

## Equipping Math Teachers with Content and Pedagogy for Student Success

March 12, 2020

10:00 a.m.–3:00 p.m.

Time	Objective	Intended Outcomes
10:00 a.m.	Introduction to research base and key terms: mathematizing, real math, mentoring mathematicians, numeracy, fluency	Participants learn the definitions of key terms used throughout the rest of the day.
10:20 a.m.	Problem string to illustrate mathematizing and build multiplicative reasoning	Participants learn/solidify notions of what it means to do real mathematics, use the area model to represent multiplication strategies.
11:00 a.m.	The development of mathematical reasoning progression	Participants learn the progression of developing mathematical reasoning, with examples of each domain and the pitfalls of teaching algorithms and the answer getting culture.
12:00 p.m.	<b>Lunch</b>	
1:00 p.m.	Additive reasoning	Participants construct additive reasoning.
1:20 p.m.	Multiplicative reasoning	Participants construct multiplicative reasoning.
1:40 p.m.	Proportional reasoning	Participants construct proportional reasoning.

2:00 p.m.	Functional reasoning	Participants construct functional reasoning.
2:30 p.m.	Reflection, implications for implementation, leader suggestions, Q/A	Participants plan for implementation.

### **Wrap Up**

2:55p.m.	Stakeholder Feedback Surveys
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