



# MOHAWK

## Local School District

*Preparing today's students for tomorrow's challenges*

### Mohawk Local Schools 8<sup>th</sup> Grade - SCIENCE

### Quarter 3 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:

- Forces and Motion
- 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....."

Forces between objects act when the objects are in direct contact or when they are not touching.  
 (DOK 2)

- The students can identify forces that act at a distance, such as gravity, magnetism, and electrical. **K**
- The students can describe some of the properties of magnets and some of the basic behaviors of magnetic forces. **K**

	<ul style="list-style-type: none"> <li>• The students can use a field model to explain the effects of forces that act at a distance. <b>R</b></li> <li>• The students can demonstrate that the Earth has a magnetic field. <b>R</b></li> <li>• The students can explain that objects and particles have stored energy due to their position from a reference point and this energy has the potential to cause motion. <b>R</b></li> <li>• The students can explain that a field originates at a source and radiates away from that source decreasing in strength. <b>K</b></li> </ul>
<p>Forces have magnitude and direction. (DOK 3)</p>	<ul style="list-style-type: none"> <li>• The students can describe motion in relation to reference points. <b>R</b></li> <li>• The students can demonstrate how forces can oppose the motion of an object. <b>R</b></li> <li>• The students can describe a force by its magnitude and direction. <b>R</b></li> <li>• The students can construct a force diagram. <b>R</b></li> <li>• The students can describe how net force affects an object's direction and/or speed. <b>R</b></li> <li>• The students can demonstrate how forces are related to Newton's 1st Law of Motion (inertia). <b>R</b></li> <li>• The students can apply knowledge about forces to solve a problem by designing a solution. <b>PS</b></li> </ul>