

Understanding of Fraction and Fraction Operations in Grades 3-5 an Asynchronous Course

Course opens the week of January 18, 2021 through June 2021.

Enrollment will remain open and continuous through June 2021.

Delivery Mode: Fully Asynchronous- follow a learning pathway at your own pace when it's convenient for you.

Platform: All course materials and activities will be accessible through a Google Classroom.

Audience: General and special education teachers, coaches, and administrators.

This four-part asynchronous series will engage participants in activities designed to expand current perspectives and pedagogies around fraction understanding and fraction instruction in the elementary grades during remote and hybrid instruction.

“Weak or incomplete mathematical understanding of rational number concepts has a profound impact on students’ success in algebra” (Reeder, 2017).

In this series, you will examine and analyze information about how students conceptualize fractions and what teachers can do to facilitate students’ understanding of fractions as numbers, especially in our current remote or hybrid instructional models. You will consider the connections between whole number understanding and fraction understanding and how to help students create conceptual understandings of fractions that build to procedural fluency over time. You will study representations of fractions, including concrete, visual, symbolic, contextual, and verbal as well as the connections among those representations in order to help your students deepen and expand their fraction comprehension.

Please note that a variety of interactive tools including virtual manipulatives and applications from the Google Suite will be employed during these sessions.

Cost: \$600 per person.

To register, please visit <https://aiumsc-fractions3-5-asynchronous.eventbrite.com>

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Problem Solving Through Open Ended Math Tasks during Distance Learning For Grades 3-8 and Algebra, an Asynchronous Course

Course opens the week of January 4, 2021 through June 2021.

Enrollment will remain open and continuous through June 2021.

Delivery Mode: Fully Asynchronous- follow a learning pathway at your own pace when it's convenient for you.

Platform: All course materials and activities will be accessible through a Google Classroom. Video recordings from virtual sessions will be made available to supplement your asynchronous learning experience.

Audience: Grades 3-8 and Algebra 1, general and special education teachers, coaches, and administrators.

- **Are your students struggling with solving open-ended mathematics items?**
- **Are you struggling with facilitating open-ended mathematics tasks and developing students' problem solving skills in a remote learning setting?**

This four-part asynchronous series will engage participants in activities and discussion designed to expand current perspectives and pedagogies around how to best support students in solving open-ended math tasks.

- To “flip the switch” on students’ problem solving skills, **3 Act Tasks** will be introduced and implemented through asynchronous instruction.
- Strategies will be explored to support students’ **comprehension of word problems**.
- Techniques will be highlighted to improve students’ spoken and **written math explanations**.
- Teachers will be introduced to strategies for providing **student feedback** in a hybrid or remote setting to help students improve their problem solving and writing skills.
- An overview of the **scoring of PSSA items** will be reviewed to provide context as to why these strategies are essential to bolster *all* students’ achievement.
- Free tools such as **Desmos, Google Slides, Flipgrid, and Nearpod** will be utilized throughout.

Cost: \$600 per person.

To register, please visit <https://aiumsc-problemsolvingmathtasks.eventbrite.com>

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