Mohawk Local Schools Grade 6 SCIENCE

Quarter: 1 Curriculum Guide

Guiding Principles of the Scientific Inquiry/Learning Cycle:

Evaluate….Engage…Explore…Explain…Extend…Evaluate

Identify ask valid and testable questions
Research books, other resources to gather known information
Plan and Investigate
Use appropriate mathematics, technology tools to gather, interpret data.
Organize, evaluate, interpret observations, measurements, other data
Use evidence, scientific knowledge to develop explanations
Communicate results with graphs charts, tables

Critical Areas of Focus Being Addressed:

- Rocks, Minerals and Soil
- Matter and Motion
- Cellular to Multicellular
- Scientific Inquiry and Application

Content Statements Addressed and Whether they are Knowledge, Reasoning, Performance Skill, or Product: (DOK1) (DOK2) (DOK3) (DOK4)	Underpinning Targets Corresponding with Standards and Whether they are Knowledge, Reasoning, Performance Skill, or Product: "I can…..", "Students Will Be Able To……."
Scientific Inquiry and Application (DOK 2)	The students can use microscopes to observe cells, tissues, and organs from different organisms. (DOK 1)

	The students can inquire and show mathematical relationships between cell size and a cell's ability to transport necessary materials into its interior. (DOK 2) The students can investigate the commonality of life for plants and animals. (DOK 2) The students can use models and illustrations to observe cells, tissues, and organs from different organisms. (DOK 2) The students can use microscopes to observe cells, tissues, and organs from different organisms. (DOK 1) Students can observe cells dividing by using microscopes, micrographs, models and illustrations. (DOK 1)
Cells are the fundamental unit of life. All cells come from pre-existing life. (DOK 2)	The students can identify single-celled organisms. (DOK 2) The students can identify multicellular organisms. (DOK 2) The students can compare cells, types of tissues, organs, and organ systems between organisms. (DOK 2)
Cells carry on specific functions that sustain life. (DOK 2)	The students can distinguish between the different tissues and organs in plants and animals. (DOK 2) The students can explain how cells reproduce for the continuation of every species. (DOK 2) The students can identify the binary fission process for producing a new single cell organism. (DOK 2)

	The students can explain how cells multiply for growth and repair in multicellular organisms. (DOK 2) The students can describe how chromosomes are the structures in cells that contain the genetic material. (DOK 2) The students can identify how cells take in nutrients and energy to perform work. (DOK 1) The students can recognize specialized parts within cells for transporting materials, energy capture and release, protein building, water disposal, information feedback and movement. (DOK 1) The students can compare and contrast muscles and organs within multicellular organisms. (DOK 2) The students can classify organisms based on body plans, symmetry, and internal structures. (DOK 2)
Living systems at all levels of organization demonstrate the complementary nature of structure and function.(DOK 2)	The students can explain how a membrane works in cells. (DOK 2) The students can explain the role of tissues that carry out life functions for organisms. (DOK 2) The students can explain the role of organs that carry out life functions for organisms. (DOK 2)

	The students can explain the role of organ systems that carry out life functions for organisms.