



# Engaging Students Mathematically K-12:

*How can Teachers Engage Students, Spurring Mathematical Learning?*

June 29-30, 2009



## JUNE 29 AGENDA

<b>10:00-10:15</b>	<b>Welcome, Introductions and Agenda Overview</b>
	<p>Participants will:</p> <ul style="list-style-type: none"> <li>Investigate the research associated with how students learn mathematics</li> <li>Gain insights into how the classroom environment impacts student learning</li> <li>Investigate strategies to help student and parents understand the importance of mathematics</li> <li>Learn strategies to engage students and build confidence for learning mathematics.</li> </ul>
<b>10:15-11:45</b>	<b>K-12: Creating a productive and safe learning environment to promote engagement in learning important mathematics</b>
	<p>Participants will engage in activities which explore these essential questions:</p> <ul style="list-style-type: none"> <li>What are some alternate response strategies which engage <b>all</b> learners in thinking about and responding to questions in mathematics?</li> <li>What are some techniques for engaging students through productive social interaction? How do we hold students accountable for participating in group activities? How do we assess students individually while they are working with others?</li> <li>Can we really motivate all students to learn important mathematical concept? What does the research tell us?</li> <li>What factors contribute to students “dropping out” or “checking out” of classroom discussions and activities?</li> <li>What does <b>PQ + CQ &gt; IQ</b> mean? How does this conceptual statement relate to our 21<sup>st</sup> Century students?</li> </ul>
<b>11:45-12:30</b>	<b>LUNCH (provided)</b>
<b>12:30-2:15</b>	<b>K-12: Continuing the journey of exploring ways to motivate students to learn important mathematics.</b>
	Participants will continue to engage in the above activities as a whole group.
<b>2:15-2:30</b>	<b>BREAK</b>
<b>2:30-3:45</b>	<b>Grade level discussions and reflection</b>
	<ul style="list-style-type: none"> <li>Grade level groups will reflect on the different engagement strategies modeled during the workshop. How can these be effectively implemented in classrooms? The following questions may arise as participants are working within their grade-level groups:             <ul style="list-style-type: none"> <li>What strategies work best in which situations? How can we alter them in order to meet the needs and levels of the students we teach?</li> <li>What problems may occur as we are using the strategies with students? What could we do to anticipate the problems?</li> </ul> </li> </ul>
<b>3:45-4:00</b>	<b>Wrap-up</b>

## JUNE 30 AGENDA

<b>BREAKOUT SESSIONS 8:00-11:45</b>	<b>K-6: Observing student engagement in action</b>	<b>7-12: Observing student engagement in action</b>
	<ul style="list-style-type: none"> <li>Participants will either get the chance to observe local classrooms or watch videos to obtain ideas on how teachers use strategies to engage and motivate students.</li> <li>Debrief and summarize observations.</li> </ul>	<ul style="list-style-type: none"> <li>Participants will either get the chance to observe local classrooms or watch videos to obtain ideas on how teachers use strategies to engage and motivate students.</li> <li>Debrief and summarize observations.</li> </ul>
<b>11:45-12:30</b>	<b>LUNCH (provided)</b>	
<b>12:30-1:30</b>	<b>K-6: Addressing the student motivation challenge in my own classroom? What will I do tomorrow?</b>	<b>7-12: Addressing the student motivation challenge in my own classroom? What will I do tomorrow?</b>
	Ideas will be brought forward with an opportunity to ask further questions, share instructional strategies and implementation ideas, and to obtain ideas from others.	Ideas will be brought forward with an opportunity to ask further questions, share instructional strategies and implementation ideas, and to obtain ideas from others.
<b>1:30-2:00</b>	<b>Whole Group Discussion &amp; Summarization</b>	<b>Whole Group Discussion &amp; Summarization</b>