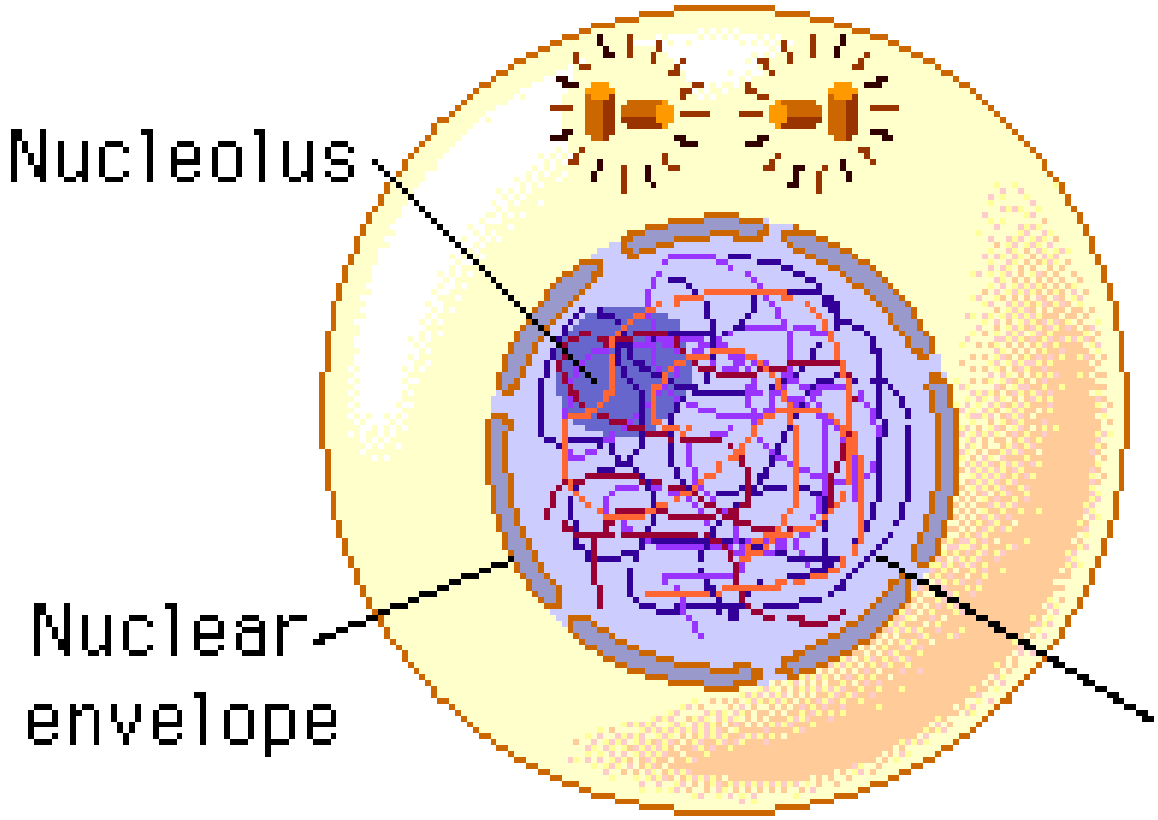
My Little Toesies

They look identical to each other…

Mitosis Phases

Cell division for identical cells

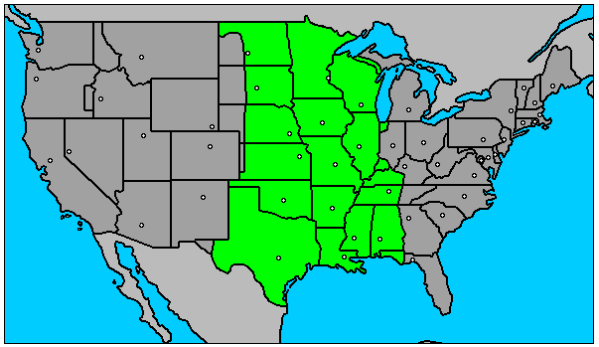
Interphase



