



MOHAWK

Local School District

Preparing today's students for tomorrow's challenges

Mohawk Local Schools 8th Grade - SCIENCE

Quarter 2 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:

- Physical Earth
- Science Inquiry and Applications

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....."

The composition and properties of Earth's interior are identified by the behavior of seismic waves.
 (DOK 2)

- The students can construct a model of how a planet's interior became organized into layers from cosmic debris. **R**
- The students can explain the effect of gravity on newly forming planets. **R**

	<ul style="list-style-type: none"> • The students can explain that as planets form, the materials which are most dense move to the core, and materials become part of the planet in decreasing degrees of density. R • The students can compare and contrast the speed and movement of different seismic waves. R • The students can evaluate seismic data and relate it to how scientists have determined the layers of Earth's interior. R
<p>Earth's crust consists of major and minor tectonic plates that move relative to each other. (DOK 3)</p>	<ul style="list-style-type: none"> • The students can describe various historical theories and data evidence that have led to the present day Plate Tectonic Theory. R • The students can describe Wegener's Theory of Continental Drift. K • The students can model and explain the process of sea-floor spreading. R • The students can model and explain how convection currents in the mantle cause the movement of tectonic plates. PS • The students can describe the movement and interaction of the 3 primary types of plate boundaries (convergent, divergent, transform). K • The students can use a boundary map to explain various plate interactions around the world. R • The students can explain the resulting geologic effects of plate boundary movement and interaction. R • The students can identify specific geologic events and features around the world and explain how plate movement or interaction is responsible for such events. R
<p>A combination of constructive and destructive geologic processes formed Earth's surface (DOK 2)</p>	<ul style="list-style-type: none"> • The students can identify various landforms on a map (i.e. mountains, valleys, ridges, plateaus, depressions). K • The students can use maps to determine what caused constructive and destructive features. R • The students can compare maps of various locations to

	<p>identify differences in landforms. K</p> <ul style="list-style-type: none"> • The students can construct a model of a beach that is experiencing erosion and deposition. R • The students can describe the conditions and constructive/destructive processes that form various landforms. K • The students can explain how plate tectonics acts as constructive and destructive processes that can cause changes in earth's surface. R
<p>Evidence of the dynamic changes of Earth's surface through time is found in the geologic record. (DOK 2)</p>	<ul style="list-style-type: none"> • The students can interpret index fossils and radiometric dating results to explain the law of superposition. R • The students can interpret and understand past environments by using the fossil record. K • The students can investigate virtual dig sites using various methods in order to determine relative and absolute ages of rock layers. R