

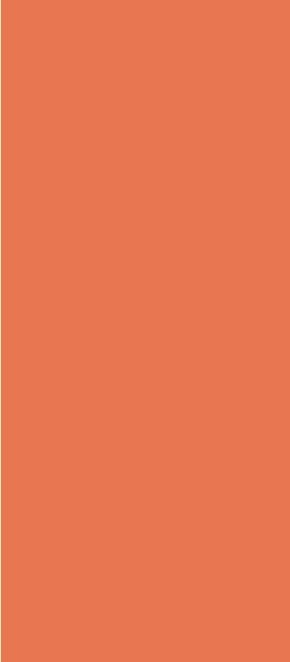
DAVIS SCHOOL  
DISTRICT

# SUPPLEMENTAL CO-REQUISITE MATH

## Guidelines

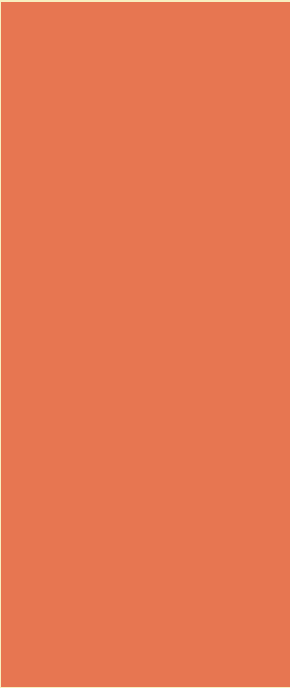
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12.19



# Course Description

"A CLASS WHERE WE REPAIR A  
STUDENTS RELATIONSHIP WITH  
MATHEMATICS"



Co-Requisite Supplemental Math is intended to increase student understanding and achievement by increasing time, intensity and access to high-cognitive rigor for on-grade level core standards. This course focuses on pre-teaching on -grade level material before students learn the curriculum in the regular math class and secondarily focuses on reteaching on-grade level curriculum. Opportunities that teach prerequisite skills are directly tied to and taught in context of on-grade level content. Students can expect to be exposed to frequent and regular use of task-based learning in order to meet these objectives as well as regular and intentional interactions with the teaching and learning Mathematical Practices.

# Co-Requisite Math Teaching and Learning Recommendations

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## **Pedagogy Best Practices**

- Student Centered Classroom Discussion (Hattie effect size 0.82) *including Number Talks, Jigsaws, Think-Pair-Share, Group Work, K-W-L, Student Presentations/Projects, Learning Centers.*
- Metacognitive Strategies (Hattie effect size 0.69) *including Brainstorming, Three-Read Protocol, Student Reflections.*

## **Regular and Intentional Use of Math Manipulatives**

Algebra Tiles

Base Ten Blocks

Two-Colored Counters

Tangrams

*More information in Resources*

## **Classroom Norms/Routines**

- Primary focus on pre-teaching (65-70% of instructional time).
- Secondary Focus on re-teaching in context of on-grade level content (20-25% of instructional time).
- Tertiary focus on "homework help" (10-15% of instructional time).
- Pass/Fail with a special emphasis on looking for student "right-ness" and providing feedback for improvement.
- No additional homework.
- Heterogeneous groupings of students.
- If a student passes (70% or above) Co-Requisite Math allow them to earn "P" credit for the previous year's math course by adding it to their transcript.
- Pre-teaching and re-teaching experiences are focused on high quality mathematical tasks with intentional use of the Mathematical Teaching and Learning Practices (see DSD Secondary Math Website: <https://www.davis.k12.ut.us/academics/mathematics/high-school-mathematics>).
- All remediation is to be done in context of on-grade level content with a special focus on intentional and explicit facilitation of student mathematical connections to previous content.
- Clear student entry and clear student exit into Co-Requisite Math based on student need on a quarter-by-quarter basis.

# Co-Requisite Math Social Emotional Learning Recommendations

"A CLASS WHERE WE REPAIR A STUDENTS RELATIONSHIP WITH MATHEMATICS"

## Math Anxiety

- Acknowledge student's math anxiety and the complex relationship between mathematical identity and mathematical success (Students draw themselves "doing math" followed by a conversation about the picture they drew).
- Spend time teaching math anxiety coping skills, such as meditation and breathing techniques--particularly prior to exams or quizzes.
- Be mindful of the questions that you ask your students:

### Anxiety Triggers

- What is the answer?
- What is the next step?
- What is the formula?
- Quick!
- Don't Forget!

### Mindful Responses

- What do you notice?
- What does it mean?
- How do I know?
- What happens if ...?
- How can you defend your solution?
- What seems reasonable?

- Make traditional math exam/quiz/assessment accommodations--Remove the Question (see resources) and Assessment Day Collaboration (see resources).

# Co-Requisite Math Resources

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## **Pedagogy Resources**

These books are available at no cost to DSD educators and can be completed as part of a book study for 1.0 USBE Credit Hours, Contact [lhenderson@dsdmail.com](mailto:lhenderson@dsdmail.com):

- Principles to Actions: Ensuring Mathematical Success for All
- 5 Practices For Orchestrating Productive Mathematical Discussions
- Taking Action: Implementing Effective Mathematics Teaching Practices in Grades 6-8
- Taking Action: Implementing Effective Mathematics Teaching Practices in Grades 9-12
- Mathematical Mindsets
- Making Number Talks Matter More

## **Secondary Math Manipulatives**

Algebra Tiles, Base Ten Blocks, Two-Colored Counters, and Tangrams are available through purchasing at a cost of approximately \$150/teacher. Contact [lhenderson@dsdmail.net](mailto:lhenderson@dsdmail.net) for information or help with ordering.

## **Social Emotional Learning Resources**

- Remove the Question - Show an equation or diagram on the first page and ask the student to brainstorm and share what they know about what they see. On the second page, show the equation or diagram again and then ask, if you haven't already done this math operation (calculated the area/factored the equation/etc.) please do it now.
- Assessment Day Collaboration - Take all students writing utensils away, pass out the test and allow the students to talk to a peer about what they see for 5-10 minutes. Use collaboration to help activate prior knowledge.