Science 8 Cells, Tissues, Organs and Systems Unit

Big Idea: What are you made of?

Outcome:

CS8.2 Demonstrate proficiency in the use of a compound light microscope to observe

plant and animal cells.

Understandings:

A light microscope had many parts that function to see cells.

We can see plant and animal cell structures with a microscope.

Working safely and carefully protects us, our peers and the materials we are working with.

There are specific processes we can apply to microscope use to protect the equipment, ourselves and our samples and to maximize what we can learn.

Essential questions:

1. What are the parts (and functions) of a light microscope?
2. How do we prepare slides of plant and animal cells? (wet mount and stain)
3. How do we calculate the magnification of a microscope?
4. What plant and animal structures can be seen under a microscope?
5. How do we know about things we can’t see?
6. Why should I be careful?

Students need to know: (essential questions they are related to are in brackets)

- The parts (and functions) of a light microscope. (1)

- How to prepare slides of plant and animal cells. (2) (wet mount and stain)

- How to calculate the magnification of a microscope. (3)

-Vocabulary – compound, sample, mount, stain, magnification

And be able to: (essential questions they are related to are in brackets)

- Identify parts of a microscope and describe their functions. (1)

- Prepare plant and animal slides. (2)

- Calculate the magnification of a microscope. (3)

-Observe differences in structures of plant and animal cells. (4)

-Draw labelled diagrams of what is observed.

-Work safely and carefully.