

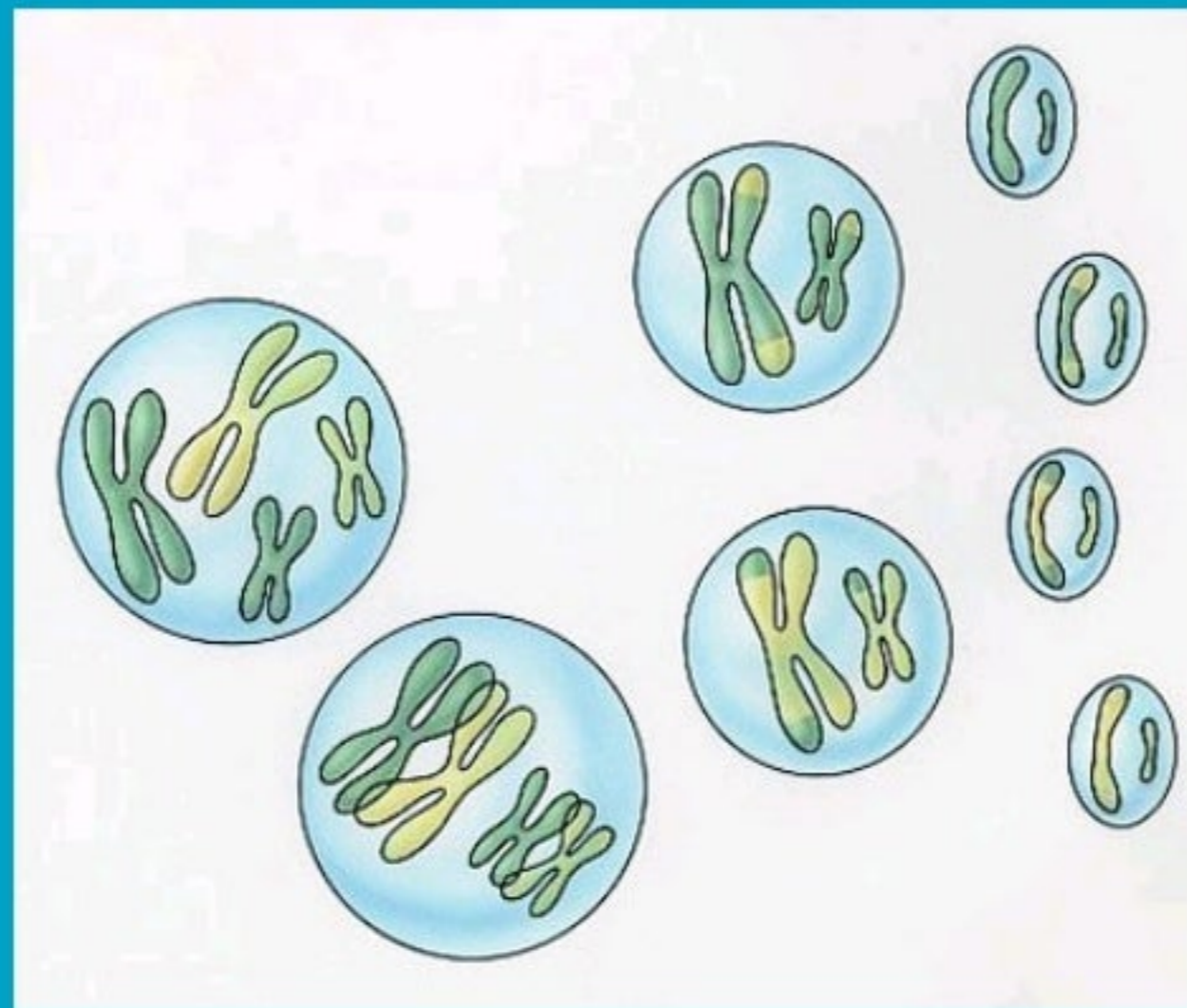
Cell Division

A fluorescence micrograph of a cell during division. The cell is roughly circular and contains a complex network of fibers. A central region is brightly colored in purple and blue, surrounded by a ring of red and orange. The outer regions are primarily green and yellow. The background is dark, making the colorful structures stand out.

