

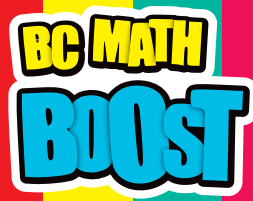
**SAMPLE  
MATERIAL  
INSIDE**

**BC**



**MATH**

**BOOST**

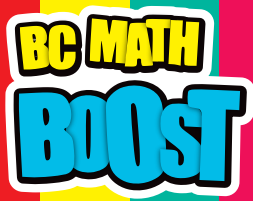


# About BC Math Boost

BC Math Boost are supplemental materials that support your current math resources and ensure complete coverage of the redesigned BC mathematics curriculum. Students will continue to learn and develop Core and Curricular Competencies in mathematics through new, customized lessons developed to fill the gaps in existing resources. Nelson developed these materials to ensure seamless integration by providing teachers with detailed direction and guidance on to how use BC Math Boost in combination with current resources, lessons, and classroom teaching plans.

### Key Features

- Includes all the lessons, masters, and teaching notes you need to fill the gaps in your current math resources
- Includes a *Summary Chart* showing where these new lessons fit with current math resources and what lessons from current resources can be omitted
- Identifies the *Learning Standards* addressed for each lesson, including the Curricular Competencies and Content
- Financial literacy and First Peoples perspectives and knowledge are embedded throughout the series



# Resource Component Overview

### For Students

Kindergarten–Grade 2	Grades 3–7
<b>Activity Blackline Masters</b> <ul style="list-style-type: none"><li>■ Activity Blackline Masters included in the Teacher’s Resource</li></ul>	<b>Student Resource</b> <ul style="list-style-type: none"><li>■ 1 Student Resource per grade</li><li>■ Each lesson includes worked examples and solutions; as well as reflecting, checking, and practising questions</li></ul>

### For Teachers

Kindergarten–Grade 2	Grades 3–7
<b>Teacher’s Resource</b> <ul style="list-style-type: none"><li>■ Summary Charts:<ul style="list-style-type: none"><li>○ <i>Summary Charts</i> show where BC Math Boost lessons integrate with <i>Math Focus</i> and <i>Math Makes Sense</i><ul style="list-style-type: none"><li>– Identifies where new lessons fit</li><li>– Identifies when an existing lesson can be omitted</li><li>– Identifies Core Competencies, Curricular Competencies, and Content <i>Learning Standards</i> addressed by each chapter and lesson</li></ul></li></ul></li><li>■ Assessment includes <i>What to Look For</i> and <i>What to Do</i> charts with each lesson</li></ul> <b>Online Teacher’s Resource</b> <ul style="list-style-type: none"><li>■ Online access to the Teacher’s Resource and Activity Blackline Masters</li><li>■ <i>Summary Charts</i> correlate to <i>Nelson Math Focus</i> and <i>Math Makes Sense</i></li><li>■ Math activities related to First Peoples Principles of Learning, including background information</li></ul>	<b>Teacher’s Resource</b> <ul style="list-style-type: none"><li>■ Summary Charts:<ul style="list-style-type: none"><li>○ <i>Summary Charts</i> show where BC Math Boost lessons integrate with <i>Math Focus</i> and <i>Math Makes Sense</i><ul style="list-style-type: none"><li>– Identifies where new lessons fit</li><li>– Identifies when an existing lesson can be omitted</li><li>– Identifies Core Competencies, Curricular Competencies, and Content <i>Learning Standards</i> addressed by each chapter and lesson</li></ul></li></ul></li><li>■ <i>Assessment for Learning</i> chart includes misconceptions and differentiated instruction suggestions</li><li>■ <i>Preparation and Planning</i> charts and <i>Math Background</i></li></ul> <b>Online Teacher’s Resource</b> <ul style="list-style-type: none"><li>■ Online access to the Teacher’s Resource and Student Module for Grades 3–7</li><li>■ <i>Summary Charts</i> correlate to <i>Nelson Math Focus</i> and <i>Math Makes Sense</i></li><li>■ Math activities related to First Peoples Principles of Learning, including background information</li></ul>

# Teacher's Resource

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Sample Lesson included in this sampler

Sample Math Tools included in this sampler

# Teacher's Resource

## Summary Chart

### Chapter 4: Length and Capacity

#### Summary Chart for Using *Math Boost 1* and *Math Focus 1*

##### Core Competencies Focus

▲ Students have opportunities for **communication** as they work with classmates to measure and estimate, and to make their own measuring tools. Sharing their thinking as they **collaborate to plan, carry out, and review constructions and activities** helps students learn to work together toward a common goal.

▲ Students work toward their own **personal awareness and responsibility** when they use measurements they know to help them estimate and then measure and compare their estimates with the measurements. The **self-determination** involved in continuing to estimate and revise their estimates helps them gain confidence in their thinking and have the confidence to make changes based on more information.

● **Big Idea:** Objects and shapes have attributes that can be described, measured, and compared.

