Title: Introduction to Cells

Summary:

This class covered the importance of cells in the study of life. Cells are the basic unit of life and form the foundation of biological and environmental exchanges of material and energy. Cell growth and reproduction form the basis of development, genetics and variation. The hierarchical structure of life is comprised of cells, tissues, organs, systems, individuals, populations, communities, and ecosystems. Plants and animals have different cellular structures and differences between prokaryotic and eukaryotic cells were discussed.

Improvements to the class notes:

Introduction to Cells

- Life's processes are dependent on cells
- There is an exchange of materials and energy between the environment and cells based on cellular processes
- Cellular growth and reproduction influence development, genetics and variations
- There is a hierarchical structure in the study of life: cells, tissues, organs, systems, individuals, populations, communities, and ecosystems
- Differences between cellular structures of plants and animals and prokaryotic and eukaryotic cells were discussed

Observing Cells

- Using a microscope, observe cells in varying magnifications
- Differences between organelles found in prokaryotic and eukaryotic cells were also discussed.

Organs and Systems

- The eight major systems within the study of life were introduced: movement, respiration, reproduction, digestion, circulation, excretion, nervous, endocrine, and immune systems
- Plants have various organs and systems including roots, stems, leaves and reproductive structures, such as flowers, fruits, and seeds

Conclusion: In this class, students were introduced to the fundamental importance of cells in the study of life and covered the hierarchical structure of life from cells to ecosystems. In addition, differences and similarities between prokaryotic and eukaryotic cells were discussed and differences in organs and systems for plants and animals were introduced.