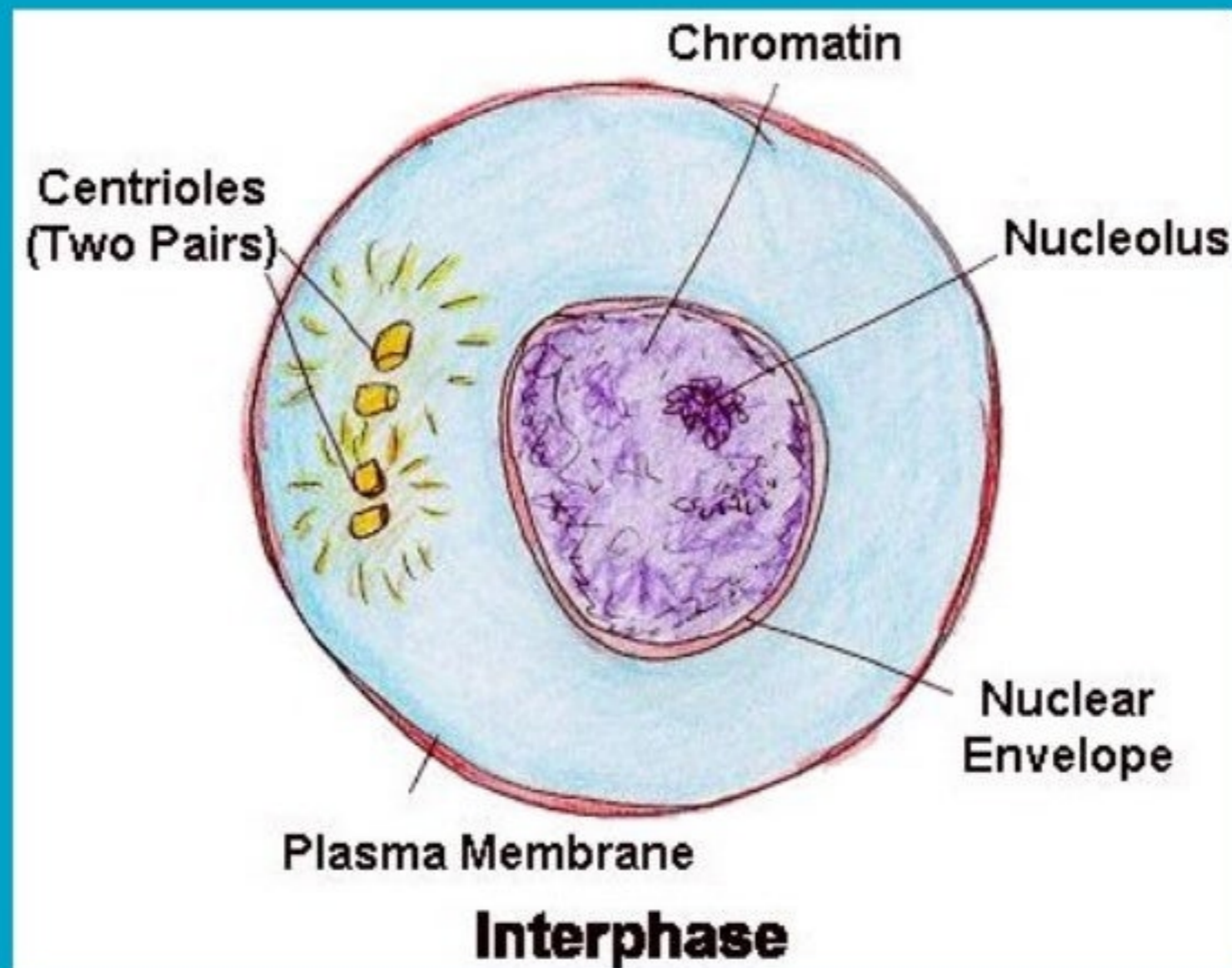
Mitosis & Meiosis

Quick Review:

The following slides are drawings of the stages of Mitosis. On your notes, please draw each phase and label it.