Resources	Learning Standards
<i>Math Focus 1</i> <i>Math Boost 1</i>	Curricular Competencies Focus Content
<b>Jump In:</b> Measurement Party, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 10–11	<b>Communicating and representing:</b> Explain and justify mathematical ideas and decisions
<b>4.1:</b> Comparing Attributes, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 12–13	<b>Connecting and reflecting:</b> Connect mathematical concepts to each other and to other areas and personal interests
<b>4.2:</b> Comparing Heights, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 14–15	<ul style="list-style-type: none"> <li>• direct measurement with non-standard units (non-uniform and uniform)</li> <li>This lesson does not address the British Columbia Grade 1 Learning Standards Content.</li> </ul>
<b>4.3:</b> Comparing Lengths, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 16–17	This lesson does not address the British Columbia Grade 1 Learning Standards Content.
<b>4.4:</b> Measuring Around Objects, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 18–19	This lesson does not address the British Columbia Grade 1 Learning Standards Content.
<b>4.5:</b> Ordering Objects by Length, <i>Math Focus Teacher's Resource</i> , Chapter 4, pages 20–21	This lesson does not address the British Columbia Grade 1 Learning Standards Content.
<b>Lesson C:</b> Measuring Length Using Non-Uniform Units, <i>Math Boost Teacher's Resource</i> , pages 26–27	<ul style="list-style-type: none"> <li>• direct measurement with non-standard units (non-uniform and uniform)</li> </ul>
<b>Lesson D:</b> Measuring Length Using Uniform Non-Standard Units, <i>Math Boost Teacher's Resource</i> , pages 28–29	<ul style="list-style-type: none"> <li>• direct measurement with non-standard units (non-uniform and uniform)</li> <li>Recognizing animal tracks helped First Peoples find food and protect themselves from predators.</li> </ul>
<b>Lesson E:</b> Making a Measuring Tool, <i>Math Boost Teacher's Resource</i> , pages 30–31	<ul style="list-style-type: none"> <li>• direct measurement with non-standard units (non-uniform and uniform)</li> <li>To connect this lesson with First Peoples studies, bring in children's books that were written or illustrated by First Peoples authors or artists, or have First Peoples themes.</li> </ul>
<b>Lesson F:</b> Comparing Heights Using Non-Standard Units, <i>Math Boost Teacher's Resource</i> , pages 32–33	<ul style="list-style-type: none"> <li>• direct measurement with non-standard units (non-uniform and uniform)</li> <li>Hand shadows have a rich history. In many First Peoples cultures, they were a common fireside pastime, teaching children dexterity, perspective, and recognition of animal silhouettes, which were all skills required for hunting.</li> </ul>

Summary Charts show how *BC Math Boost* lessons can be integrated with existing resources to ensure 100% alignment to the new BC curriculum

Identifies Core Competencies, Big Ideas, Curricular Competencies, and Content *Learning Standards*

Identifies when to use lessons from existing resources and when to use *BC Math Boost* lessons

Identifies lessons in existing resources that no longer address *Learning Standards* and can be omitted

# Teacher's Resource

## Lesson L: Needs and Wants

Identifies the *Learning Standards* addressed for each lesson, including the Curricular Competencies and Content

Financial literacy focus

Lessons follow a 3-part lesson style: *Getting Started, Working On It, Reflect and Connect*

### Needs and Wants

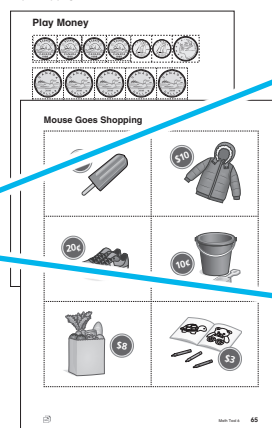
#### Math Note

In this lesson, students hone their financial literacy skills by discussing needs and wants. They role-play the purchases of a fictional mouse character, developing their number sense for numbers up to 20.

#### Teaching Tip

Encourage students to connect their needs and wants to the place they live and their lifestyle. For example, if you live in a cold place, you will need different clothing than if you live in a hot place.

Math Tool 5



Math Tool 6



#### Learning Goal

Identify the difference between needs and wants, and use coins.

#### Curricular Competencies

**Understanding and solving:** Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving

- I can make decisions about needs and wants when I role-play buying things.

**Connecting and reflecting:** Connect mathematical concepts to each other and to other areas and personal interests

- I can tell if something I want to buy is a need or a want.

#### Content

- financial literacy—values of coins and monetary exchanges
- number concepts to 20

#### Materials

Math Tool 6: Mouse Goes Shopping  
play money coins (nickels, dimes, loonies, toonies)  
or Math Tool 5: Play Money  
overhead projector or document camera (optional)

### GETTING STARTED

5–10 min

Begin by telling a make-believe story about a little mouse who lives in a little house. **Mouse needs a bed to sleep in. What are other things Mouse might need to live in the house?** (e.g., furniture, clothing, food, water) **Mouse wants a skipping rope to jump with. What are other things Mouse might want but not really need?** (e.g., toys, books, picture frames) **What is the difference between a want and a need?** Invite students to share their ideas with a partner before discussing as a class.

