

Multiply By Hand

Grade 3

3 skill lessons · 2 math-through-reading

Skill lessons

3 lessons on the mathematics the book carries. Printable workbook pages and teacher keys are not available for this book yet.

1. Curl one finger, read two places

Representation · Reading a two-digit product off a finger arrangement

2. Two routes to forty-five

Fluency · Checking a product by adding equal groups

3. Nine more each time

Concept · Building the nine-times count as a running total

Math through the reading

The mathematics is reached through a sentence the book prints: change one word in the reading and the numbers change with it. These carry their own standards, matched against these lessons rather than inherited from the skill ones.

4. Eighteen or eighty-one: which side is the tens

Integrated · Students run the book's finger procedure, then read one unchanged pair of hands under the book's place sentence and under its reversal, producing two different products from the same fingers.

5. The counts the book left out

Integrated · The book poses five times nine and prints its answer but never gives the two finger counts its own procedure would produce; students establish them from the sentences that fix the numbering, then check the product two ways.

Reading and language lessons

5 lessons on the reading and language the book carries - what a word means in its sentence, how a character is shown, how a text is built. No mathematics: these are matched against the English language arts curricula, which are a different and smaller set than the mathematics ones.

6. Here's How: The Words That Hold a Set of Directions Together

Comprehension · Following the Words That Order a Procedure

7. You, Your, Our: How This Book Talks Straight at the Reader

Language · Noticing Who a Text Is Speaking To

8. Is Like, Is Really: Three Tries at the Same Explanation

Comprehension · Reading an Explanation Built on a Comparison

9. Handy, Pinky, Represent: What a Glossary Is Supposed to Do

Vocabulary · Reading a Glossary and Judging What It Gives You

10. Did You Know? Wouldn't It Be Great? Sorting the Author's Questions

Comprehension · Working Out What an Author's Question Is For