

Biology 12: Chapter 3 – Review Worksheet Answer Key

A. Cell Theory:

1. Cell theory = living things are composed of cells and new cells arise only from preexisting cells.
2. Resolving power of a microscope is the capacity to distinguish between 2 adjacent pts and is dependent on the wavelength of the illumination. Electron microscopes have greater resolving power b/c electrons have shorter wavelengths than visible light.

B. Eukaryotic and Prokaryotic Cells

1. Eukaryotic cell = membrane-bound nucleus, and membranous organelles.

Natural Selection

Darwin's greatest contribution was developing a scientific hypothesis to explain how evolution occurs.

He came up with several terms:

Fitness- the ability of an individual to survive and reproduce in its specific environment.

Adaptation- any inherited characteristic that increases an organism's chance of survival.

Natural selection- survival of the fittest.

Evolution by

- Darwin's theory of evolution explains how species change over time.
 - He came up with several terms:
1. Fitness- the ability of an individual to survive and reproduce in its specific environment.
 2. Adaptation- any inherited characteristic that increases an organism's chance of survival.
 3. Natural selection- survival of the fittest.