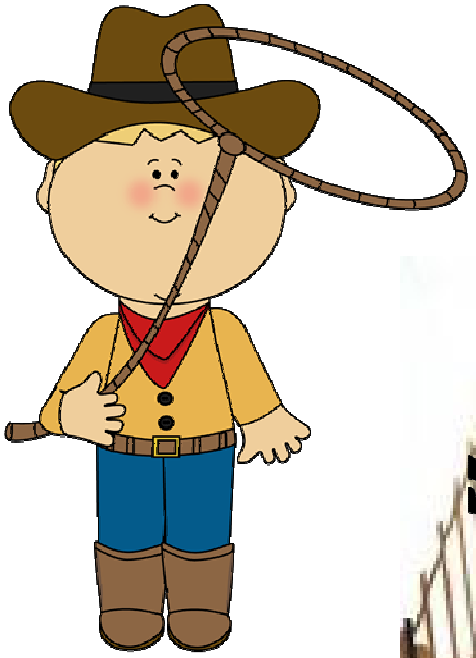
Interphase

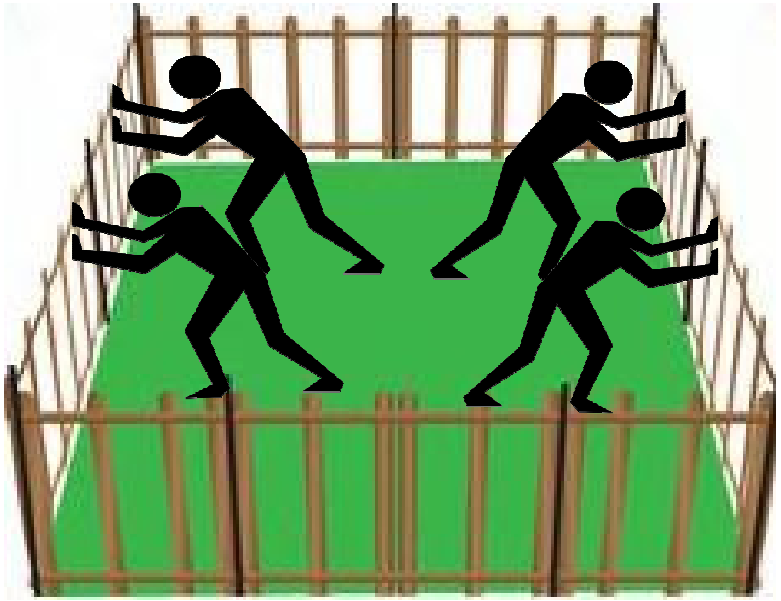
The nucleolus and the nuclear envelope are distinct and the chromosomes are in the form of threadlike chromatin.

