

## Scientific Inquiry

Marzano Framework Biology HS

Start Date: September 01, 2011

End Date : September 15, 2011

### Why is it important?

<p>Enduring Understandings</p> <p>Students will become familiar with the scientific method and the nature of science.</p>	<p>Essential Questions</p> <p>Why is the scientific method practiced? How is a scientific experiment conducted? In what other ways is the scientific method utilized? In what ways does science evolve?</p> <p>Learning Targets</p> <p>Understand the reason and logic behind the scientific method. Be able to explain and implement an experiment. Demonstrate an understanding of the presence of the scientific method in daily life. New advances correlate with changes in scientific theories.</p>	<p>Key Vocabulary</p> <p>Dependent Variable Independent Variable theory law data scientific method observation hypothesis prediction experiment control group experimental group peer review</p>
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### Standards

### Why am I teaching?

<p>Unit Objectives</p> <p>Students will become familiar with the scientific method and the nature of science.</p>
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<p><b>Content</b></p> <p>A.</p>	<p><b>Skills</b></p> <p>A. What are the steps of the scientific method? What is an independent vs. dependent variable? What is experimental design? What is scientific bias? Why must experiments be reproducible?</p>	<p><b>Assessment</b></p>
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### What additional resources do I need?

<p>Notes</p>	<p>Web 2.0 tools</p>	<p>Resources</p>
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		<p>What is and what is NOT science? Assignment Practice Test/Test- Scientific Method Microscope Lab Climatology Graph Lab Stereoscope Lab Observation Lab Proving a Hypothesis Lab Textbook Readings and Questions</p>
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## Thursday September 01, 2011 - Scientific Inquiry

Marzano Framework Biology HS

### What am I planning for my lesson?

<p>Daily Objectives</p> <p>Students will become familiar with the scientific method and the nature of science.</p>	<p>Daily Vocabulary</p> <p>Dependent Variable Independent Variable theory law data scientific method observation hypothesis prediction experiment control group experimental group peer review</p>
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### Standards

### What is my instruction for today?

<p>Marzano Instructional Strategies</p> <ul style="list-style-type: none"> <li>✓ Summarizing &amp; Taking Notes</li> <li>✓ Homework &amp; Practice</li> <li>✓ Cooperative Learning</li> <li>✓ Setting Objectives and Providing Feedback</li> <li>✓ Generating &amp; Testing Hypotheses</li> <li>✓ Questions, Cues, &amp; Advanced Organizers</li> </ul>	<p>Differentiated Instruction</p>	<p>Instructional Delivery</p> <ul style="list-style-type: none"> <li>✓ Whole Group</li> <li>✓ Small Group</li> <li>✓ Individual</li> <li>✓ Teacher Led</li> <li>✓ Learning Stations</li> <li>✓ Peer-partners</li> </ul>
<p>Lesson Outline</p>	<p>Lesson Segment</p> <ul style="list-style-type: none"> <li>✓ Practice and Deepening</li> </ul>	<p>Resources</p>

### What are my additional thoughts regarding this lesson?

<p>Reflection</p>
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**Friday September 02, 2011 - Scientific Inquiry**

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