

# INTEGRATING MATH VOCABULARY INTO YOUR MATH PROGRAM

## WEEK ONE

Objectives	Activities/Readings /Resources	Assessment	Time	Standards
<p>Participants will understand and become familiar with the goals of the course</p>	<p>Read the course syllabus, roadmap, and policies for the course. Ask one question and make one comment after reading the three documents</p> <p>A microphone and speakers are required for the course</p> <p><b>Office hours</b> will be held three times a week during the course</p> <p>Participants will have the chance to interact in a live <b>Illuminate</b> session at <a href="http://www.illuminate.com">www.illuminate.com</a></p> <p>Participants will learn the online program and evaluate its tools and functions</p>	<p>Post in I Have Read It</p>	<p>0.5 hrs</p>	<p><b>ELA 1</b> Students will read, write, listen, and speak for information and understanding</p> <p><b>ELA 3</b> Students will read, write, listen, and speak for critical analysis and evaluation</p> <p><b>MST 2</b> Standard 2 Informational technology is used to retrieve, process, and communicate information as a tool to enhance education</p>
<p>Participants will introduce themselves to other participants in the course and reveal</p>	<p>Take the survey and highlight background in mathematical language</p>	<p>Post in Electronic Name Badge</p>	<p>0.5 hr</p>	<p><b>ELA 4</b> Students will read, write, listen, and speak for social interaction</p>

<p>their mathematical background</p>				
<p>Participants will understand and establish the role of mathematical vocabulary and incorporate activities into their math programs</p>	<p>Read an overview of a sample classroom culture and routine document.</p> <p>Make a list of activities that would fit into your classroom</p> <p>Resource: Sample list of activities used in a fourth grade classroom</p>	<p>Post list in Culture</p> <p>Feedback from Rubric</p>	<p>0.75 hr</p>	<p><b>MST 3</b> Students will understand the concepts of and become proficient with the skill of mathematics by communicating and reasoning mathematics and become problem solvers by using appropriate tools and strategies through the integrated study of number sense and operations, algebra, geometry, measurement, and statistics and probability</p> <p><b>PI:</b></p> <p><b>Communications.2</b> Verbally explain reasoning for strategies</p> <p><b>Connections.3</b> Connect and apply mathematical information to solve problems</p> <p><b>Representations.1</b> Use verbal and written language, charts, and tables to represent</p>

## WEEK TWO

Objectives	Activities/Readings /Resources	Assessment	Time	Standards
<p>Participants will be aware and learn to establish the characteristics of a successful math program emphasizing math vocabulary</p>	<p>Read,  <a href="http://www.nap.edu/catalog/10434.html">http://www.nap.edu/catalog/10434.html</a>            Record findings in a KWL chart</p>	<p>Post in Math Talk            Feedback from Rubric</p>	<p>1 hr</p>	<p>ELA 1            Students will read, write, listen, and speak for information and understanding            ELA 3            Students will read, write, listen, and speak for critical analysis and evaluation            ELA CORE            P.I:            Identify purpose for reading            Recognize and discriminate among a variety of informational text              MST3            PI's:            Problem Solving.7            Represent problem situation in oral, written, concrete, pictorial, and graphical form</p>
<p>Participants will interweave five important strands of mathematics highlighting math vocabulary in each</p>	<p>Create a math lesson combining 4-5 strands highlighting math vocabulary in lesson              Resource: Article at above website, Integrating the Strands.....</p>	<p>Post in Math Lesson            Feedback from Rubric</p>	<p>2 hrs</p>	<p>MST 3            PI's:            Communications.3            Provide reasoning both in the written and verbal form            Communications.5            Share organized mathematical ideas            Connections.3            Connect and</p>

				apply mathematical information to solve problems
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## WEEK THREE

Objectives	Activities/Readings/Resources	Assessment	Time	Standards
Participants will establish routines and expectations for mathematics to help students become independent thinkers	<p>Read article on how teachers establish their ground rules for their mathematical programs</p> <p>Create management tools by designing a folder organizer</p> <p>Resource: Model of a folder organizer</p>	<p>Post in Organizer</p> <p>Feedback from Organizer Checklist</p>	2 hrs	<p><b>ELA 1</b> Read, write, and listen for understanding <b>ELA CORE</b> <b>PI:</b> Develop an idea from a brief text</p> <p><b>MST 3</b> <b>PI's:</b> <b>Problem Solving.3</b> Interpret information correctly by identifying the problem and generating solutions</p> <p><b>Representations.7</b> Construct effective representations to solve problems</p> <p><b>Statistics.3</b> Represent data using tables, bar graphs, and pictographs</p> <p><b>Communications.3</b> Provide reasoning in both the written and verbal form</p>
Participants will	Create personalized word wall template for students	Post in Word Wall	2 hrs	<p><b>MST 3</b> <b>PI:</b></p>

connect students to mathematics by building vocabulary in a personal way		Feedback from Word Wall Rubric		Statistics.3 Represent data using tables, bar graphs and pictographs
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## WEEK FOUR