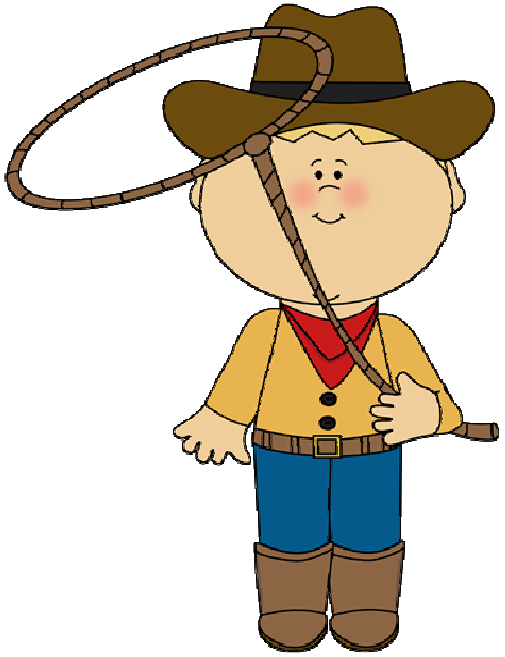
Professional

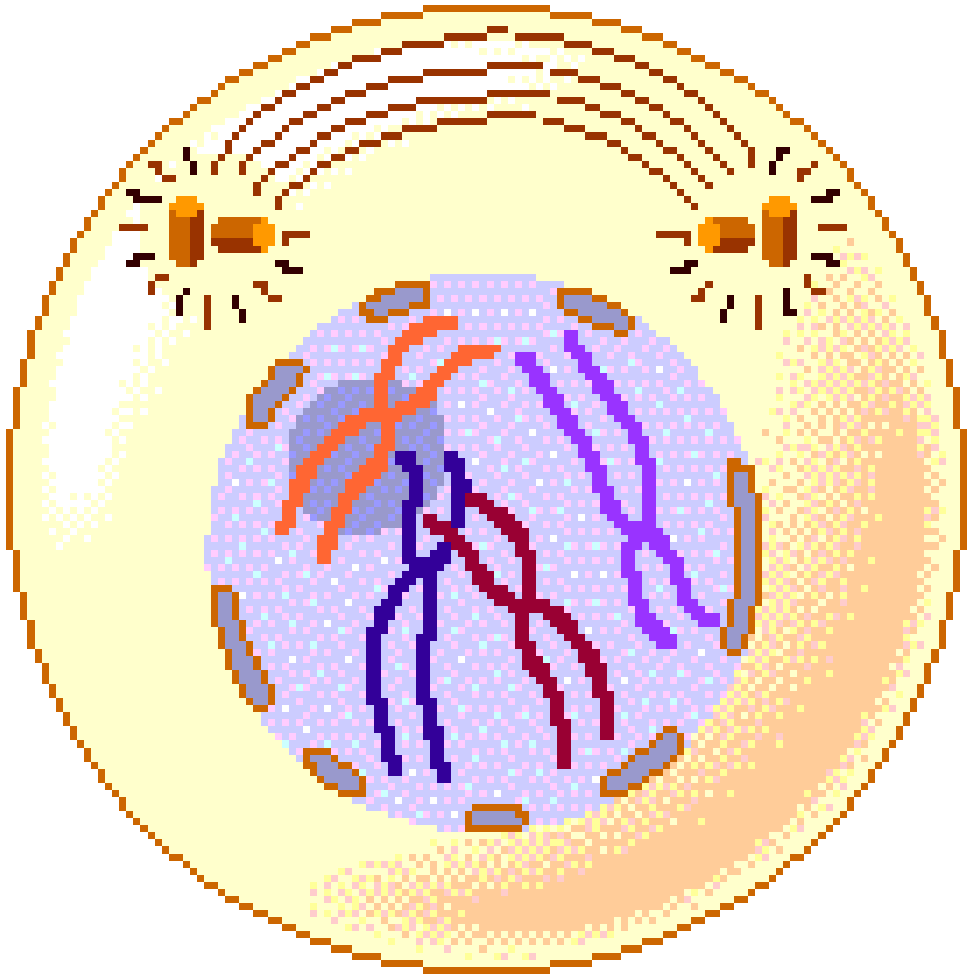


Prophase







