



Cell Cycle and Mitosis

THE CELL CYCLE

The **cell cycle**, or **cell-division cycle**, is the series of events that take place in a **eukaryotic cell** between its formation and the moment it replicates itself. These events can be divided in **two** main parts: **interphase** (*in between divisions* phase grouping **G₁ phase**, **S phase**, **G₂ phase**), during which the cell is forming and carries on with its normal metabolic functions; the **mitotic phase** (M mitosis), during which the cell is replicating itself. Thus, cell-division cycle is an essential process by which a single-cell fertilized egg develops into a mature organism and the process by which hair, skin, blood cells, and some internal organs are formed.

1. What is meant by the cell cycle or cell division cycle?
2. In what type of cells --- prokaryotes or eukaryotes --- does the cell cycle occur?
3. Name the 2 main PHASES of the cell cycle.
4. _____ is in between the times when a cell is dividing.
5. What is occurring in a cell during interphase?
6. What is occurring during the mitosis phase?
7. A fertilized cell develops into a _____ organism during the cell cycle.
8. Name three things that form during the cycle.