Mathematics

A world-class program based on top-performing Singapore, Republic of Korea and Hong Kong

Scholastic Mathematics K is an innovative Mathematics program focused on the development of early numeracy and problem-solving skills, based on the effective teaching and learning practices of the global top-performers in Mathematics – Singapore, Republic of Korea and Hong Kong.

Scholastic Mathematics K is based on a pedagogical approach and instructional design that:

• Builds deep conceptual understanding as children progress from concrete to pictorial to abstract thinking using manipulatives, models, drawings and numbers.
• Develops metacognition and collaboration skills, with students encouraged to work together on activities and discover, explain and reflect on their understanding.
• Creates a problem-solving mindset through the application of concepts to age-appropriate real-world scenarios via a series of engaging Big Books and Readers.

Achieve success in early mathematics skills
Equip students with early mathematics skills for future success

**PRIME Mathematics K** is a full-curriculum kindergarten mathematics program based on the best practices of global top performers Singapore, Republic of Korea, and Hong Kong. The powerful approach and instructional design develop deep conceptual understanding and a problem solving mindset for a solid foundation in early mathematics concepts.

**Follow the Teacher’s Guides for easy and effective implementation**

The Teacher’s Guides provide consistent chapter structure, *daily routines*, detailed lesson plans, *hands-on activities*, and embedded *professional development* to enhance instruction and motivate learning.

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Each chapter includes:
- 3-5 lessons for learning new concepts
- A chapter workout and three learning center activities to assess understanding
- An optional *problem solving* lesson for practice with real-life scenarios
Each day’s teaching follows a two-part structure of concept introduction in Let’s Learn and guided practice and formative assessment in Let’s Do. Concepts are taught using the three-stage Concrete-Pictorial-Abstract approach to develop deep conceptual understanding.

### Learn and Do

#### Counting Groups of 11 to 15

Have students explore the numbers 11 to 15 using objects, actions and by writing the numbers. Give each pair a bag of 11 connecting cubes.

**Ask:** How many cubes are in your bag?

**Have students take out the cubes one by one and count together as a class.**

**Say:** Let’s count the cubes together. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

**Ask:** How many cubes are in your group or set? (11) A set of objects is another way to say a ‘group’ of objects.

**Say:** Let’s count the cubes again. After counting with students, ask the ‘How many?’ question.

**Write ‘11’ and ‘eleven’ on chart paper.**

**Ask:** How is 11 written? (E.g. two 1’s)

Explain that the number 11 begins with a ‘1’ and is written with two ‘1’s. Ask students if they see the number 11 anywhere in the classroom, e.g. on a clock or a calendar. Then, draw 11 dots next to the number to show the quantity represented. Repeat the procedure with the numbers 12–15.

Remind students that when writing 12, 13, 14 and 15, each number begins with the number 1 and that each number has two digits (e.g. 12 is written with 1 and 2 etc.).

Show students the Number-Dot Card ‘11’ (TR 8.2). Draw a 10-frame on chart paper. Fill the 10-frame with 10 dots and ask students how many dots are in the 10-frame. Draw the 11th dot next to the 10-frame. Have students recount the dots. Put a set of Number-Dot Cards ‘11–15’ (TR 8.2–TR 8.6) face down on the table. Give a Recording Sheet 11–15 (TR 8.7) to each student. Explain that after you choose a card and hold it up, students are to identify the number and find the row they should fill in, e.g. if you hold up Number-Dot Card ‘15’, students fill in the row for 15. Have students fill the 10-frame with dots and draw any remaining dots outside the 10-frame. Then, have students pair up to check each other’s drawings and counting work.

**Let’s Learn** SB p. 144

Have students count the following sets of objects together with you:

- the 11 cows
- the 12 windows on the clock tower
- the 13 trees
- the 14 wooden trains
- the 15 cars

**Let’s Do** SB p. 145

Task 1 provides practice for students to count sets of up to 15 objects. Students are required to write the corresponding numbers.

### Reteach

Have a student clap 11 times and ask the rest of the class to count along. When the student has finished clapping, ask the class how many times the student clapped. Repeat the above procedure with the numbers 12, 13, 14 and 15.

### Daily Wrap-Up

**Draw a circular arrangement of 13 dots on chart paper.**

**Ask:** How can we count this arrangement of dots?

Students might describe strategies such as marking the first dot counted with an X, crossing out each dot as it is counted and covering each dot as it is counted.
PRIME Mathematics K Problem Solving Kit

This enrichment program is designed to be used for a one-hour lesson after completing each chapter of the core program. Each problem solving lesson is based around a Big Book story that includes three problems framed in engaging real-life contexts.

Problem Solving Kit components include:

- Problem Solving Teacher’s Guide
- 20 Big Books
- 120 Readers (20 titles, 6 copies each of the same Big Book titles)

Learners follow the Cat Family on their daily routines and adventures, helping them to solve problems along the way.

Belle and King go scuba diving.
They dive into the sea.
There are fishes, seahorses, and starfish too.
How many do they see?

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ORDERING INFORMATION
Problem Solving Kit 978-1-338-28882-7 $700.00

The Problem Solving Teacher’s Guide provides scripted lesson notes on what to ask, what to say, and possible answers to questions (in pink).