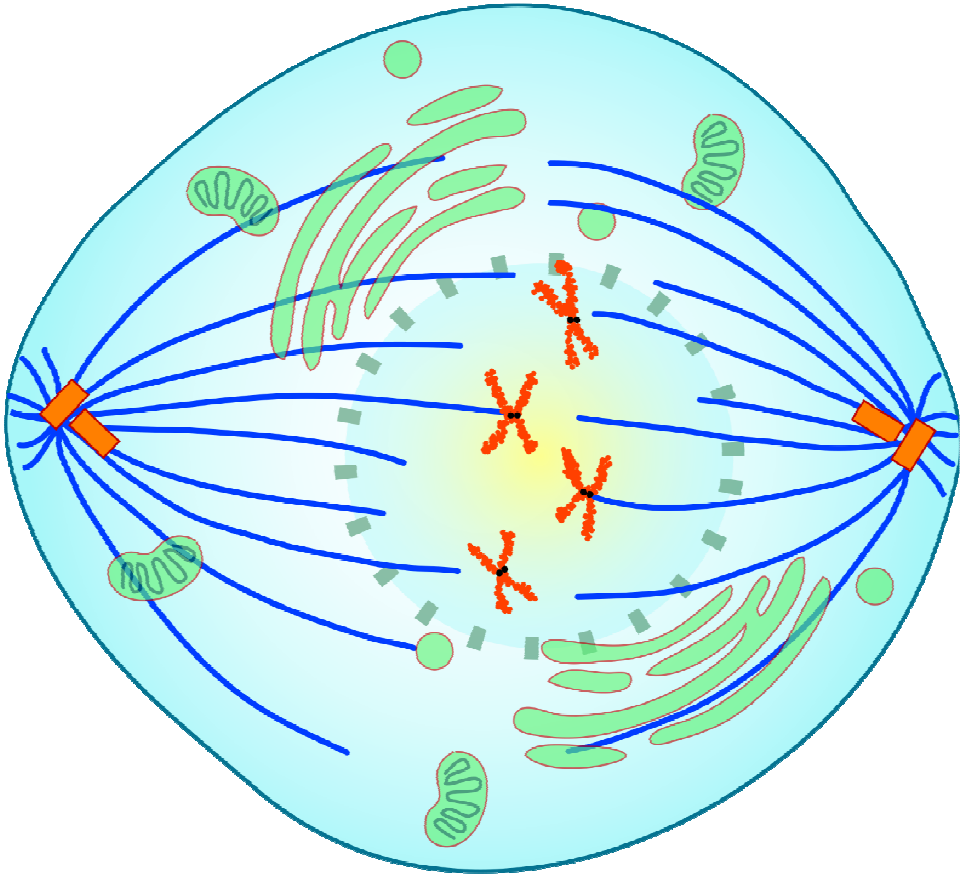


Prophase

The chromosomes appear condensed, and the nuclear envelope is not apparent.

