

# Chapter 12

## The Cell Cycle



# Overview: The Key Roles of Cell Division

- The ability of organisms to produce more of their own kind best distinguishes living things from nonliving matter
- The continuity of life is based on the reproduction of cells, or **cell division**

- In unicellular organisms, division of one cell reproduces the entire organism
- Multicellular organisms depend on cell division for
  - Development from a fertilized cell
  - Growth
  - Repair
- Cell division is an integral part of the **cell cycle**, the life of a cell from formation to its own division