What Is the Purpose of the Workbook?

For students
The Workbook supports students in their learning journey with independent or small-group practice opportunities for
• building on their understanding through a variety of questions, tasks, games, and challenges connecting foundational concepts;
• organizing and representing their thinking and understanding; and
• connecting math concepts to their lived experiences.

For teachers
The Workbook helps you support students by
• offering intentional independent and small-group practice ideas, aligned with your curriculum;
• providing additional assessment opportunities and ways to support learning; and
• allowing parents and caregivers an opportunity to see what their child is learning.

How To Use the Workbook
After working through lessons with students
• Identify the practice units that correlate with the lessons you’ve taught.
• Use the Workbook flexibly, as in-class practice (small-group, collaborative, or independent work).
• Discuss the practice tasks and ensure clarity.
• Identify the open-ended tasks and discuss ways for students to represent their understanding.
• Debrief the tasks and ask students to share their strategies.
• Observe students’ level of understanding and build on it through additional tasks.

Reaching All Learners (Differentiated Instruction)
Consider the variety of learners in your classroom and how the Workbook can best support them. Key questions to reflect on include:
• Are there certain questions that I want all students to complete?
• Do some students need accommodations?
• Which students might benefit from small-group conversations before starting tasks?
• How can I encourage the use of manipulatives and models (e.g., Math Mats, Base Ten Blocks)?
• How can students use the Workbook to recognize their strengths and build a math identity (e.g., self-reflection)?

Curriculum Support
Go to www.pearson.com/ca/en/k-12-education/mathology.html for a detailed alignment of this resource with your curriculum.
How Is the Workbook Organized?

Each unit connects the learning across several lessons.

**What I Know**
- activates prior knowledge of major concepts
- provides pre-assessment of students' understanding and knowledge
- helps you identify students who may need additional support

**Checking In**
- provides opportunities for students to apply their knowledge and understanding of concepts, make connections to math in the real world, reflect and discuss their thinking and strategies, and show what they know

**Bringing It Together**
- allows students to work together to discuss thinking and strategies
- helps students show what they know
- presents many open-ended tasks or games

**Connections prompts**
- enable students to create their own notes on connections made visible in the moment

**What I Learned**
- allows students to reflect on what they have learned and record their understanding
- prompts students to focus on the major understandings and concepts
- provides a snapshot of students' learning

**Connecting and Reflecting**
- connects the learning across a practice cluster with students' lived experiences

Sample student answers are included throughout the resource.
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**GAME: Rolling Ratios!**

Take turns to roll 2 number cubes to make a ratio. Create an equivalent ratio, then shade both new terms on the game board.

- If you can shade only one term, shade it.
- If you cannot shade either term, you lose your turn.

Continue until all the numbers have been shaded. The player with more numbers shaded wins!

Before being declared the winner, answer one of these skill-testing questions:

1. \(12 + 4 \times 2 = \) ..............
2. \(4 \times 3 - (2 + 1) = \) ..............
3. \(3 \times (20 + 30) + 20 ÷ 5 = \) ..............
4. \((6 + 3)^2 + 18 ÷ 2 = \) ..............

**What I Learned**

How do you use fractions when working with ratios and rates? Use questions 5 and 9 to help explain.
Bringing It Together

GAME: Rolling Ratios!

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Before being declared the winner, answer one of these skill-testing questions:

12 + 4 × 2 = \[ \text{20} \] 
4 × 3 – (2 + 1) = \[ \text{9} \] 
3 × (20 + 30) + 20 ÷ 5 = \[ \text{154} \] 
(6 + 3)\(^2\) + 18 + 2 = \[ \text{90} \]

What I Learned

How do you use fractions when working with ratios and rates? Use questions 5 and 9 to help explain.

For example: In question 9, the ratio of cats to animals, 3:7, is a part-to-whole ratio. I can write this as \( \frac{3}{7} \), where 3 represents the part (cats) and 7 the whole (all animals). In question 5, I can write a rate as a fraction, then simplify it until the denominator is 1. For example: \( \frac{120 \text{ km}}{2 \text{ h}} = \frac{60 \text{ km}}{1 \text{ h}} \).