

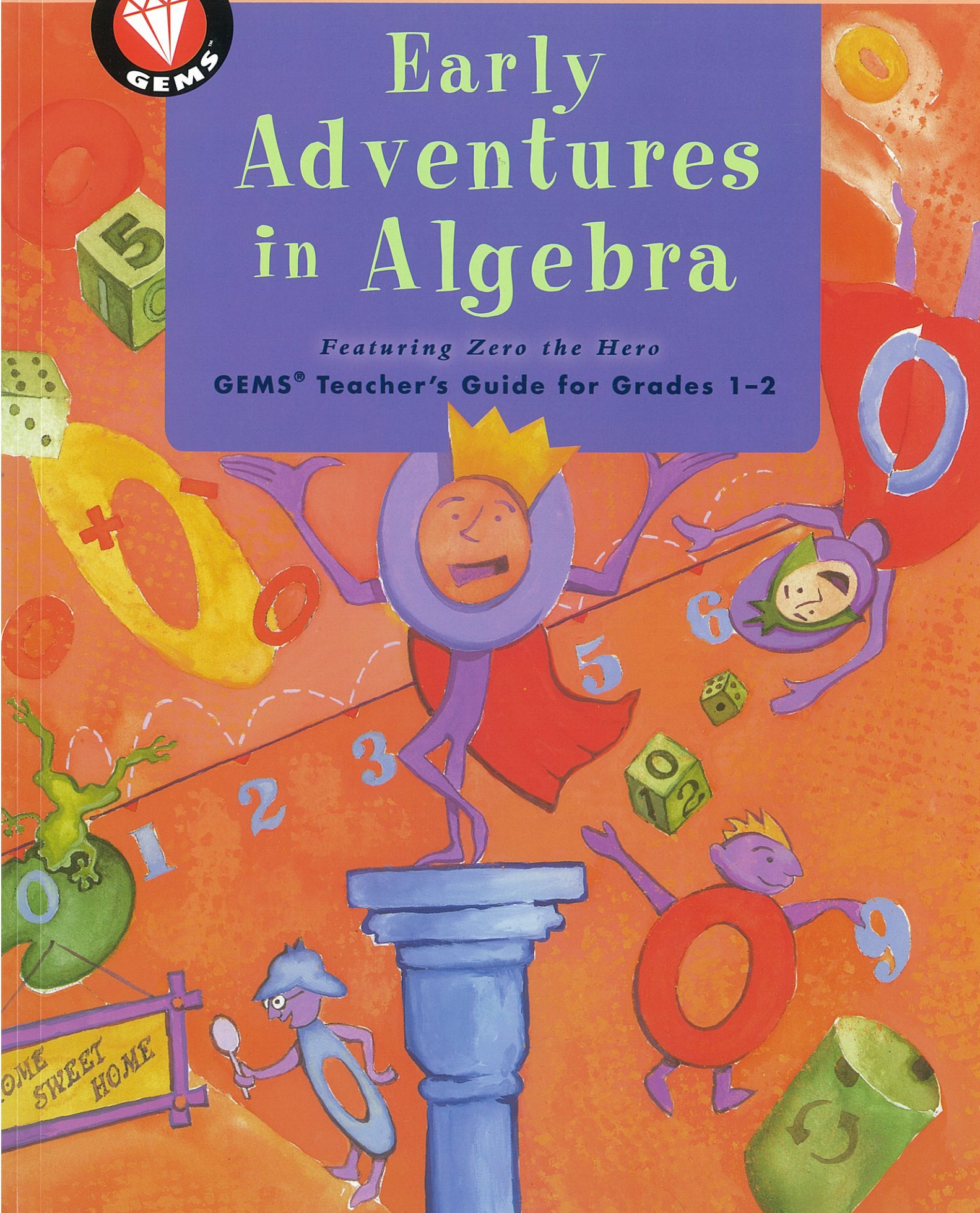


Lawrence Hall of Science • University of California at Berkeley

Early Adventures in Algebra

Featuring Zero the Hero

GEMS® Teacher's Guide for Grades 1-2



WHAT YOU NEED FOR THE WHOLE UNIT

The quantities listed below are based on a class size of 32 students. You may, of course, require different amounts for smaller or larger classes. This list gives you a concise “shopping list” for the entire unit. Please refer to the “What You Need” and “Getting Ready” sections for each individual activity, which contain more specific information about the materials needed for the class and for each student or student group.

Nonconsumables

- teacher read aloud: “Chapter 1: Zero Becomes Something” (page 19)
- teacher read aloud: “Chapter 2: Zero’s Family” (page 40)
- teacher read aloud: “Chapter 3: Zero’s Home” (page 59)
- teacher read aloud: “Chapter 4: Number Tricks” (page 76)
- teacher read aloud: “Chapter 5: One Last Trick Featuring Zero” (page 77)
- 32 small plastic frogs (or other animal or marker)
- 16 sets of base 10 materials*
- 16 bags or containers to hold the base 10 material
- 32 copies of the place value board (page 41 or 42)
- 32 standard dice
- 32 number lines
- (optional) counters
- (optional) 2 large standard dice (for teacher demonstration in Activity 2, Session 1)
- (optional) an overhead transparency of the **Into the Trash It Goes!** data sheet

* Sources for base 10 materials can be found in the “Resources” section on page 116.

Consumables

- 1 copy of the **Letter to Families** (page 18)
- 32 mathematics journals
- 16 blank $\frac{3}{4}$ inch cubes (for making 0–3 dice)
- 96 self-adhesive, $\frac{1}{2}$ -inch dots in two colors (48 of each color) to label cubes
- 16 copies of the **Zero, One, Two, Three: What Number Will It Be?** data sheet (page 20 or 21)
- 32 two-sided copies of the **Into the Trash It Goes!** data sheet (page 43 or 44)

- 32 two-sided copies of the **What's Missing?** mini-book template (pages 78–79)
- 32 two-sided copies of the **What's Missing? Find the Result** or **Find the Start** mini-book template (pages 80–81 or 82–83)

General Supplies

- several large sheets of chart paper, each about 24 in. x 36 in. (for class charts)
- markers
- masking tape
- transparent tape
- 1 permanent pen
- 32 scissors
- (*optional*) an overhead projector

