

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.

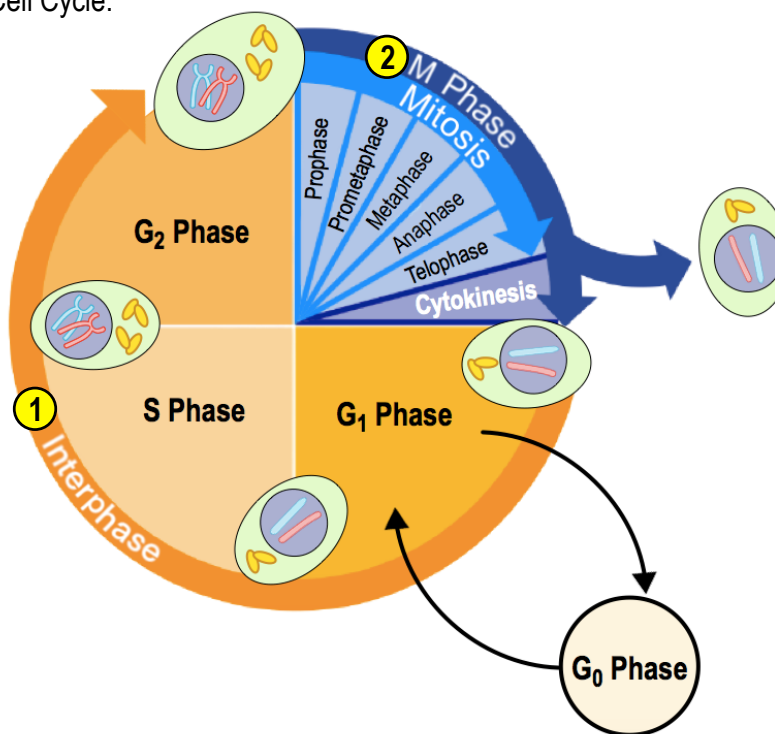
□ Includes 4 subphases: _____, _____, _____ & _____.

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?

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| a) Duplicating the cell's organelles. | c) Duplicating enzymes needed for cellular division. |
| b) Replicating the cell's genome. | 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.

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|---------------------|---------------------|---------------------|---------------------|-------|
| a) G ₀ . | b) G ₁ . | c) G ₂ . | d) G ₃ . | e) S. |
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