

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.

Go to [Mathology.ca](https://mathology.ca) for comprehensive lesson notes supporting a deep understanding of student thinking and assessment opportunities that help determine the best next steps for your learners.

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.

Unit 14 Data Management

What I Know
Write three things you know from this pictograph.

Types of Shoes Worn by Grade 3 Students

Shoe Type	Number of Students
Velcro®	
Laces	
Slip-on	
Zipper	

1 shoe icon = 1 student

For example: More students have shoes with laces than any other type of shoe. 10 students were surveyed. 3 more students have laces than have Velcro®.

Checking In
Interpreting Graphs
1 List three things you know from this bar graph.

What Grade 3 Students Do Before Bed

Activity	Number of Students
Read	9
Watch TV	6
Have a Snack	3
Listen to Music	2
Have a Bath	1

For example: More students (9) read before going to bed than any other activity. A total of 30 Grade 3 students were surveyed. The same number of students watch TV as have a snack (6).

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

Connections prompts

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

Bringing It Together

11 GAME: Roll to the Finish!
Take turns to roll a number cube. Choose and answer a question in the matching row. If your answer is correct, shade the space. The first player to shade a complete row wins!

	$5 \times 1 =$	$2 \times 1 =$	$1 \times 4 =$	$10 \div 3 =$	$5 \times 4 =$
	$2 \times 2 =$	$10 \div 5 =$	$3 \times 2 =$	$20 \div 4 =$	$5 \times 5 =$
	$3 \times 4 =$	$12 \div 3 =$	$4 \times 5 =$	$12 \div 4 =$	$4 \times 6 =$
	$5 \times 3 =$	$16 \div 4 =$	$5 \times 2 =$	$15 \div 3 =$	$5 \times 6 =$
	$8 \times 5 =$	$72 \div 9 =$	$9 \times 9 =$	$42 \div 6 =$	$7 \times 5 =$
	$6 \times 6 =$	$54 \div 6 =$	$7 \times 8 =$	$45 \div 9 =$	$9 \times 7 =$

Play again! Go to page 111 to create your own game board.

What I Learned
Use a model to show how multiplication and division are related.
For example: When I make an array with 12 counters, I see $3 \times 4 = 12$ and $12 \div 4 = 3$. When I turn the array, I also see that $4 \times 3 = 12$ and $12 \div 3 = 4$.

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

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: Multiplication and Division

Explore your kitchen for treasures that relate to multiplication and division, and area, mass, and capacity!

What did you find?
Choose one item from your list and show how it relates to the math.

For example: I found

- measuring cups
- measuring spoons
- a scale
- pots
- baking pans
- a recipe book
- containers of different ingredients marked with L and kg
- a carton of eggs

The carton of eggs relates to multiplication as there were 2 rows of 6 eggs for a total of 12 eggs: $2 \times 6 = 12$.

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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Bringing It Together

11 GAME: Closer to 50!

Use a deck of cards with the face cards and jokers removed.

Each of you take 4 cards.

Use the numbers on the cards to make two 2-digit numbers with a difference as close to 50 as possible.

Subtract the numbers.

The player closer to 50 gets 1 point.

Continue until one of you gets 5 points.



If you get a difference of 50, score 2 points!

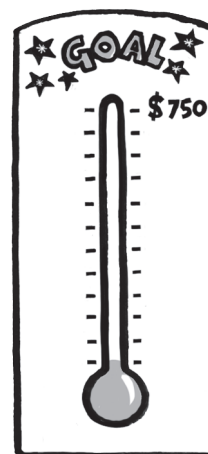
Play again! This time take 6 cards and make 3-digit numbers!

12 A school raised money for a charity.

The first week, they raised \$328.

The second week, they raised \$213.

How much do the students need to raise in the third week to reach their goal?



What I Learned

Which models do you use to help you solve addition and subtraction problems?

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RULE

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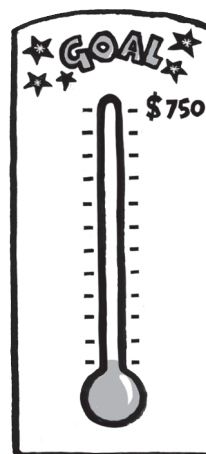
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How much do the students need to raise in the third week to reach their goal?

$$\begin{aligned}\text{For example: } 328 + 213 &= 300 + 200 + 20 + 10 + 8 + 3 \\ &= 500 + 30 + 11 \\ &= 541\end{aligned}$$

$$750 - 541 = 209$$

They still need to raise \$209.



What I Learned

Which models do you use to help you solve addition and subtraction problems?

For example: I like to use number lines because I can take jumps to add and subtract and see all the numbers at the same time.