



Mathematics Teaching Practices

In *Principles to Actions*, the authors describe 8 practices of effective teachers. As an instructional leader, you facilitate teachers' growth in developing these practices.

<p>Practice 1 – Establish mathematics goals to focus learning.</p> <p>Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.</p>	<p>Practice 2 – Implement tasks that promote reasoning and problem solving.</p> <p>Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies.</p>
<p>Practice 3 – Use and connect mathematical representations.</p> <p>Effective teaching of mathematics engages students in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.</p>	<p>Practice 4 – Facilitate meaningful mathematical discourse.</p> <p>Effective teaching of mathematics facilitates discourse among students to build shared understanding of mathematical ideas by analyzing and comparing student approaches and arguments.</p>
<p>Practice 5 – Pose purposeful questions.</p> <p>Effective teaching of mathematics uses purposeful questions to assess and advance students' reasoning and sense making about important mathematical ideas and relationships.</p>	<p>Practice 6 – Build procedural fluency from conceptual understanding.</p> <p>Effective teaching of mathematics builds fluency with procedures on a foundation of conceptual understanding so that students, over time, become skillful in using procedures flexibly as they solve contextual and mathematical problems.</p>
<p>Practice 7 – Support productive struggle in learning mathematics.</p> <p>Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.</p>	<p>Practice 8 – Elicit and use evidence of student thinking.</p> <p>Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction continually in ways that support and extend learning.</p>