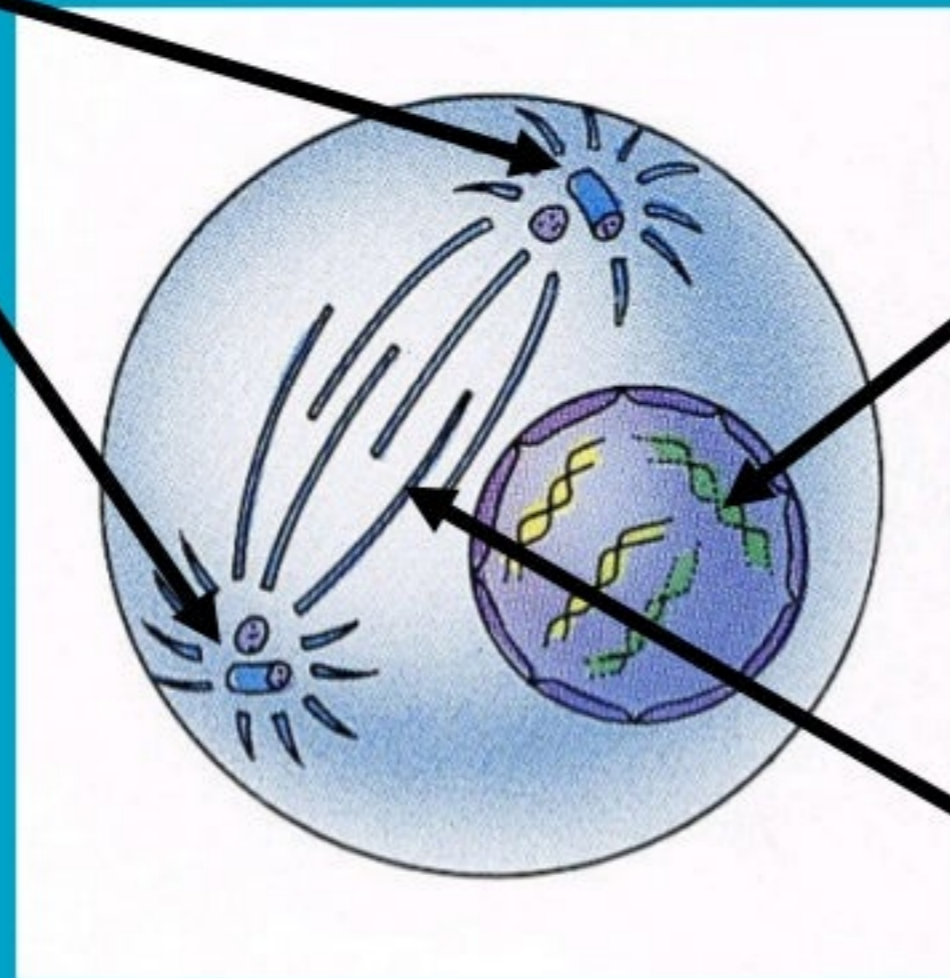
Interphase – The Cell spends the majority of its life here, growing and functioning. During the S Phase of the Cell Cycle, the DNA replicates, in anticipation of Mitosis



In Early Prophase of Mitosis the Chromosomes get small, centrioles move to the poles of the nucleus, and spindle fibers develop

