2. Compare the basic structures and functions of different types of cells (LS-M-A1)

Lecture topic: Cells
4. Compare functions of plant and animal cell structures (i.e., organelles) (LS-M-A2)

Lecture topic: Cells
3. Illustrate and demonstrate osmosis and diffusion in cells (LS- M- A1)

Lecture topic: Membranes
7. Construct a word equation that illustrates the processes of photosynthesis and respiration (LS-M-A4)

Lecture topic: Metabolism II
8. Distinguish between aerobic respiration and anaerobic respiration (LS-M-A4)

Lecture topic: Metabolism I
6. Compare the life cycles of a variety of organisms, including non-flowering and flowering plants, reptiles, birds, amphibians, and mammals (LS-M-A3)

Lecture topic: Life Cycles
5. Compare complete and incomplete metamorphosis in insects (e.g., butterflies, mealworms, grasshoppers) (LS-M-A3)

Lecture topic: Insect Life Stages
11. Describe the growth and development of humans from infancy to old age (LS-M-A6)

Lecture topic: Human Life Stages
9. Relate structural features of organs to their functions in major systems (LS-M-A5)

Lecture topic: Vertebrate Bodies and Systems
10. Describe the way major organ systems in the human body interact to sustain life (LSM-A5)

Lecture topic: Circulatory System
30. Differentiate between structural and behavioral adaptations in a variety of organisms (LS-M-D1)

Lecture topic: Adaptations
31. Describe and evaluate the impact of introducing nonnative species into an ecosystem (LS-M-D1)

Lecture topic: Nonnative Species
32. Describe changes that can occur in various ecosystems and relate the changes to the ability of an organism to survive (LS-M-D2)

Lecture topics: Extinctions, The Niche
33. Illustrate how variations in individual organisms within a population determine the success of the population (LS-M-D2)

Lecture topics: Genetic Variation, The Niche
34. Explain how environmental factors impact survival of a population (LS-M-D2)

Lecture topic: The Niche