Chapter 2 Application Guide

Use the application guide to connect these ideas and tools to your classroom practices.

Chapter 2 Topics	Connect to Your Classroom
Improving access and equity	Provide rich mathematical experiences that prompt students to question, conjecture, justify, and work collectively. Strive for balance between whole- and small-group learning, individual accountability and collaborative efforts, and conceptual understanding and procedural practice. Avoid grouping students by ability.
Implementing classroom routines	Try number talks, Notice and Wonder, and Which One Doesn't Belong? to help students with a range of mathematical experiences and abilities contribute to class discussions and build shared understanding. Use talk moves to improve discussions.
Organizing math workstations	Use flexible grouping for workstations. Create a system for guiding rotations and keeping records of workstation learning. Include instructions and materials that are easy to adjust for differentiation. Discuss with students during a post-workstations gallery walk or have students write in their math journals about their station experiences, any problems that arose, strategies, and solutions.
Using small-group instruction	Pull a small group of four to six students for enrichment or reinforcement but avoid always meeting with the same set of students.
Following the concrete-pictorial-abstract continuum	Have students first model at the concrete level with manipulatives and then at the pictorial level by drawing pictures before performing at the abstract level with only numbers and symbols. Remember that modeling the concept and providing lots of opportunities to practice is extremely important at all three levels. Allow students time to make connections between the forms of representation.
Using concrete and virtual manipulatives	Provide a variety of concrete manipulatives like tiles, geoboards, and counters to allow students to reconstruct concepts with a physical representation of the problem. Incorporate virtual manipulatives as an economical and easily accessible alternative to physical models.