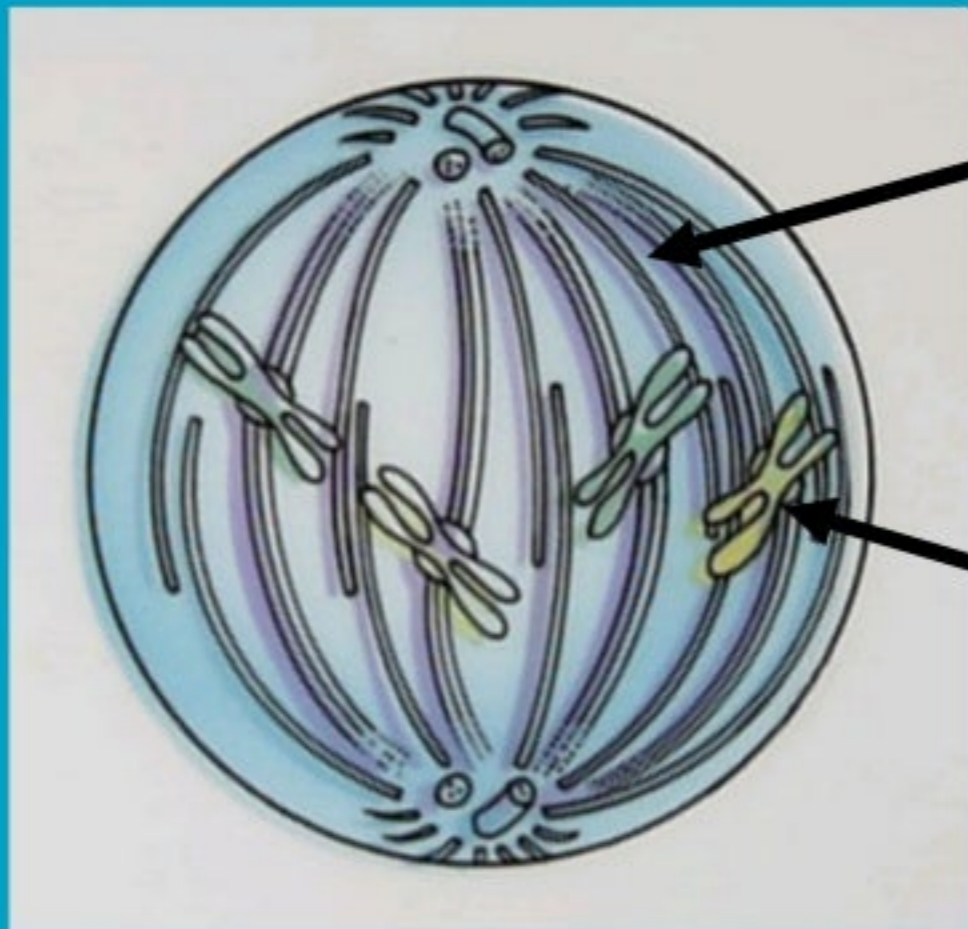
Pair of Centrioles

Chromosomes consisting of 2 Sister Chromatids



Spindle Fibers

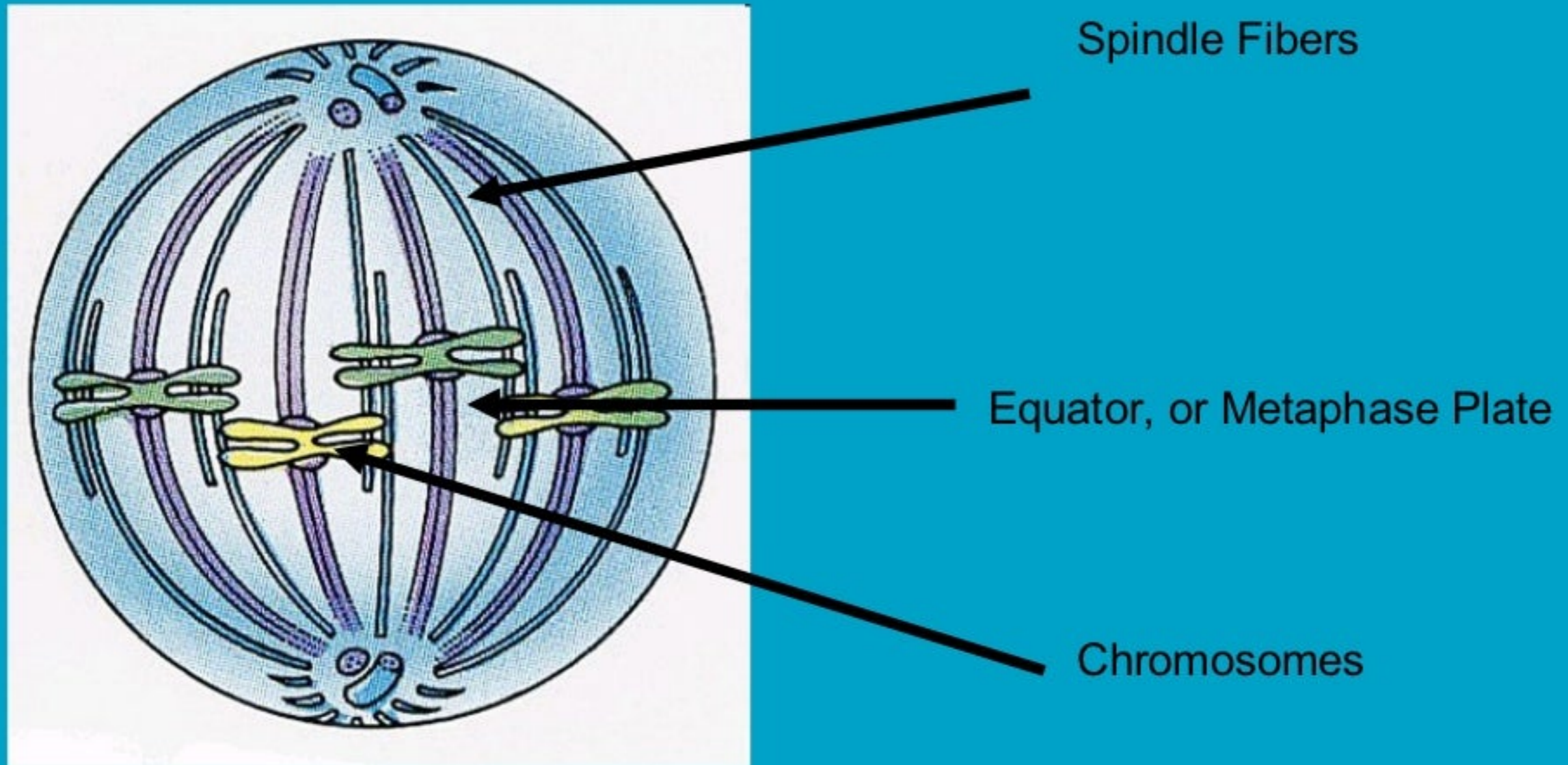
Late Prophase happens when the Nuclear Envelope disintegrates and spindle fibers begin to move Chromosomes toward the center of cell.



