



# MOHAWK

## Local School District

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

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

### Quarter 4 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>
<p>There are different types of potential energy. (DOK 2)</p>	<ul style="list-style-type: none"> <li>• The students can explore, investigate, and explain various types of potential energy. <b>R</b></li> </ul>