

Road Map: Understanding New NYS Math Standards

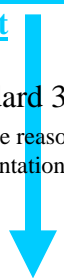
Content Strands:

1. Number Sense and Operation (NS)
2. Algebra (A)
3. Geometry (G)
4. Measurement (M)
5. Statistics and Probability (SA)

Process Strands:

1. Problem Solving (PS)
2. Communication (CM)
3. Connections (CN)
4. Representation (R)
5. Reasoning and Proof (RP)

Week One

| Objective | Web Link | Activity | Assessment | Time | Standards |
|--|---|---|---|------------------------|--|
| Topic: understand the policies and requirements prior to beginning the course work | http://www.illuminate.com | Read the course syllabus and electronically sign the agreement View “Illuminate” site to evaluate its uses and purpose for your learning. | <ul style="list-style-type: none"> Posting of agreement to course syllabus Participation of first “Illuminate” tutorial | 1.5 | MST Standard 2 <u>Information Systems</u> Information technology is used to retrieve, process and communicate information, and as a tool to enhance education. PI: Systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources. |
| Topic: Become familiar with course participants by answering questions in “icebreaker” activity | | Questions related to subject and grade levels taught | <ul style="list-style-type: none"> Posting of responses to questions asked of participants | .25 | N/A |
| Topic: Become aware/Discover new NYS Math standards: Content & Process | http://www.emsc.nysed.gov/3-8/MathCore.pdf | Prior Knowledge <ul style="list-style-type: none"> <u>list</u> standards they know (Content and Process) Learn- <ul style="list-style-type: none"> <u>Name</u> 5 content Strands and 5 Process Strands <u>Evaluate</u> new Standards by <u>ranking</u> | <ul style="list-style-type: none"> Agree/Disagree Chart (prior Knowledge) Pre-Test/Post Test (learn) Post Acronym (learn) 3 2 1 chart (reflect) | .5 .5 .5 | MST Standard 3 CM.1 understand and explain organized thought process <u>Content Strands embedded- depending on what area chosen by participant</u>  MST Standard 3 CM.2 provide reasoning in written representation |

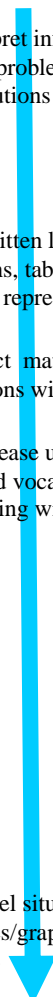
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|--|--|--|--|--|--|
| | | <ul style="list-style-type: none"> ▪ <u>Create</u> Acronyms to learn new Standards <p>Metacognition <u>Process and review</u> new information on Content Process standards</p> | | | MST Standard 3 CN.1 recognize, understand, and make connections in everyday experiences to math ideas |
|--|--|--|--|--|--|


Week Two

| Objective | Web Link | Activity | Assessment | Time | Standards | |
|--|---|---|---|---|--|---|
| Topic: Apply 5 Process Strands to 1 content area strand | http://www.emsc.ny.gov/3-8/MathCore.pdf | Prior Knowledge | <ul style="list-style-type: none"> ▪ Posting comments/critiques of other's acronyms | .5 | MST Standard 3 CM.7 restate math solutions shared by others | |
| | | Learn- | <ul style="list-style-type: none"> ▪ <u>Make</u> critiques of other Acronyms ▪ <u>Locate and name</u> 1 topic covered in grade level (1 content strand) ▪ <u>Apply 5</u> process strands to 1 content strand | <ul style="list-style-type: none"> ▪ Naming Textbook/Unit ▪ Follow/Post Model ▪ Posting Assignment | .5 | PS.16 analyze problems by identifying relationships |
| | | Metacognition <u>Rank</u> Process strands | <ul style="list-style-type: none"> ▪ Ranking Ladder (graphic Organizer) | .5 | CN.6 recognize the presence of mathematics | |