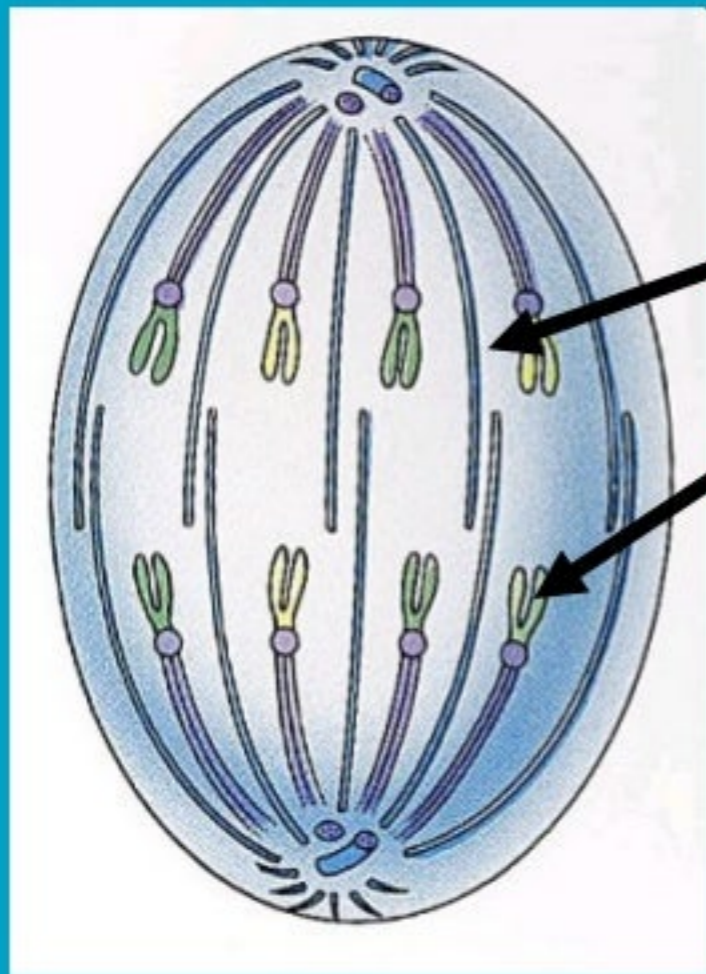
Spindle Fibers

Chromosomes

During Metaphase the Chromosomes line up across center of the cell, also called the equator, or Metaphase plate.

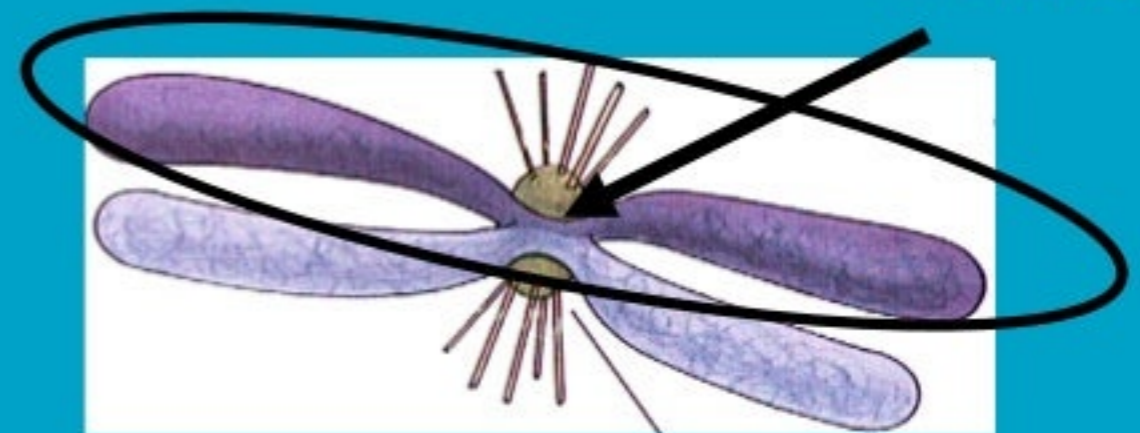


In Anaphase the Chromatids that make up each Chromosome move apart and travel to opposite ends of cellular spindle



