

Ball Game Math

Grade 4

5 skill lessons · 4 math-through-reading

Skill lessons

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

1. Four Equal Sides, One Perimeter

Application · Finding one side of a four-sided figure from its perimeter, then taking three quarters of a length

2. Ninety-Six Plays, Shared Twenty-Two Ways

Application · Multi-step whole-number problems: total a game's plays, share them equally, then subtract what is already done

3. Three Kinds of Shot, One Season Total

Application · Totalling a score from groups of different sizes: ones, twos and threes combined

4. Four Times as Large, and Only Half to Cover

Representation · Area of a rectangle, and a rectangle scaled by a whole-number factor

5. A Whole Year of Saturdays and Tuesdays

Application · Multi-step multiplication over a repeating weekly pattern, with a fixed amount added at the end

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.

6. The Word That Sets the Operation

Integrated · Students work the book's soccer field twice, once as its own sentence says it and once with four times as large replaced by four more square yards, and show that one phrase turns a 600-square-yard field into 2400 and the other turns it into 604.

7. The Number Sarah Needs and the Book Never Says

Integrated · The book tells Sarah the whole way round a softball diamond and that its four sides match, then asks how far apart to space her bases and never divides; students find the side the book withholds and prove from the book's own sentences that only one number can be right.

8. Where Should the Pitcher Stand?

Integrated · The book describes Sarah's meadow two different ways in two sentences, and the two descriptions put the pitcher in two different places; students compute both, take a side, and defend it from the book's own sentences.

9. Four Times Bigger, Eighteen Hundred More

Integrated · Two fields, one arrangement of squared paper, and two true sentences about the same pair of numbers: students build both areas and then say the relation twice, once as a scaling and once as an amount, and once in each direction.

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.

10. Not Again. Touchdown! How Each Section Grabs You First

Comprehension · Analysing How a Section Opens

11. A Stat Is a Number That: Definitions Built Into the Sentence

Vocabulary · Taking a Word's Meaning From the Sentence That Defines It

12. Down On the Team: What Survives When a Sentence Loses Its Subject

Comprehension · Deciding What a Damaged Sentence Can Still Tell You

13. What Beth Has to Decide: Following a Goal From Wish to Choice

Comprehension · Tracing a Person's Goal Through a Section

14. Pretend You're Playing: Where the Book Stops Telling and Starts Asking

Language · Noticing When a Text Turns and Speaks to You