### WORKING ON IT

15–20 min

Invite students to suggest more things Mouse might want or need. Provide ideas by asking questions: **Does Mouse need a basketball hoop? What about a pair of shoes?** Encourage different ideas, and invite students to share their reasons for their ideas. Many ideas may be reasonable. **Pretend Mouse is learning how to skate. Are skates a need? How can Mouse decide what to buy when shopping?**

Provide students with play money. Display Math Tool 6, or provide copies to pairs of students. Tell students they will be role-playing Mouse going shopping. As a demonstration, invite volunteers to choose items from Math Tool 6 to buy from you, using their play money.

# Teacher's Resource

## Lesson L: Needs and Wants

I think the winter coat is a need. Mouse needs a coat during winter.

The coat costs \$10. I can pay for it with toonies: 2, 4, 6...

To encourage skip counting, tell students they must use the same kind of coin for each purchase. As students make their purchases, ask them to explain if each item is a want or a need, and why.

After the demonstration, have students break into pairs to continue the role-play. One student can show the number of coins needed to buy an item, and the other student can check. Ask questions to prompt **communication**—**How do you know the [popsicle] is a want? How do you know the [winter coat] is a need?** If students run out of items to buy on Math Tool 6, they can think of their own items.

Highlighted words focus on curricular competencies addressed in the lesson

Assessment: *What to Look For* and *What to Do* charts with each lesson

Provides further activities for students who have completed their work

#### Opportunities for Feedback

##### What to Look For

- Watch and listen for indications that students can
  - distinguish between needs and wants, and explain why needs come before wants (**Why did you say the [food] was a need? Why did you say the [colouring book] was a want? Why must people make sure they have enough money for the things they need before they buy the things they want?**)
  - count multiples of the same denomination (**The [food] costs \$8. What coins can you use to pay for it? Can you think of other coins you could use? Here are some [toonies]. Do I have enough toonies to pay for a [winter coat] that costs [\$10]?**)

##### What to Do

- Observe students as they classify needs and wants and explain their thinking. Students may struggle with needs and wants overlapping. For example, food is a need, but expensive restaurant food is a want.
- Use a document camera or coin transparencies on an overhead projector to provide practice with coin counting. Students can say the total as you add each new coin.

#### "I'm finished ..."

Students could think about their own needs and wants. Have them draw a picture of one thing they need and one thing they want but do not really need.

### REFLECT AND CONNECT

15–20 min

Invite some of the pairs to share with the class their reasoning about the items they bought for Mouse.

- How did you decide that [shoes] are a need?**
- How did you decide that [a pail and a shovel] are a want?**
- Imagine Mouse wants a [baseball glove]. Can you think of a time when a [baseball glove] might be a need?**

Connect the lesson to students' lives by leading the discussion toward their own needs and wants. **What are some things you want but don't need? What are some things you need?**

#### Keep Going

Students can draw something Mouse needs on one side of a piece of paper and something Mouse wants on the other side. Pairs or small groups can share and discuss their drawings.

# Teacher's Resource

## Math Tool 5: Play Money

### Play Money



Math Tools support a hands-on approach to learning

# Teacher's Resource

## Math Tool 6: Mouse Goes Shopping

### Play Money







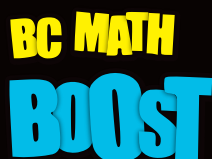
## Notes

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## Notes

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# Order Information



Kindergarten		
<b>Classroom Set</b> (Includes Teacher's Resource and Activity Blackline Masters)	9780176775100	
Grade 1		
<b>Classroom Set</b> (Includes Teacher's Resource and Activity Blackline Masters)	9780176775155	
Grade 2		
<b>Classroom Set</b> (Includes Teacher's Resource and Activity Blackline Masters)	9780176775056	
Grade 3		
<b>Classroom Set</b> (Includes Teacher's Resource and 25 copies of the Student Resource)	9780176775414	
Teacher's Resource	9780176775339	
Student Resource (15-Pack)	9780176799670	
Grade 4		
<b>Classroom Set</b> (Includes Teacher's Resource and 25 copies of the Student Resource)	9780176775001	
Teacher's Resource	9780176775360	
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Student Resource (15-Pack)	9780176799694	
Grade 6		
<b>Classroom Set</b> (Includes Teacher's Resource and 25 copies of the Student Resource)	9780176799571	
Teacher's Resource	9780176799533	
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Grade 7		
<b>Classroom Set</b> (Includes Teacher's Resource and 25 copies of the Student Resource)	9780176799663	
Teacher's Resource	9780176799625	
Student Resource (15-Pack)	9780176799656	

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