Interphase	Phase between two M (mitosis) phase, >95% of cell cycle G_1, S and G_2
G_1 phase	Cell is metabolically active and grows Organelles duplicate
S (synthesis) phase	DNA Replication Chromosome number remains same, DNA amount doubles Centriole duplicates Synthesis of histone proteins

G_2 phase	Protein synthesis for mitosis
M (Mitosis) phase	Equational division Karyokinesis- Prophase, metaphase, anaphase, telophase Cytokinesis
Prophase	Chromosome condense Centrosome move to opposite poles ER, Golgi bodies, nucleolus and nuclear envelope disappear

Metaphase	Sister chromatids visible, chromosomes are studied at this stage Spindle fibres attached to kinetochore present at centromeres Chromosomes get aligned at equator
Anaphase	Sister chromatids split and move to opposite poles
Telophase	Chromosomes lose their discrete identity and form clusters Nuclear envelop develops around each cluster forming daughter nuclei Nucleolus, ER, Golgi complex reappear

Cytokinesis	Mitochondria, plastids, etc. get distributed in daughter cells. In plants, wall formation starts in the middle as cell-plate. Furrow method in animal cells.
Syncytium	Multinucleate cell resulting from absence of cytokinesis after karyokinesis. E.g. Multinucleate, liquid endosperm in coconut
Meiosis	Meiosis I and meiosis II DNA replication only occurs once. Chromosome number is halved in daughter cells

Prophase I	Leptotene Zygotene Pachytene Diplotene Diakinesis
Zyogotene	Pairing of homologous chromosomes Synapsis and formation of synaptonemal complex Bivalent or tetrad chromosomes
Pachytene	Crossing over and recombination

Diplotene	Chiasmata Can last up to years in vertebrate oocytes.
Anaphase I	Separation of homologous chromosomes Sister chromatids remain attached
G_0 (quiescent stage)	Inactive stage after G_1, in cells that do not divide frequently, e.g. heart cells