Routines for Reasoning: Fostering the Mathematical Practices in All Students

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Description:

Routines can keep your classroom running smoothly. Now imagine having a set of routines focused not on classroom management, but on helping students develop their mathematical thinking skills. Routines for Reasoning provides expert guidance for weaving the Standards for Mathematical Practice into your teaching by harnessing the power of classroom-tested instructional routines.

Grace Kelemanik, Amy Lucenta, and Susan Janssen Creighton have applied their extensive experience teaching mathematics and supporting teachers to crafting routines that are practical teaching and learning tools, including:

* Capturing Quantities: encouraging abstract and quantitative reasoning
* Connecting Representations: noticing and using mathematical structure
* Recognizing Repetition: developing repeated reasoning skills
* Three Reads: starting and sustaining thinking in problem solving situations

Each routine provides a familiar, accessible structure that supports repeated use until the steps to follow, thinking skills to employ, and questions to ask become automatic-enabling all students to engage more fully in learning opportunities while building crucial mathematical thinking habits.

"Teaching students to think and reason is perhaps the greatest challenge we face as math educators," the authors remind us, "and these routines provide clear pathways to do so." Far beyond simply a collection of strategies, Routines for Reasoning provides significant support for getting started with these routines, incorporating them into the rhythm of your classroom, and ultimately building toward student independence.