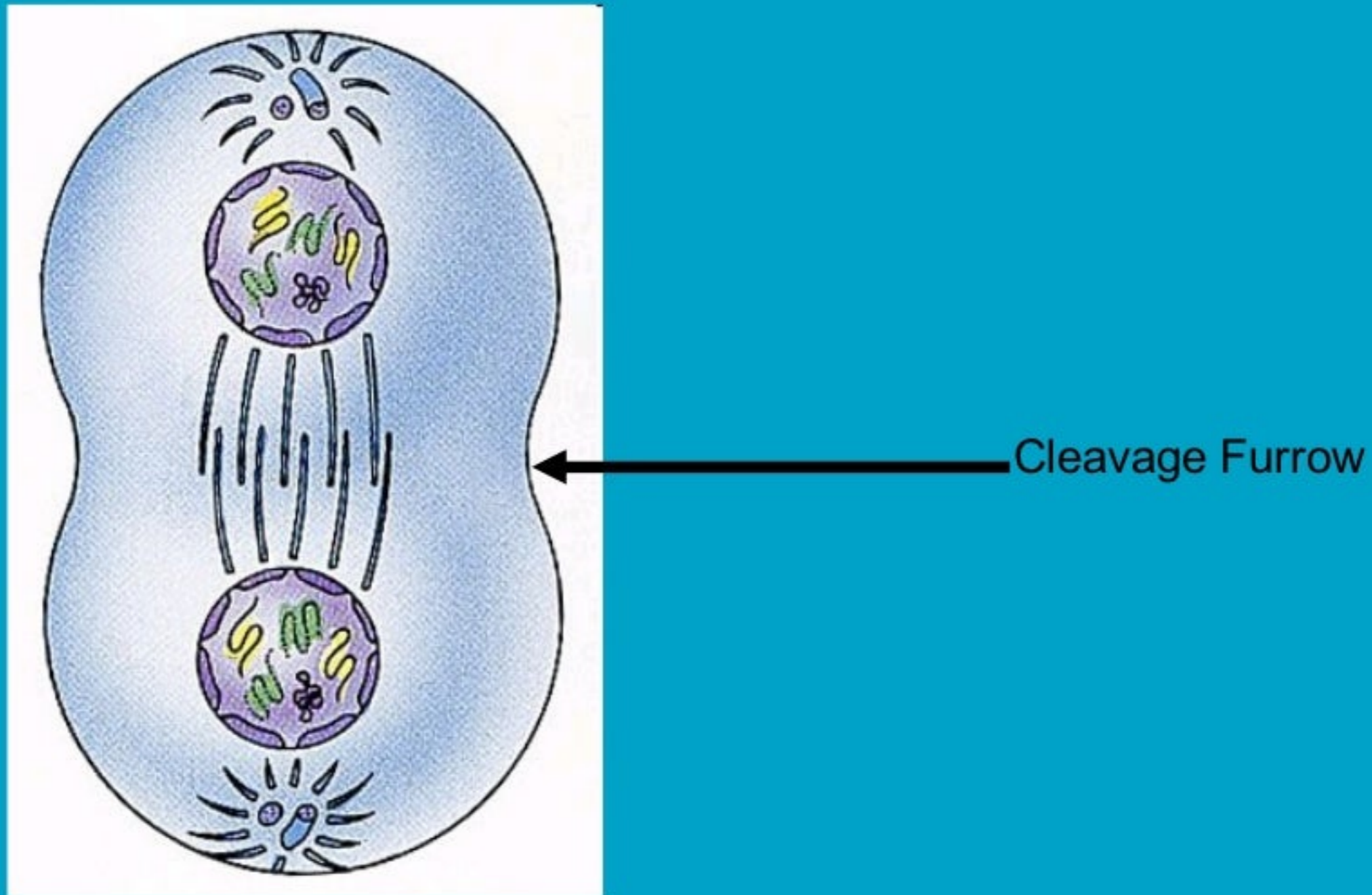
Daughter Chromosomes

Chromatid

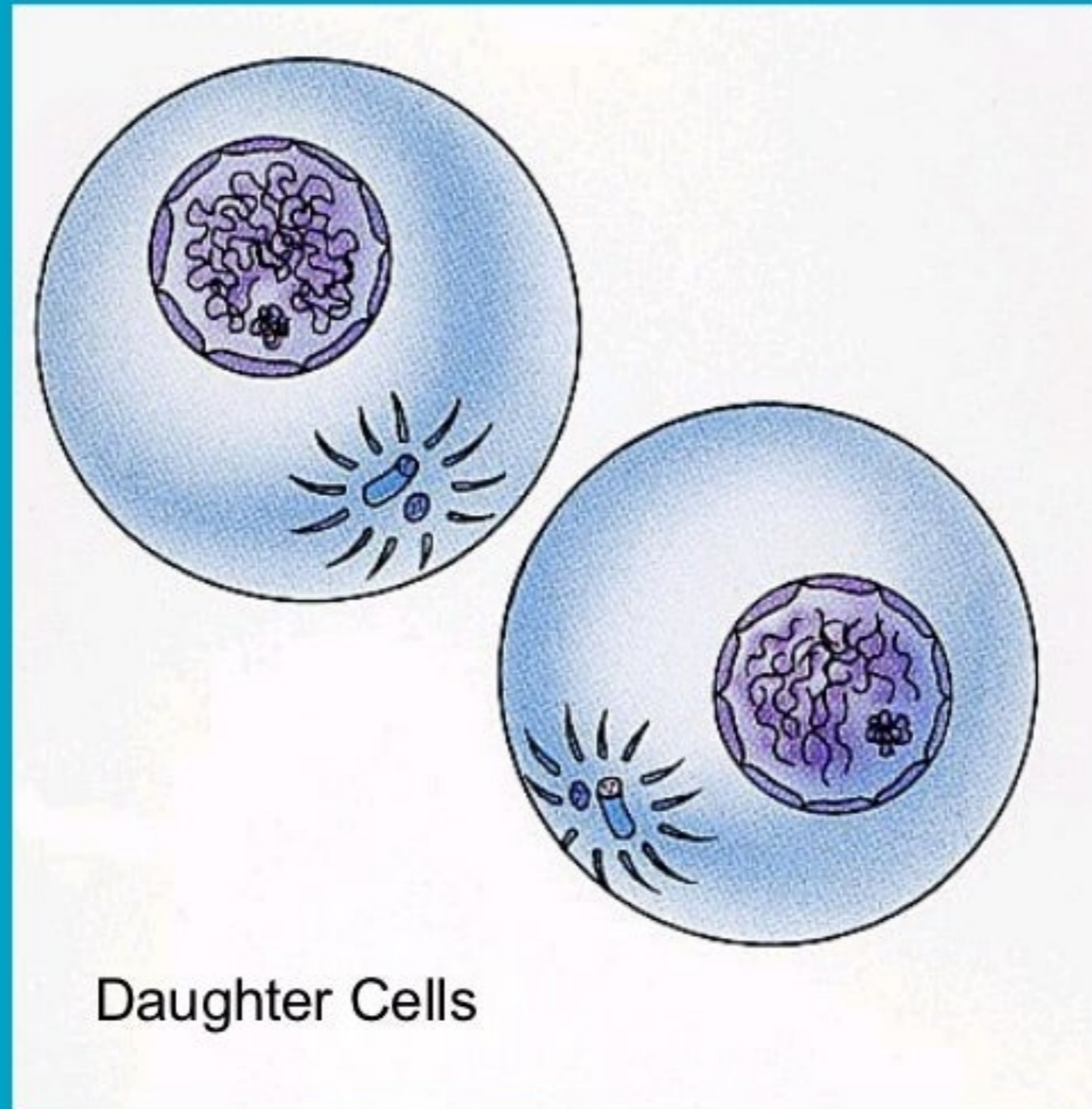


Chromosome

In Telophase an envelope surrounds each set of Chromatids to form new Nucleus and the Cytoplasm starts to divide

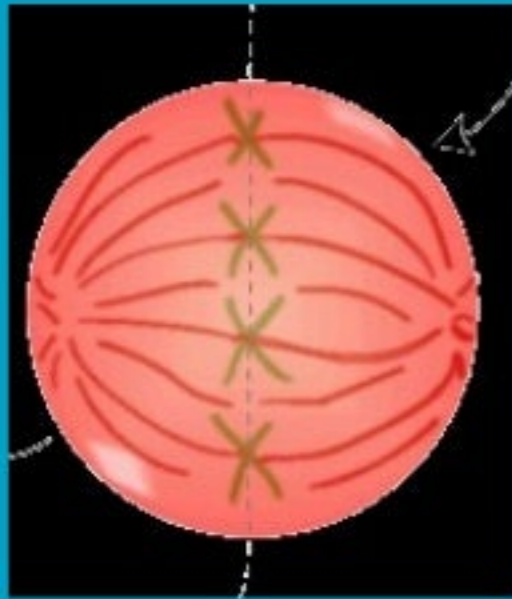


Cytokinesis takes place when the Cytoplasm divides and two cells with identical genetic material are formed

