

CONCEPT: INTRODUCTION TO THE CELL CYCLE

• Cell _____: a representation of the events that a cell performs from the moment it is *formed* to when it *divides*.

□ Cell cycle is broken down into _____ major phases:

① _____: a *non-dividing* phase for cell growth, DNA *replication* & production of organelles/enzymes.

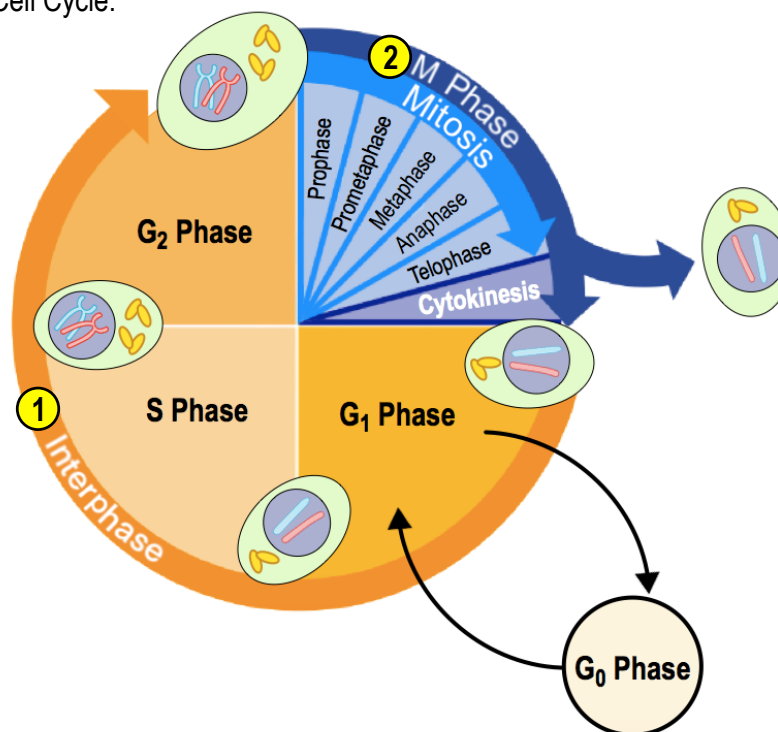
□ Includes 4 subphases: _____, _____, _____ & _____.

② _____ (Mitotic) Phase: a *dividing* phase that *separates* the genetic material while producing *multiple* cells.

□ M Phase = _____ + *Cytokinesis*.

□ Mitosis consists of _____ phases which we will discuss later.

EXAMPLE: Phases of the Cell Cycle.



PRACTICE: Before a cell divides, what must occur?

- a) Duplicating the cell's organelles.
- b) Replicating the cell's genome.
- c) Duplicating enzymes needed for cellular division.
- d) All of the above must occur before a cell can divide.

PRACTICE: When cells exit either semi-permanently or permanently from the cell cycle and develop a specific function, they are said to be in _____ phase.

- a) G₀.
- b) G₁.
- c) G₂.
- d) G₃.
- e) S.