of each replicated chromosome.
4. **Anaphase :** (separation phase ) the chromosomes split in the middle and the sister chromatids are pulled by the spindle fibers to opposite poles of the cell.
5. **Telophase :**the chromosomes , along with the cytoplasm and its organelles and membranes are divided into 2 portions. The actual splitting of the daughter cells into two separate cells is called **cytokinesis** and occurs differently in both plant and animal cells as is illustrated below .

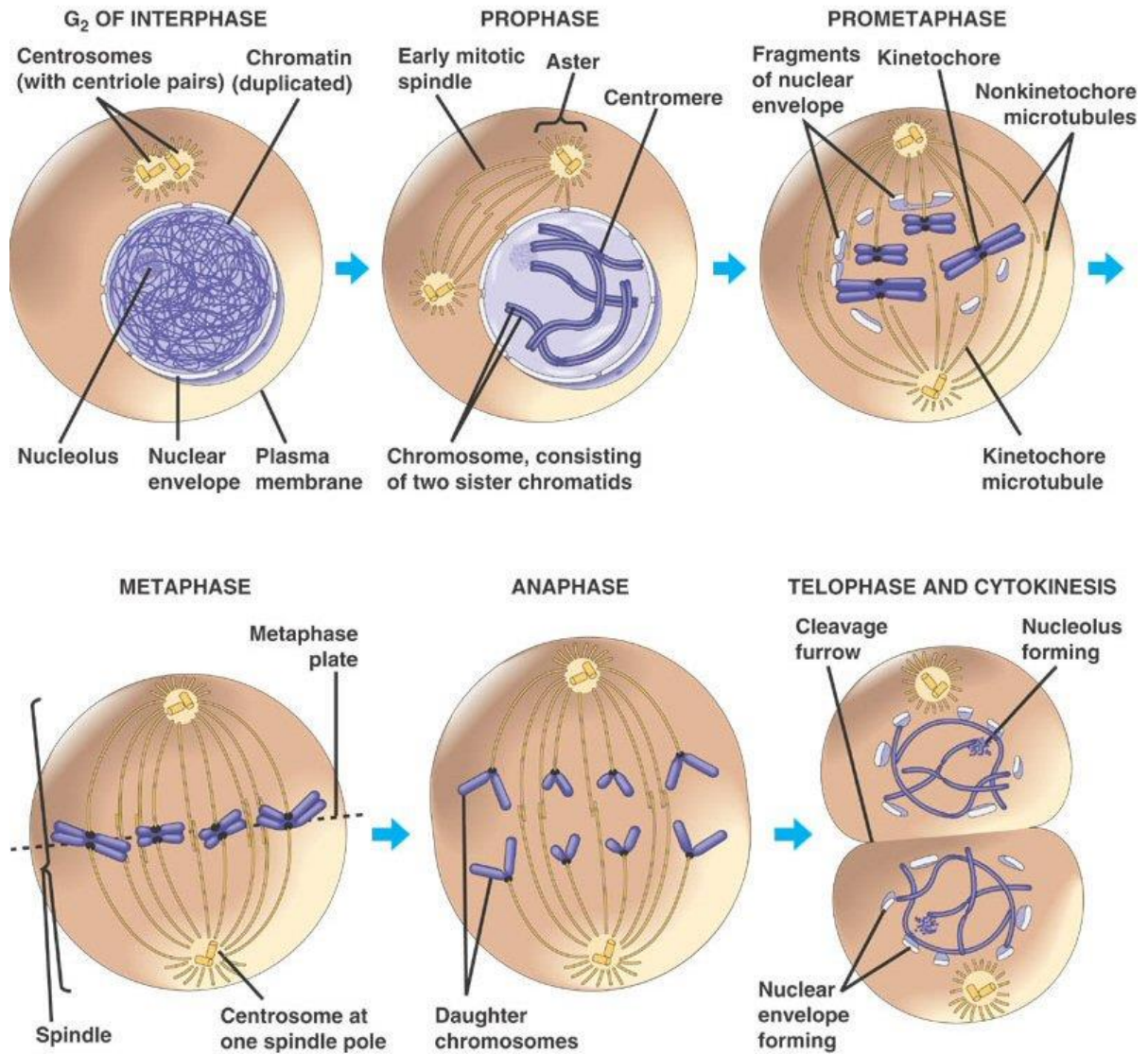
- The cell form a **cell plate**, which starts in the center and moves towards the outer edges to split the parent cell into two daughter cells
- The plant cells do **not** have **centrioles** and **asters**. Plant cells do have centrosomes and this accounts for the formation of a spindle,

