CELLS

Enduring Understandings

- All living things are composed of cells.
- At the broadest level, there are two different types of cells in the living world.
- Plant and animal cells have many similar structures but also important differences that relate to their different functions.
- A microscope is a critical tool to identify cell structures.

Essential Questions

- How do cells divide up the functions required of that cell?
- What is similar and different about prokaryotic and eukaryotic cells?
- What is similar and different about plant and animal cells?
- How can you quantify the size of structures viewed with a microscope.

Targets

- **Vocabulary:** Prokaryote, eukaryote, nucleus, nuclear membrane, chromatin, nucleolus, plasma membrane, cell wall, cytoplasm, endoplasmic reticulum, ribosome, Golgi apparatus, lysosome, vacuole, mitochondria, chloroplast, chlorophyll, cytoskeleton, microfilaments, microtubules, cilia, flagella, low power magnification, high power magnification, scanning objective, and field of view.
- Be able to describe, compare and contrast prokaryotic and eukaryotic cells.
- Be able to describe, compare and contrast plant and animal cells.
- Be able to focus and observe objects under low and high power magnification with a light microscope.
- There are two major divisions of cells, one more complex than the other.