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| Interphase | * Cytoplasm separates and two new cells are formed. * Different in plants (cell wall forms down the center) and animals (cell membrane pinches in). |  |
| Prophase | * Chromosome pairs line up at the equator (center of cell). * Spindle fibers attach to the chromosomes at the centromere. |  |
| Metaphase | * Mitosis begins during this phase. * Nucleolus and nuclear membrane disappear. * Centrioles appear and move to opposite ends of cell. * Spindle fibers begin to stretch across the cell. * Chromosome pairs or sister chromatids become visible (attached to one another by a centromere). |  |
| Anaphase | * Two new nuclei form. * Chromosomes change to chromatin (threads rather than rods). * Mitosis ends. |  |
| Telophase | * Chromosome pairs (sister chromatids) separate and move to opposite ends of the cell. |  |
| Cytokinesis | * Cell’s resting phase. Cell grows to mature size. * Cell spends 90% of its time in this phase. * Cell copies/doubles its chromosomes and prepares for cell division (mitosis). |  |