

Response to Ed Reports: Primary Mathematics International by Japan Math

Primary Mathematics International (PMI) is designed to provide students with a comprehensive understanding of mathematical concepts while developing their independent problem-solving skills. All contents specified in the Common Core State Standards (CCSS) for mathematics are presented in our K-5 textbooks, though not necessarily in the specified order, adhering instead the highly successful and proven Japanese public school mathematics progression. Hence, while CCSS grade requirements may not be met when grades are considered individually, all the requirements are indeed met over the span of the student's education.

PMI provides a coherent mathematics curriculum with topics arranged so that students can easily build their knowledge with each lesson. The Try-Apply-Understand-Master sequence gives students a structure with which to frame their inquiries while providing room to explore and discuss new concepts with classmates. In the "Try" step, students are challenged to engage unfamiliar problem situations, highlighting gaps in their knowledge. The "Understand" step then guides them to explore this gap and discover the new knowledge that allows them to solve the problem. Integrating new knowledge with the understanding of previously mastered concepts, students work through exercises in the "Apply" step. Finally, the "Master" step further integrates the new information with previous understanding by posing problem situations that demand creative application of the full range of students' knowledge. This process creates a sense of ownership, resulting in students who are confident in their ability to tackle problems on their own.

PMI uses a proven approach to discovery learning modeled on the progression which has made Japan one of the top-ranked countries in mathematics.