Genetics Applications – Grade 10
Medical Professions Academy

Below is a table of the priority standards.

Priority Standards	Description
1.1	Explore the basic structure and function of key bio-molecules
1.2	Investigate the process and machinery of DNA replication, RNA transcription, and protein translation
1.3	Understand the physical structure of chromosomes and how this structure affects gene expression
1.4	Explore different types of mutations and how those mutations help scientists understand genetics
1.5	Explore basic statistics formulae and their applications to numerical data. Understand how numerical analysis is used in science. life cycle and husbandry. Explore how model organisms are used to study genetics.
1.6	Learn the basics of *Drosophila melanogaster* life cycle and husbandry. Explore how model organisms are used to study genetics
2.1	Evaluate different inheritance patterns and use these patterns to predict population trends.
2.2	Understand how infectious diseases influence the world.
2.3	Understand the basic structure and function of microbes and viruses.
2.4	Understand the human immune response to pathogens.
2.5	Understand the underlying biology of cancer