

Guided Reading Questions 1A:

Sections: 4.1, 4.3, 4.4, 4.6 - 4.11

- What is a cell and why are cells important to the study of Biology?
- What does the cell theory state? Consider #3 of the Cell Theory about evolution. In your own words, explain what this principle means.
- What is the ideal cell size in terms of surface area and volume? Attempt to explain why this is the case.
- Using cellular characteristics, organelles, or structures, compare and contrast prokaryotic vs. eukaryotic cells.
- What is an organelle? How does this differ from an organ?
- Provide at least two examples of living things which are composed of prokaryotic cells.
- Provide at least two examples of living things which are composed of eukaryotic cells.
- Provide the general functions for the following cellular organelles: the nucleus, flagella/cilia, plasma membrane, cell wall, endoplasmic reticulum, golgi complex, lysosomes, mitochondria, chloroplast, ribosomes, and nucleolus.
- Using cellular characteristics, organelles, or structures, compare and contrast the following eukaryotic cells: plant, animal, and protist. What is the same and what is different about these different eukaryotic cells?
- What does it mean if someone were to say that a cell's structure complements its function? Explain using your own words. You might have to search for the answer to this one in other parts of the book or using other resources!