Algebra 1 – Critical Area of Focus #1 (Relationships Between Quantities and Reasoning with Equations)

Learning Objectives - Workshop

In this workshop, participants will be provided with opportunities to:

- Become familiar with connections between critical areas, conceptual categories, and instructional units.
- Become familiar with learning progressions and coherence maps.
- Gain a deeper understanding of one conceptual category - domain pair associated with Algebra 1 - Critical Area of Focus #1 in Ohio's Learning Standards for Mathematics.
- Gain a deeper understanding of one or more content standard associated with Algebra 1 - Critical Area of Focus #1 in Ohio's Learning Standards for Mathematics.
- Develop an assessment task or tasks to measure students' development of intended understandings, skills, and habits of mind related to standards associated with Algebra 1 - Critical Area of Focus #1 in Ohio's Learning Standards for Mathematics.
- Develop a diagnostic (or pre-assessment) to measure students' understandings, skills, and habits of mind related to standards associated with Algebra 1 - Critical Area of Focus #1 in Ohio's Learning Standards for Mathematics.
- Develop a sequence of lessons (with accompanying materials and resources) designed to support your students' development of intended understandings, skills, and habits of mind (e.g., prepare your students to be 'successful' on your assessment task or tasks)
- Develop materials (e.g., assessment task, a diagnostic, sequence of lessons) that meet your students' varied learning needs. In particular, students who perform or show potential for performing at higher levels of accomplishment when compared to other students of their age, experience, or environment (gifted students).
- Implement your diagnostic, sequence of lessons (and accompanying materials and resources), and assessment task(s), and reflect on your experience.

Note:

It is possible - due to your pacing guide and time constraints - that you might only be able to implement portions of the materials created in this workshop. If this is the case, don't worry, but please try to implement as much material as possible.

In each of the following Modules, participants focus on one or more content standard from Critical Area of Focus #1 (**N.Q.1, N.Q.2, N.Q.3, A.SSE.1a, A.SSE.1b, A.CED.1a, A.CED.1b, A.CED.2a, A.CED.2b, A.CED.3, A.CED.4a, A.REI.1, A.REI.3**)

Learning Objectives - Module #1

In this module, participants will be provided with opportunities to:

- Gain a deeper understanding of conceptual categories, domains, clusters, and standards.
- Become familiar with critical areas.
- Become familiar with big ideas.

- Become familiar with connections between critical areas, conceptual categories, and instructional units.

Learning Objectives - Module #2
In this module, participants will be provided with opportunities to:

- Gain a deeper understanding of the connections between the mathematics content and mathematical practice standards.
- Become familiar with the idea of classifying tasks by their intended purpose.
- Become familiar with notion of backward design.
- Develop assessment tasks that evaluates your students' development of intended understandings, skills, and habits of mind.
- Develop assessment tasks and evaluation criteria that meet your students' varied learning needs (e.g., gifted students).

Learning Objectives - Module #3
In this module, participants will be provided with opportunities to:

- Gain a deeper understanding of what it means for a mathematics curriculum to be coherent.
- Become familiar with learning progressions.
- Develop a pre-assessment or diagnostic that measures students' pre-requisite understandings, skills, and habits of mind.
- Develop diagnostic/pre-assessment and evaluation criteria that address your students' varied learning needs (e.g., gifted students).

Learning Objectives - Module #4
In this module, participants will be provided with opportunities to:

- Gain a deeper understanding of what it means to utilize a pre-assessment (or diagnostic) to inform instruction.
- Gain a deeper understanding of what it means to utilize backward design.
- Develop a lesson or sequence of lessons that support your students' development of intended understandings, skills, and habits of mind.
- Develop a lesson or sequence of lessons that address your students' varied learning needs (e.g., gifted students).

Learning Objectives - Module #5
In this module, participants will be provided with opportunities to:

- Reflect on the impact the workshop and workshop materials had on your practice.
- Reflect on how any materials designed as part of the workshop and implemented in your classroom impacted your practice.
- Reflect on the impact the workshop and workshop materials had on your capacity to address your students' varied learning needs.
- Support the professional learning of colleagues throughout the state by providing constructive feedback on workshop (i.e., module) assignments.