Tokyo Shoseki’s Mathematics for Elementary School (Grade 1 to 6)

The most widely used elementary mathematics textbook series in Japan is now available in English!

Looking for a cohesive and coherent curriculum?

Wanting a mathematics curriculum that is not “a mile wide and an inch deep”?

Wanting to develop deep conceptual understanding of mathematics in your students?

Wanting to use children’s thinking in your lessons?

Trying to improve mathematics content knowledge for yourself or your teaching staff?

Seeking a resource for effective professional learning practices such as Lesson Study?

Learn how Japanese teachers develop deep mathematical understanding - for both themselves and their students!
A Look Inside

13 Do We Need to Add or Subtract?  

Grade 2

1 We have a box of oranges. We gave away 16 of them. Now we have 18 oranges. How many oranges did we have at first?

Let's figure it out using the diagram below.

Number of oranges we had at first: oranges

2 We gave away 16 of them.

Number of oranges we had at first: oranges

3 There are 18 oranges left.

Number of oranges we had at first: oranges

New mathematical concepts are introduced in the context of story problems.

Problem-Solving Approach

- Understanding the problem
- Solving the problem
- Summarizing the solution

Algorithms are introduced with diagrams and pictures to help students understand conceptually the calculation process.

2 The Division Algorithm (2)  

Grade 3

1 There are 256 origami papers. When you divide them among 4 people, how many papers does each one get?

Let's think about how to calculate!

Can you divide them among 4 people without using long division?

Loosen the bundles of 100 and make bundles of 10.

There are two 50's and five 10's → There are 250 + 50 = 300.

How to calculate 256 ÷ 4

2 = 4  
There is no numeral in hundreds place of the quotient.

6 = 4 + 6 + 1  
Write 6 in the tens place.

4 = 2  
Write 2 in the ones place.

256 ÷ 4 = 64  
Answer: 64 papers for each person
Representational models are used to help students understand the structure of the problem and to enable them to construct mathematical equations for solving problems.

Different solution methods are presented to help students understand multiple ways to solve problems while presenting opportunities for them to discuss their ideas.

Cartoon characters provide helpful hints as well as important thinking points students need to notice.
What research says

“American students and teachers are greatly disadvantaged by our country’s lack of a common, coherent curriculum and the texts, materials and training that match it”


The high performance of Japanese students in international mathematics assessments has been highlighted by the Third/Trends International Mathematics and Science Study (TIMSS) in 1995, 1999, and 2003. Explanations for their high performance have included student-centered, problem solving lessons, a focused and rigorous curriculum and textbooks, and teacher content knowledge, which have prompted some researchers to recommend the development of focused and coherent curricula for improving teachers’ content and pedagogical knowledge and student learning in the U.S.

Now, for the first time, U.S. teachers can finally see for themselves how Japanese teachers develop dynamic lessons and deep mathematical understanding with the English publication of the most widely used textbook in Japan, Tokyo Shoseki’s Mathematics for Elementary School (Grades 1 to 6)!

These textbooks:

• were written by Japanese mathematics educators, mathematicians, and accomplished Lesson Study practitioners
• introduce a limited number of topics each year
• go beyond procedural to conceptual understanding
• help teachers and students understand how lessons develop concepts within and across grade levels
• are useful as teacher resources for mathematical content and pedagogy, especially when studied as an entire set (grades 1 to 6) *

They are a must-have resource for:

• teachers and Lesson Study groups
• professional developers
• supervisors, coaches, and facilitators
• researchers and curriculum developers
• university professors and student teachers
• students and home schoolers
• after school and enrichment providers
• anyone interested in improving the teaching and learning of mathematics

“These books are a tremendous resource for teachers, no matter what curriculum you use, to enhance mathematical and pedagogical understanding and provide the U.S. mathematics Lesson Study communities with the same resources Japanese teachers have used for many years.”

Bill Jackson, Mathematics Facilitator, Paterson Public School No. 2

“In my more than 20 years of conducting Lesson Study, these mathematics textbooks have been the main resource my colleagues and I have used to develop focused student centered lessons. I am happy my American colleagues will now have access to this valuable recource.”

Akihiko Takahashi, Assistant Professor of Mathematics Education, DePaul University

Available in March 2006 from Global Education Resources

www.globaledresources.com

* best used in conjunction with Global Education Resources’ Elementary Teaching Guide for the Japanese Course of Study