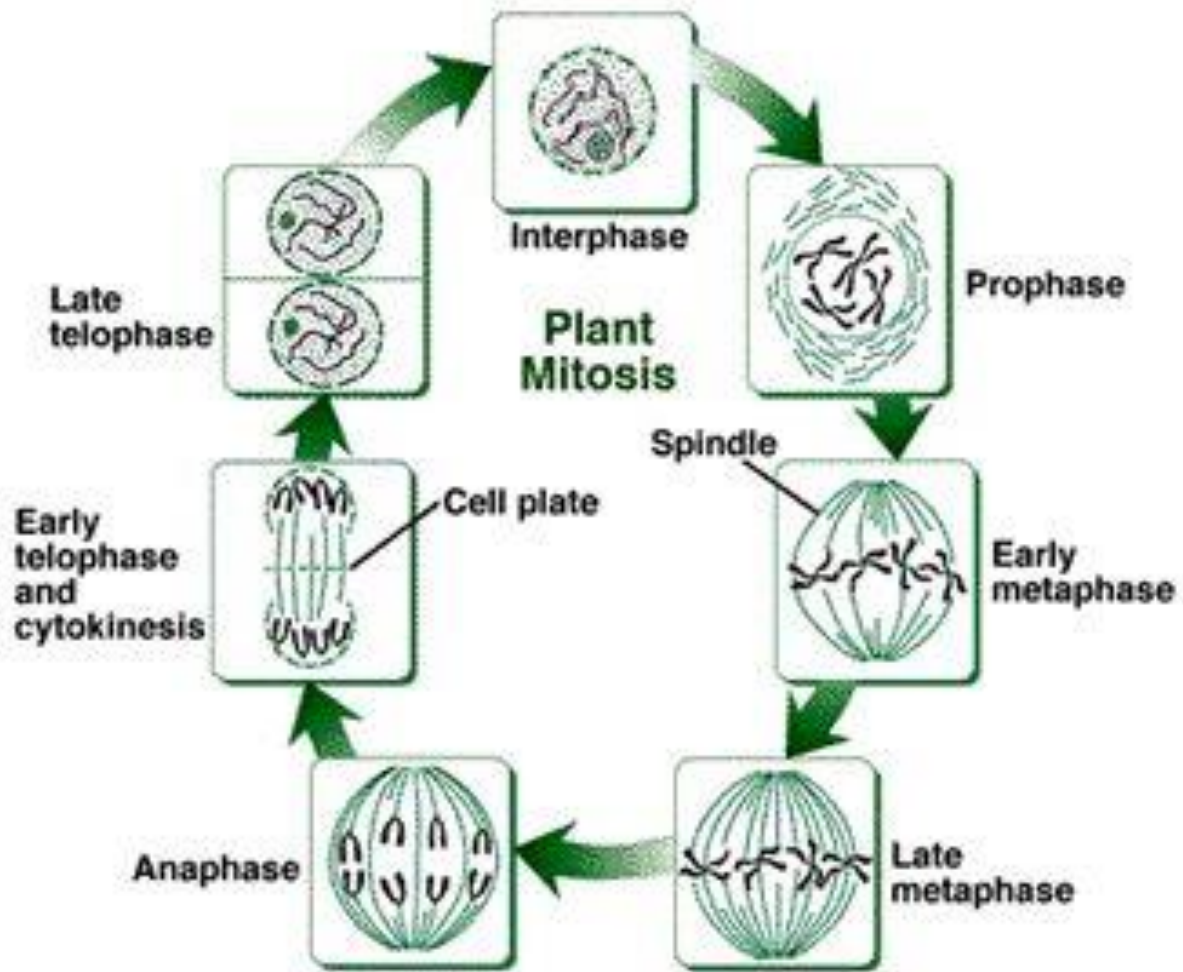
### Stages of Plant Cell Division

Drag the cursor over the labels to read the description for each stage



## : Mitosis in animal Cells





Mitosis in plant cell