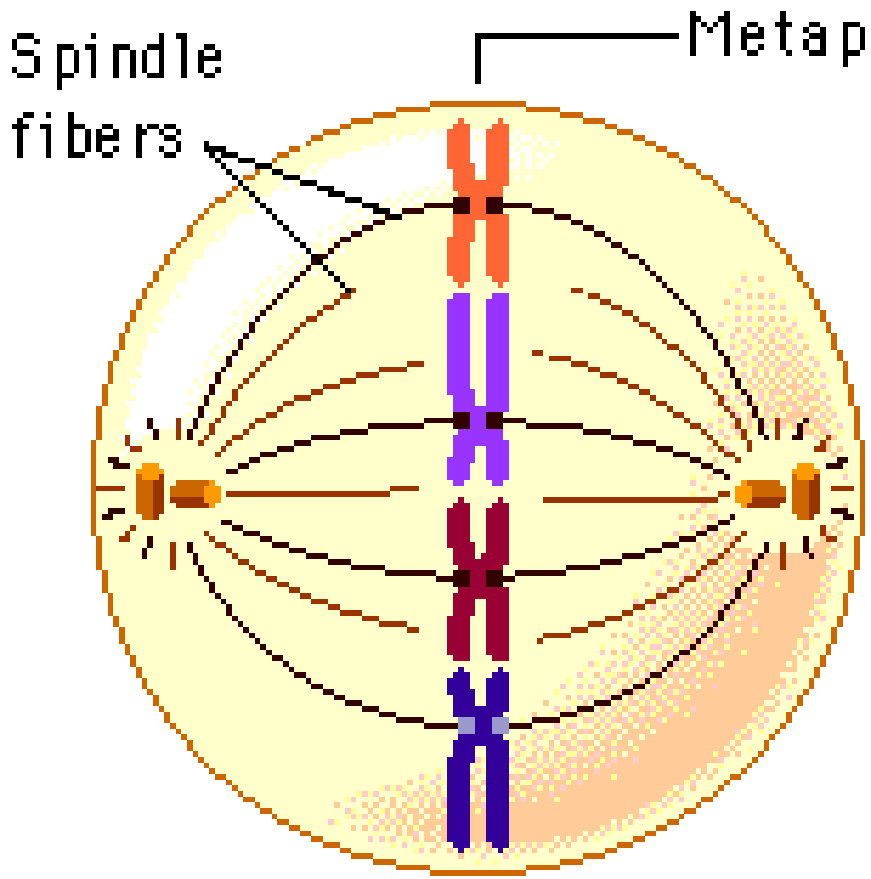
Pro Metamucil

Prometaphase



Met up

Metaphase

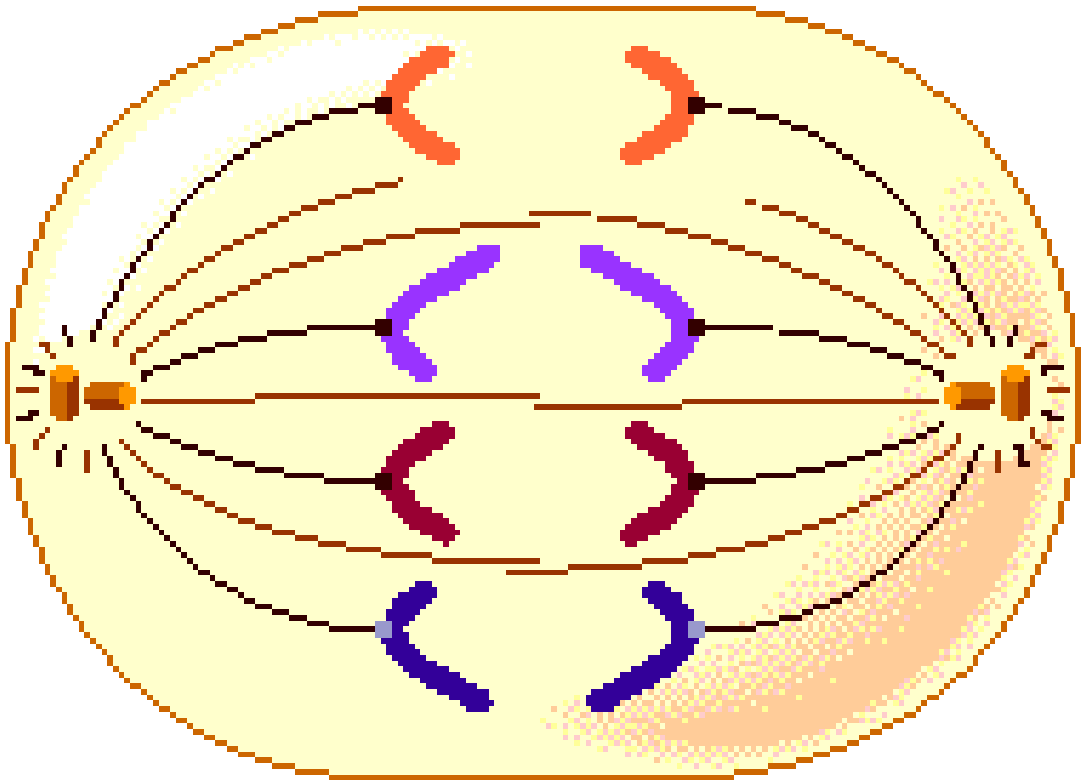


Metaphase

Thick, coiled chromosomes are lined up in the center of the cell on the metaphase plate. Spindle fibers are attached to the chromosomes.

