

Illustrating the Standards for Mathematical Practice

2012 ♦ NCSM/AMTE

Teaching and Learning: Professional Learning Modules

DESCRIPTION

“The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important ‘processes and proficiencies’ with longstanding importance in mathematics education.” (CCSS, 2010)

If you are struggling to help mathematics teachers understand and implement the Common Core State Standards (CCSS) for Mathematical Practice, you certainly are not alone; however, there are NCSM resources ready to help.

On the NCSM website, mathematics education leaders will find a rich collection of 14 professional learning modules entitled, *Illustrating the Standards for Mathematical Practice*. Each module in the series contains a PowerPoint presentation with facilitator notes, classroom artifacts (e.g., video or student work samples), and other needed handouts in ready-to-use downloadable formats. We believe that this series stands alone in the mathematics education community as a resource specifically designed to help teachers develop a vision of the CCSS for Mathematical Practice. NCSM was able to produce this series in a timely manner with a generous grant from the Noyce Foundation.

At <http://www.mathedleadership.org/ccss/itp/index.html>, you will find an index with grade bands across the top part of the table, and the practices listed along the left axes. Colored buttons labeled with sample tasks reveal the numerous resources for each module when clicked on. Under the title of Module Resources is a PowerPoint Presentation document, a PDF document with an example of a task that illustrates a specific practice at a grade band listed, and, if available, a Module Video.

Introduction to the CCSS Standards for Mathematical Practice

Professional Learning Module Index
Powerful PD resources at your fingertips!

Click a button below to view resources for that module.

	K - 2	3 - 5	6 - 8	9 - 12
Problem Solving & Precision		Problem of the Month		Properties of Quadrilaterals
Reasoning & Explaining		Properties of Operations	Button Pattern	Congruence and Similarity
Modeling & Using Tools		Penny Jar	Representing Number Sentences	Comparing Linear Functions
Seeing Structure & Generalizing		Patterns with Walls	Odd Number Patterns	Sidewalk Patterns

STAGE 2 LEADERSHIP

For a stage 2 leader, the *Mathematical Practice Professional Learning Modules* resources can be used in a variety of ways depending on the kind of PD you are looking for. For example, if you are working with individual teachers, the modules could be used as a starting point for a teacher who is embedding a practice in their lessons. Together, you could walk through the module, reflect on the lesson used, and perhaps modify the lesson for use in the teacher’s own classroom.

If you are working with small/large groups of teachers, you could use these modules exactly as they are written. Perhaps you could begin by having teachers acknowledge things they already do by having them discuss with a shoulder partner what they currently do to foster a particular practice. Then have them list 2 or 3 things that could be extensions of this practice. Challenge the teachers to design how they could change their approach to the lesson or activity to enhance student understanding of this practice. Finally, have them reflect on how they can cycle back to this practice in a future lesson.