



# Principles to Actions Professional Learning Toolkit

<http://www.nctm.org/PtAToolkit/>

Grade-band specific professional learning modules focused on the Effective Teaching Practices from *Principles to Actions: Ensuring Mathematical Success for All*. Modules include presentation slides (as Powerpoint files), presenter notes, and materials to support professional learning by analyzing artifacts of teaching (e.g., math tasks, narrative and video cases, student work samples).

<b>Effective Teaching Practices</b>		Primary emphasis		Secondary emphasis					
To access module materials, use links on left column of table below.									
		Establish math goals to focus learning	Implement tasks that promote reasoning and problem solving	Use and connect math representations	Facilitate meaningful math discourse	Pose purposeful Questions	Build procedural fluency from conceptual understanding	Support productive struggle in learning math	Elicit and use evidence of student thinking
<b>Elementary School</b>									
Band Concert* >									
Addition Strings >			Primary				Primary		
Donuts >				Primary		Primary			
Half of a whole* >					Primary	Primary			
Bubble Gum >				Primary		Primary			
Multiplication String >			Primary				Primary		
Hungry Caterpillar >								Secondary	Secondary
<b>Middle School</b>									
Candy Jar* >									
Calling Plans 2 >						Primary			
Hexagon >								Primary	Secondary
Counting Cubes* >				Primary	Primary				
Two Tanks >				Primary		Primary			Primary
Triangle >			Primary				Primary		
<b>High School</b>									
Pay It Forward* >									
S-Pattern* >								Primary	Secondary
Playground >						Primary		Primary	
Bike and Truck >					Primary	Primary			
Calling Plans 1 >				Primary		Primary			
Sine Waves >						Primary		Primary	