Anna

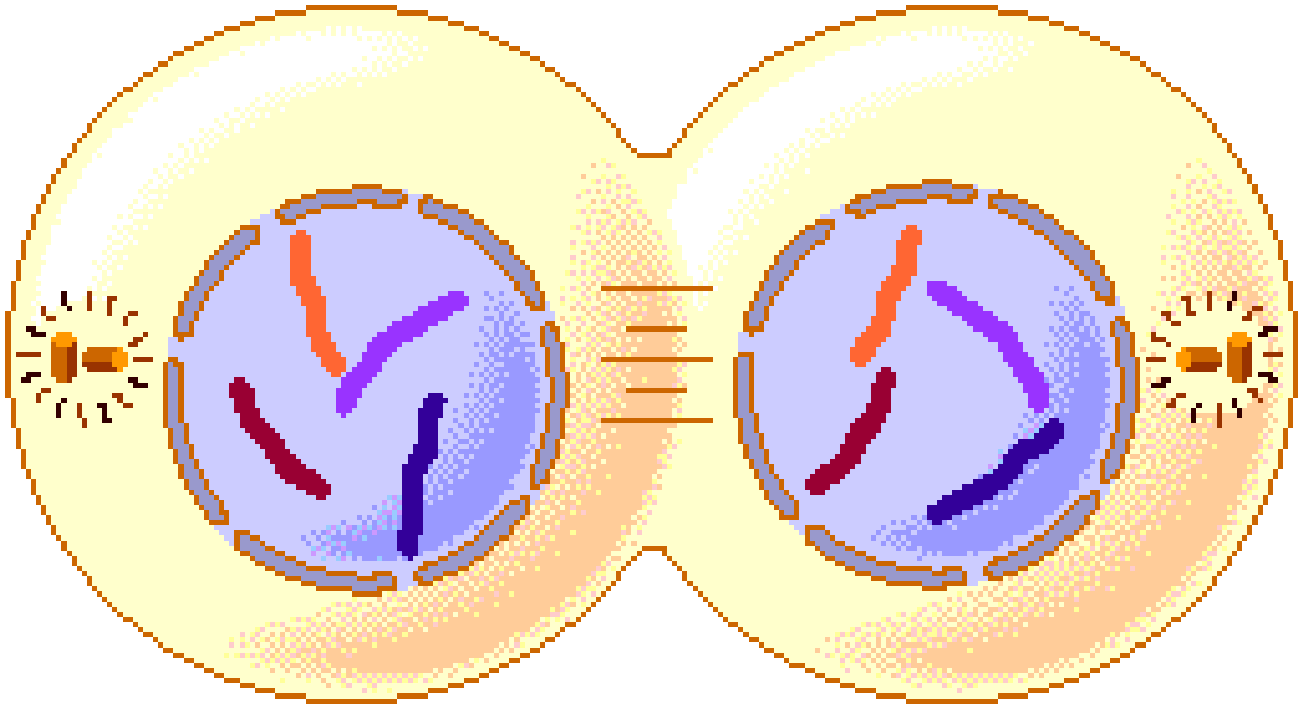
Anaphase



Anaphase
The chromosomes have separated and are moving toward the poles.