Objectives	Activities/Readings /Resources	Assessment	Time	Standards
Participants will learn to generate good problem solving to enhance mathematical communication	<p>Search for math focus articles that focus on student communication and that are aligned to the NYS standards</p> <p>Provide a summary as to why the problem solving activities chosen enhance communication</p> <p>Resources: Web sites like Marco Polo, editorials, etc.</p> <p>Participants will meet in Elluminate Live for a web tour of Marco Polo NY</p>	<p>Post in Communication</p> <p>Feedback from Rubric</p>	1 hr	<p>MST 3 PI's: Communications.3 Provide reasoning in both the verbal and written form</p> <p>Communications.2 Verbally explain reasoning for strategies</p> <p>Communications.5 Model situations with objects, charts, tables</p> <p>Problem Solving.3 Interpret information and identify the problem and generate solutions</p> <p>PS.20 Determine what information is needed to solve a problem</p>

				PS.25 Determine whether a solution is reasonable
Participants will evaluate and use important state, district, and classroom documents as a checklist and resource for mathematical vocabulary	<p>Look at the NYS Standards and Performance Indicators for your grade level and create a required math vocabulary list your students have to learn</p> <p>Resource: Your district maps and guidelines, your math textbooks, NYS Sample and 2006 Math Assessments, and <a href="http://www.emsc.nysed.gov/3-8/guidancepk8.htm">http://www.emsc.nysed.gov/3-8/guidancepk8.htm</a></p> <p>Copy list from the State Standards for your own personal reference.</p> <p>Create a math vocabulary list for the Measurement Strand for your grade level</p>	<p>Post in Word List</p> <p>Feedback from Rubric</p>	2 hrs	<p>MST 3</p> <p>PI's: Connections.2 Verbally explain rationale for choosing strategies</p> <p>Connections.3 Connect and apply mathematical ideas to solve problems</p> <p>Reasoning and Proof.1 Use verbal and written language, charts, tables, and representations</p>

## WEEK FIVE

Objectives	Activities/Readings/Resources	Assessments	Time	Standards
Participants will acquire ideas on how to help students express	<p>Read, <a href="http://books.heinemann.com/products/E00634.aspx">http://books.heinemann.com/products/E00634.aspx</a>, Chapter on "Reflections"</p> <p>What three elements jump out at you?</p>	<p>Post in Reflections</p> <p>Feedback from Rubric</p>	1 hr	<p>MST 3</p> <p>PI's: Connections.5 Model situations with objects of representations</p>

<p>their mathematical thinking clearly and logically</p>	<p>How would you use these reflection exercises in your program?</p> <p>What requirements would be necessary for your students to fulfill an excellent reflection?</p>			<p><b>Connections.2</b> Verbally explain rationale for choosing strategies</p> <p><b>Reasoning and Proof.4</b> Make conjectures from a variety of representations and use reasoning and proof to support mathematical ideas</p>
<p>Participants will learn problem solving and vocabulary strategies to configure conversation arrangements</p>	<p>Read information on vocabulary strategies and conversation arrangements in the classroom</p> <p>Develop a lesson using vocabulary strategies and conversation arrangements</p> <p>Define the student and teacher role during the lesson</p>	<p>Post in Conversations</p> <p>Feedback from Rubric</p>	<p>1 hr</p>	<p><b>MST 3 PI's:</b></p> <p><b>PS.21</b> Discuss with peers to understand the problem situation</p> <p><b>PS.13</b> Work in collaboration with others to solve problems</p> <p><b>PS.16</b> Analyze problems by identifying relationships</p> <p><b>ELA CORE PI's</b> Listen respectfully Avoid interrupting Respond appropriately</p>

## WEEK SIX

Objectives	Activities/Readings/Resources	Assessments	Time	Standard
<p>Participants will learn ideas on classroom management, evaluations, and procedures that happen at regular intervals, weekly, bi-weekly, and monthly</p>	<p>Read the information on management, evaluations, and vocabulary procedures and generate a list for each to be used in the classroom</p>	<p>Post in Lists  Feedback from Rubrics</p>	<p>1 hr</p>	<p>ELA 1 Students will read, write, listen, speak for information and understanding</p> <p>MST 3 PI's: 4.PS.5 Formulate problems and solutions 4.PS.3 Interpret information, identify the problem and generate solutions 4.PS.1 Explore, examine, and make observations about mathematical situations</p>
<p>Participants will evaluate the course</p>	<p>Complete the online evaluation</p>	<p>Post in Evaluation</p>	<p>0.25 hr</p>	