Week Three/Four

| Objective | Web Link | Activity | Assessment | Time | Standards |
|---|---|---|---|-------|--|
| Topic: View scope and sequence of grade level and create timeline of pre march topics and post March topics to be covered for said grade level | http://www.emsc.ny.gov/3-8/MathCore.pdf | Prior Knowledge <ul style="list-style-type: none"> ▪ Evaluate skills of incoming students ▪ Create “wish list” of incoming dream class | <ul style="list-style-type: none"> ▪ Wish list | .5 | MST Standard 3 PS.1 Explore, examine and make observations about a social problem or mathematical situation PS.3 Interpret information correctly, identify the problem, and generate possible solutions |
| | | Learn- <ul style="list-style-type: none"> ▪ <u>Locate/Apply</u> NYSED website information ▪ Show understanding of grade level topics <u>by completing table</u> ▪ Create Timeline of events covered throughout the year | <ul style="list-style-type: none"> ▪ Table of pre and post grade levels Timeline | 2.5hr | R.1 Use written language, models, charts, graphs, tables, symbols, and equations as representatives R.6 Connect mathematical representations with problem solving CM.9 Increase use of mathematical language and vocabulary when communicating with others |
| | | Metacognition <u>Evaluate</u> their students’ readiness for next grade level through journaling | <ul style="list-style-type: none"> ▪ Journaling responses to prompts | 1hr | CN.5 Model situations with objects/tables/graphs and make observations  |

| Week Five | | | | | |
|--|--|--|--|---------------------------------|--|
| Objective | Web Link | Activity | Assessment | Time | |
| <p>Topic: View scope and sequence of pre & post grade level curriculums to better comprehend own grade level expectations</p> | <p>http://www.emsc.ny.gov/3-8/MathCore.pdf</p> | <p>Prior Knowledge</p> <ul style="list-style-type: none"> ▪ <u>Locate/describe</u> Scope and Sequence for pre post grade levels <p>Learn-</p> <ul style="list-style-type: none"> ▪ <u>Compare/Contrast</u> your curriculum to the pre and post grade levels <p>Metacognition <u>Evaluation</u> of what teacher can do to “bridge” topics and encourage conversation of math continuum through grade levels</p> | <ul style="list-style-type: none"> ▪ Posting of scope and sequence ▪ Venn Diagram ▪ “Bridge” Graphic Organizer ▪ Thinking @ Right Angles-graphic Organizer | <p>.5</p> <p>1hr</p> <p>1hr</p> | <p>MST Standard 3</p> <p>RP.4 Make conjectures from a variety of representations</p> <p>CM.2 Explain rationale for strategy selection</p> <p>CM.1 Understand and explain how to organize thought process</p> <p>RP.1 Use representations to support mathematical ideas</p> <p>RP.7 Discuss, listen, and make comments that support or reject claims made by others</p> <p>PS.16 analyze problems by identifying relationships</p>  |

Week Six

| Objective | Web Link | Activity | Assessment | Time | Standards |
|---|--|---|--|--|---|
| <p>Topic: Understand the Assessment of New York State Math Exam and how students can be successful on the test @ grade level</p> | <p>http://www.emsc.nysed.gov/3-8/MathCore.pdf</p> | <p>Prior Knowledge</p> <ul style="list-style-type: none"> Brainstorming test taking tips <p>Learn-</p> <ul style="list-style-type: none"> Create Rubrics Evaluate Rubrics Describe Advantages/disadvantages of rubrics Compare/Contrast Multiple choice vs. Extended Response <p>Metacognition Evaluate teaching techniques that can have students be successful on Multiple choice and extended response sections of NYS Math Exam</p> | <ul style="list-style-type: none"> Generated List Rubrics Description of Multiple choice vs. Extended Response PMI chart | <p>.5</p> <p>1hr 1hr</p> <p>.5</p> | <p>MST Standard 3</p> <p>PS.13 Work in collaboration with others to solve problems</p> <p>PS.15 Make organized lists to solve problems</p> <p>RP.1 Use representations to support mathematical ideas</p> <p>RP.7 Discuss, listen, and make comments that support or reject claims made by others</p> <p>PS.16 analyze problems by identifying relationships</p> |
| <p>Topic: Participant evaluation of the course</p> | | | <ul style="list-style-type: none"> Posting of acknowledgement of evaluation | .25 | |