Telephone

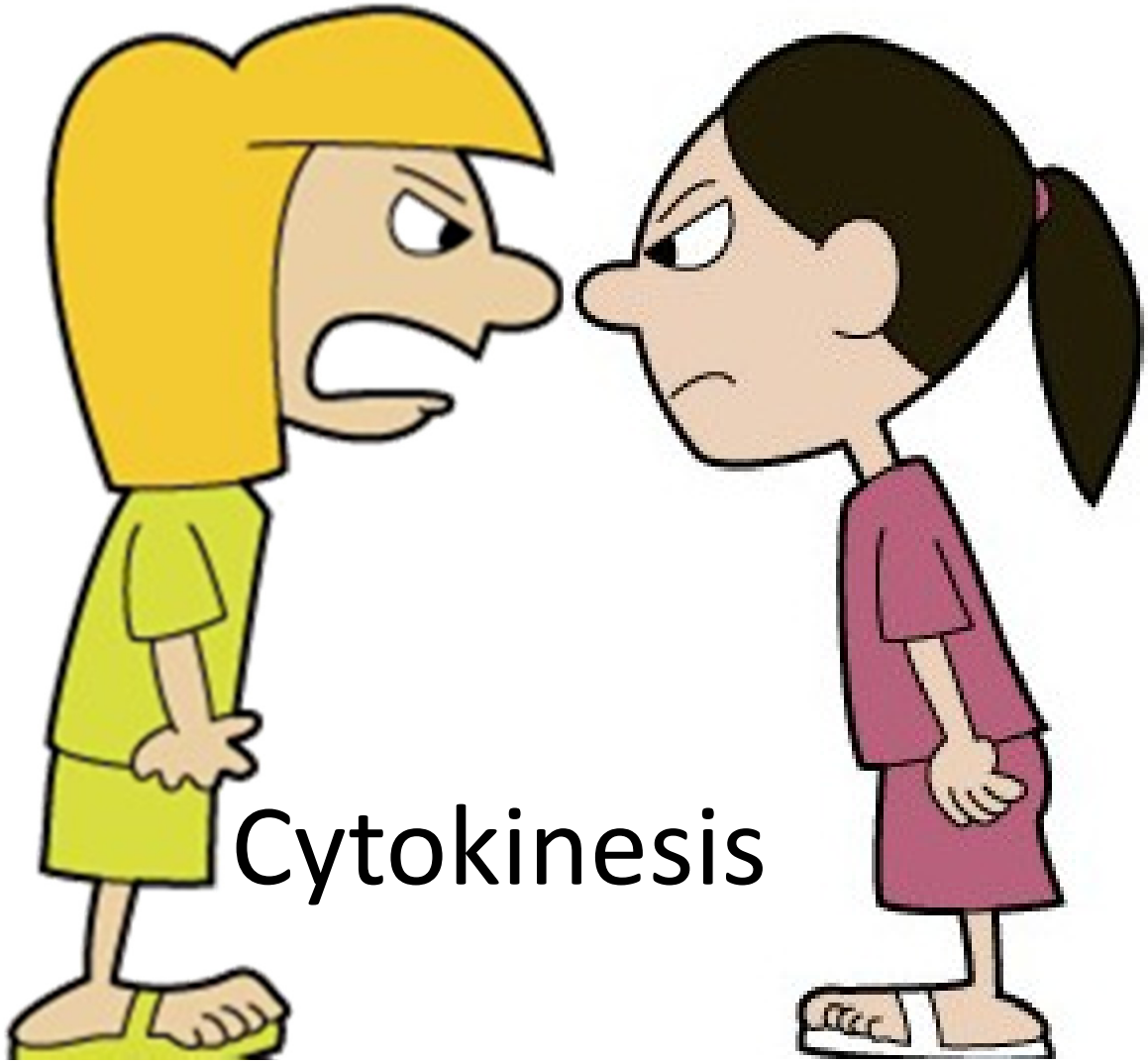
Telophase



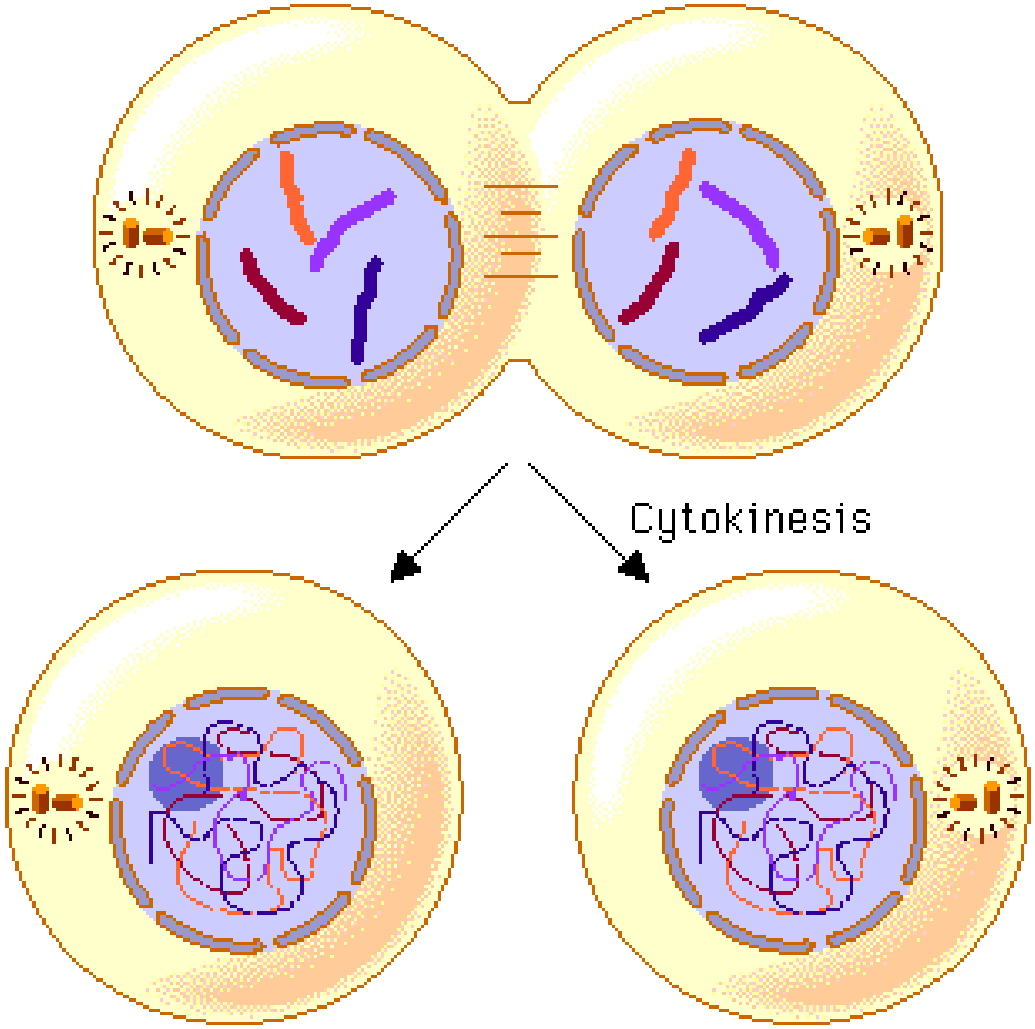
Telophase

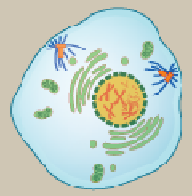
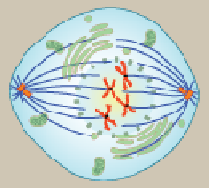
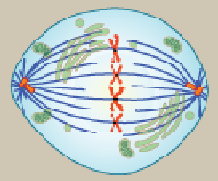
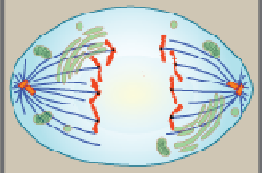
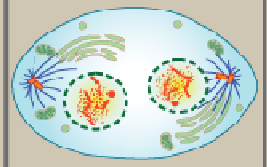
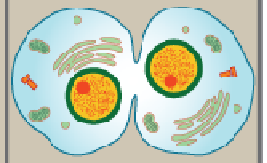
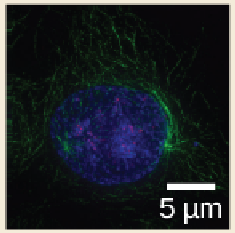
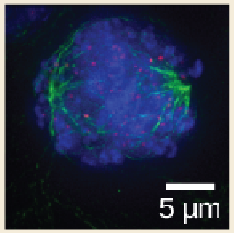
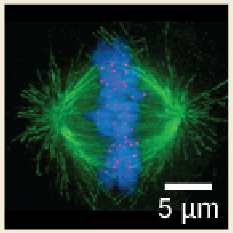
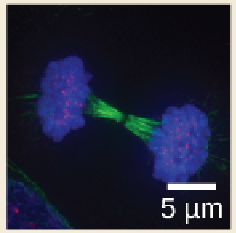
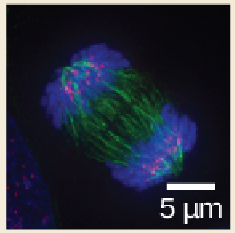
The chromosomes are at the poles, and are becoming more difuse. The nuclear envelope is reforming. The cytoplasm may be dividing.

Nieces



Cytokinesis


Cytokinesis

Prophase	Prometaphase	Metaphase	Anaphase	Telophase	Cytokinesis
					
• Chromosomes condense and become visible • Spindle fibers emerge from the centrosomes • Nuclear envelope breaks down • Nucleolus disappears	• Chromosomes continue to condense • Kinetochores appear at the centromeres • Mitotic spindle microtubules attach to kinetochores • Centrosomes move toward opposite poles	• Mitotic spindle is fully developed, centrosomes are at opposite poles of the cell • Chromosomes are lined up at the metaphase plate • Each sister chromatid is attached to a spindle fiber originating from opposite poles	• Cohesin proteins binding the sister chromatids together break down • Sister chromatids (now called chromosomes) are pulled toward opposite poles • Non-kinetochore spindle fibers lengthen, elongating the cell	• Chromosomes arrive at opposite poles and begin to decondense • Nuclear envelope material surrounds each set of chromosomes • The mitotic spindle breaks down	• Animal cells: a cleavage furrow separates the daughter cells • Plant cells: a cell plate separates the daughter cells
					

MITOSIS