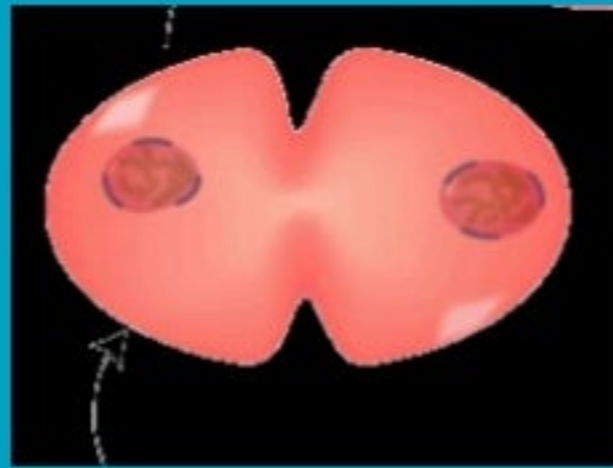


Daughter Cells

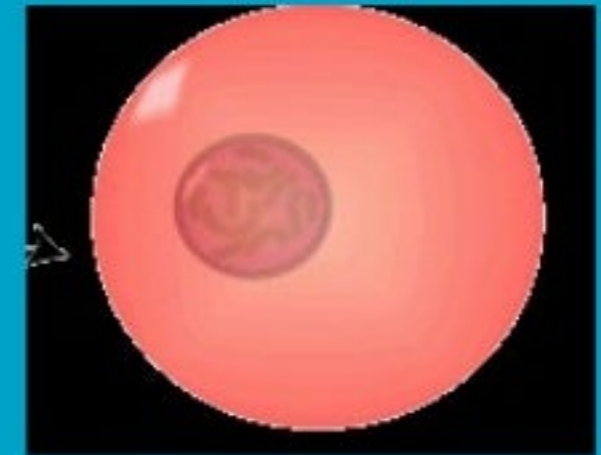
Quick Review – Place Cells in Mitosis Order



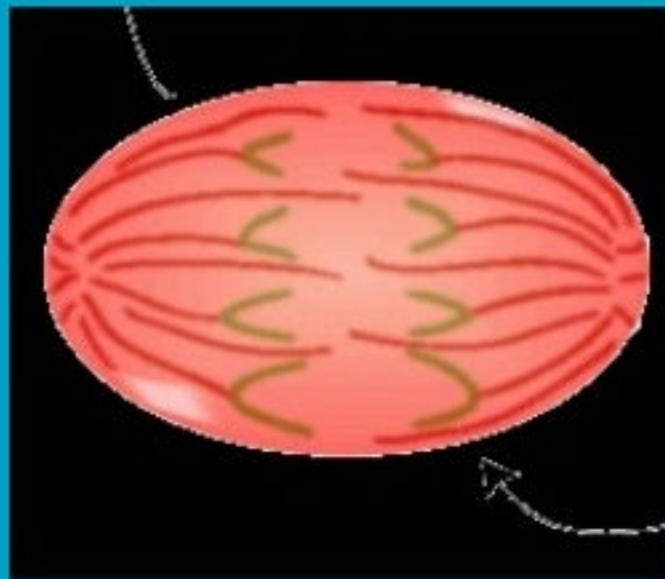
A



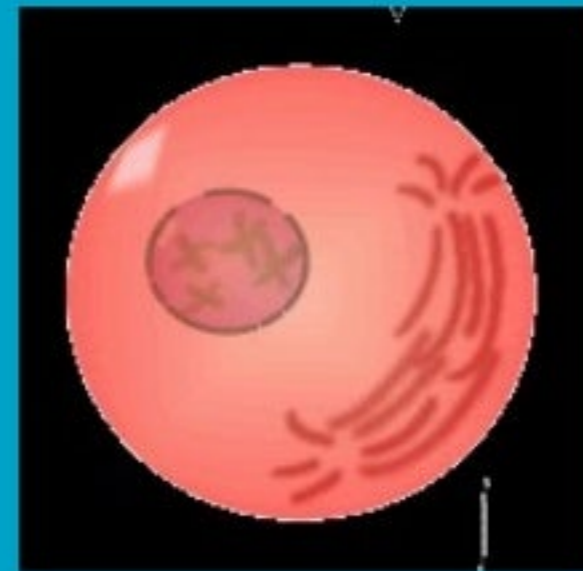
B



C



D



E



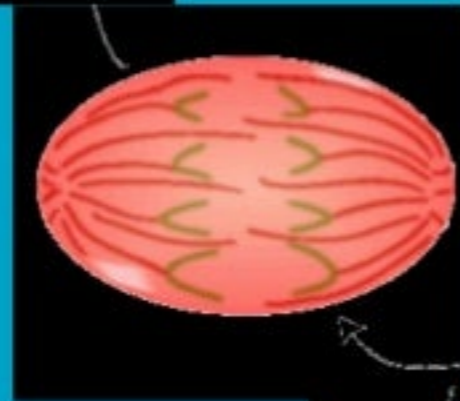
Interphase



Prophase



Metaphase



Anaphase



Telophase

Quick Review:
Identify What
happens in each
phase of Mitosis: