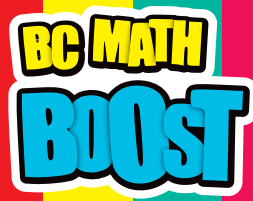


**SAMPLE
MATERIAL
INSIDE**

BC MATH

BOOST

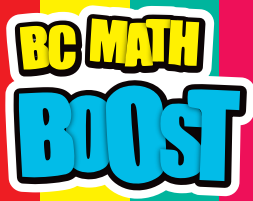


About BC Math Boost

BC Math Boost K–7 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 new 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 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
Activity Blackline Masters <ul style="list-style-type: none">■ Activity Blackline Masters included in the Teacher’s Resource	Student Resource <ul style="list-style-type: none">■ 1 Student Resource per grade■ Each lesson includes worked examples and solutions; as well as reflecting, checking, and practising questions

For Teachers

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

Teacher's Resource

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Sample Lesson included in this sampler

Teacher's Resource

Summary Chart

Chapter 10: Dividing Multi-Digit Numbers

Summary Chart for Using *Math Boost 4* and *Math Focus 4*

Core Competencies

- ▲ Students gain **communication** experience as they represent and solve problems that involve dividing 3-digit numbers by 1-digit numbers using concrete materials, drawings, and numbers. They use pictures and number sentences, as well as oral and written descriptions, to **explain/reconstruct** and **reflect on experiences and accomplishments**.
- ▲ Students develop their **critical thinking** skills as they use basic multiplication and division facts to help them estimate quotients of 2-digit and 3-digit numbers. They learn to solve a problem using the strategy started in an example and then **analyze and critique** this strategy as they identify other ways to estimate the same quotient and think about how to apply these strategies in new situations.
- ▲ Students develop a **positive personal and cultural identity** as they solve problems in contexts that may relate to their own life, such as participating in walk-a-thons, sharing objects equally among groups, catching fish with a fish wheel, collecting food for a food bank, and picking berries. These connections help students appreciate how we use numbers in our lives and how mathematics can be part of **relationships and cultural contexts**.
- **Big Idea:** Development of computational fluency and multiplicative thinking requires analysis of patterns and relations in multiplication and division.

Resources	Learning Standards	
	Curricular Competencies Focus	Content
Chapter Opener: <i>Math Focus</i> Student Book, pages 346–347, <i>Math Focus</i> Teacher's Resource, Chapter 10, page 8	Reasoning and analyzing: mathematics in contextualized experiences	
Getting Started: Planning a Play Day, <i>Math Focus</i> Student Book, pages 348–349, <i>Math Focus</i> Teacher's Resource, Chapter 10, pages 9–11	Communicating and representing: Use mathematical vocabulary and language to contribute to mathematical discussions	
10.1: Exploring Division, <i>Math Focus</i> Student Book, page 350, <i>Math Focus</i> Teacher's Resource, Chapter 10, pages 12–14	Understanding and solving: Develop, demonstrate, and apply mathematical understanding through play, inquiry, and problem solving	• multiplication and division facts to 100 (introductory computational strategies)
10.2: Relating Division to Multiplication, <i>Math Focus</i> Student Book, page 351, <i>Math Focus</i> Teacher's Resource, Chapter 10, pages 15–17	Connecting and reflecting: Connect mathematical concepts to each other and to other areas and personal interests	• multiplication and division facts to 100 (introductory computational strategies)
10.3: Using Subtraction to Divide, <i>Math Focus</i> Student Book, pages 352–355, <i>Math Focus</i> Teacher's Resource, Chapter 10, pages 18–21		This lesson does not address the British Columbia Grade 4 Learning Standards Content because the division involves remainders.
10.4: Dividing by Renaming, <i>Math Focus</i> Student Book, pages 356–357, <i>Math Focus</i> Teacher's Resource, Chapter 10, pages 22–24		This lesson does not address the British Columbia Grade 4 Learning Standards Content because the division involves remainders.
Lesson R: Using Subtraction to Divide, <i>Math Boost</i> Student Resource, pages 56–59, <i>Math Boost</i> Teacher's Resource, pages 95–98	Understanding and solving: Develop and use multiple strategies to engage in problem solving	• multiplication and division of two- or three-digit numbers by one-digit numbers

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 N: Making Decisions about Money

Financial literacy focus

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

Math Background provides background information on the topic to support teachers

Preparation and Planning charts provide an at-a-glance overview of the lesson for teachers

Lesson N Making Decisions about Money

RESOURCE BOOK PAGES 44–47

LEARNING GOAL

Make decisions about earning, saving, spending, and giving.

PREREQUISITE SKILLS/CONCEPTS

- Add and subtract money amounts.
- Be familiar with the terms *need* and *want*.

LEARNING STANDARDS

Curricular Competencies

Reasoning and analyzing: Use reasoning to explore and make connections

- I can give reasons why something is a want or a need.

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

- I can solve a problem about money

Communicating and representing: Communicate mathematical thinking in many ways

- I can explain or show how I solved a problem about money

Reasoning and analyzing: Model mathematics in contextualized experiences

- I can make a plan to save money.

Content

- addition and subtraction of decimals to hundredths
- financial literacy—monetary calculations, including making change with amounts to 100 dollars and making simple financial decisions

Math Background

In this lesson, students **solve problems** about earning, spending, saving, and giving money, while distinguishing between wants and needs. As students **communicate** about spending decisions, they can think about how these decisions **connect** to their lives, how they can prioritize their own spending, and how they can calculate a budget to save for a purchase.

Preparation and Planning

Pacing	5–10 min Introduction 20–25 min Teaching and Learning 20–25 min Consolidation
Materials	<ul style="list-style-type: none"> information source for charities, such as Internet access, newspapers, or flyers Optional: advertisements
Recommended Practising Questions	2, 3, 4, 7
Key Question	2

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Teacher's Resource

Lesson N: Making Decisions about Money

Lesson N Making Decisions about Money

LEARNING GOAL
Make decisions about earning, saving, spending, and giving.

Aneela gets an allowance of \$5 every week for doing chores. She is saving to buy one of these items. Her parents said they would pay the tax.

How can Aneela decide what to buy? How much money will she need to save?

Aneela's Plan

I'll organize the items in a needs and wants list.

Needs	Wants
ski goggles	I need them for a snowboarding trip in 8 weeks.
MP3 player	My old MP3 player still works.
boots	My boots still fit, so I don't need new boots yet.

I'll save for the ski goggles.

Reflecting

A. How much money does Aneela need to save for the ski goggles?

B. For how long does she need to save?

C. What is the difference between a need and a want?

D. Suppose Aneela decided to donate \$10 to the local food bank. How long would it take her to save for the goggles and donation?

E. Suppose Aneela's old boots no longer fit. Would this affect her decision about what to buy? Explain.

Community FOOD Bank
END HUNGER

1 Introduction (Whole Class) ▶ 5–10 min

Engage the class in a discussion about the difference between needs and wants. Ask questions to encourage connections to the students' lives outside school.

Sample Discourse

- "What is a need?"
- Something a person has to have.
 - "What is a want?"
 - Something a person would like to have but doesn't really need.
- "What is an example of something you need?"
- I need food and water to stay alive.
 - I need clothes to wear to school.
- "What is an example of something you want?"
- I want a new video game.
 - I want to go to Florida.

2 Teaching and Learning (Whole Class/Pairs) ▶ 20–25 min

Together, read about Aneela's choices on Student Resource page 44. Read the central question. Then give students time to read Aneela's Plan before discussing it with the whole class. Have students work with a partner to complete Prompts A and B. Ask questions to encourage communication about the problem.

Sample Discourse

- "Why do you think Aneela decided to save for the ski goggles?"
- She needs the ski goggles for her trip. She doesn't need the other things right away.
 - How did Aneela save the money?
 - She saved her \$5 allowance every week.
 - How did you figure out the length of time it took Aneela to save \$28.95?
 - \$28.95 is between \$25 and \$30. I know $5 \times \$5 = \25 she will have almost enough in 5 weeks. $\$25 + \$5 = \$30$, so she will have enough in 6 weeks.
 - I made a table. She had \$5 in Week 1, in Week 2, and so on. She had \$30 in Week 6.

Answers to Prompts

- A. Aneela needs to save \$28.95 for the ski goggles.
- B. For example, I made a table to show Aneela's savings. She will need to save for 6 weeks.

Week	1	2	3	4	5	6
Savings	\$5	\$10	\$15	\$20	\$25	\$30

Reflecting (Whole Class)

Students **reflect** on the distinction between needs and wants, and how something that is a need in one situation might be a want in a different situation.

Includes discussion questions with possible answers

Includes suggested answers to prompting questions in the Student Resource

Lessons follow a 3-part lesson style: *Introduction, Teaching and Learning, Consolidation*

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NEL

Teacher's Resource

Lesson N: Making Decisions about Money

Checking

1. Sanjay has saved \$80. He made a list of the ways he might spend the money.

birthday present for sister
new video game for \$39.65, including tax
donation to food bank

a) How might Sanjay list his wants and needs?
b) Suppose Sanjay bought the game. How much money would he have left for the present and the donation?
c) How would you use the remaining money for the present and the donation?

Practising

2. Francine gets \$50 each month for delivering flyers in her First Nations community. She clipped the prices of items she would like to buy, including tax.

Headphones \$77.95
Skateboard \$84.35
Dance Vest \$18.50

Francine is starting dance lessons in 2 months.

a) How might Francine list her wants and needs?
b) What should she buy?
c) How long will it take her to save for this item?

3. Bruce gets \$15 each week for walking his neighbour's dog twice a day. He wants to buy a remote control plane for \$92.95, including tax.

a) How long will it take him to save for the plane?
b) Suppose Bruce donates \$3 each week to an animal shelter. How much longer will it take him to save for the plane?

4. Research a charity you might donate to. How much money might you donate? Explain why you chose that charity.

5. Ricardo has \$80 saved to buy one of these items. Hockey season is starting in 2 months. Ricardo has outgrown his old skates.

Sneakers \$79.99 tax included
Helicopter \$38.65 tax included
Scooter \$56.50 tax included

a) What should Ricardo buy? Why?
b) Skates Abound sells similar second-hand skates for \$49.95, tax included. How much will Ricardo save if he buys skates from Skates Abound?
c) Skates Abound offers \$10 off if you trade in your old skates. Suppose Ricardo trades in his skates. Will he have enough money left over to buy another of the items? Which?

6. Yolanda wants to buy a science kit for \$37.90, including tax.

I earned \$10 washing and vacuuming the car. I'll earn \$14 checking on my uncle's cats this weekend.

a) How much money will Yolanda have after this weekend? Will she be able to buy the science kit?
b) Yolanda's sister Shanice also wants a science kit. She has saved \$20. How could the sisters buy the kit?

7. Think of 4 items you would like to buy.

a) Research the prices of these items in flyers or online. Ignore the tax.
b) Organize the items in a needs and wants list.
c) Which item would you save for? Explain why.

Suggested answers to Reflecting Questions, Key Question, and Closing Questions are provided

Answers to Reflecting Questions

- C. For example, a need is something you must have, like food and clothes. A want is something you want but you can do without, like an MP3 player.
- For example, she would need to save $\$38.95 + \$10.00 = \$38.95$. I extended my table. Ancestral need 2 more weeks, or 8 weeks in total.
- E. For example, If her boots don't fit she needs new ones. So the boots become a need instead of a want.

3 Consolidation 25 min

Checking (Pairs)

Some students may suggest that a food bank donation, which fills a need for hungry families, is a need, while a birthday present, which fills a want for Sanjay's sister, is a want.

Practising (Individual)

4. Provide Internet access for research and suggest some websites to visit, or provide pamphlets from several charities. (Students may also use their general knowledge to choose a charity.) As a class, you might start a fundraising project to support a charity the students researched. Some students may want to research charities run by First Peoples groups.

Answers to Key Question

2. a) For example, Francine needs the dance vest because she is starting dance lessons in 2 months. The headphones might be a need if her old ones are broken, but they could just be a want. The skateboard is a want.
- b) Francine should buy the dance vest.
- c) For example, $\$50 + \$50 = \$100$
- Francine will earn enough money to buy the dance vest in 2 months.

Closing (Whole Class)

Question 7 connects the lesson concepts to students' personal goals. Provide Internet access or advertisements from stores where students might shop.

Answers to Closing Question

7. a) For example, a game for my phone for \$4.95, a ukulele for \$99.00, new sneakers for \$54.67, a new toque for \$12.35
- b) For example, wants: game, ukulele needs: sneakers, toque
- c) For example, it's winter, so I need the toque now because I lost my old one. I would save for the toque first. My old sneakers can last until I've saved for new sneakers.

Teacher's Resource

Lesson N: Making Decisions about Money

Opportunities for Feedback: Assessment for Learning

What you will see students doing

When students understand

- Students distinguish between wants and needs and give reasons for their choices.
- Students add and subtract amounts of money to solve problems and can explain what they did.

Key Question 2

- Students identify the dance vest as a need for dance lessons and calculate that it will take 2 months to save for it.

If students misunderstand

- Students may have difficulty explaining whether something is a want or a need. (See Extra Support 1.)
- Students may not know how to proceed to solve a problem, or they may make calculation errors. (See Extra Support 2.)
- Students may not recognize that Francine needs the vest for dance lessons, or they may have difficulty calculating the saving time because they do not relate \$96.25 to \$100. (See Extra Support 1 and 2.)

Curricular Competencies

When students understand

- Students use words, numbers, and tables to explain the reasoning behind their solutions.
- Students explain how they can plan to save for something in everyday life.

If students misunderstand

- Students may be able to get the correct answers, but they may not be able to explain their reasoning. (See Extra Support 1 and 2.)
- Students may not connect what they are learning to real-life spending. Use Questions 4 and 7 to connect to students' giving and spending.

Differentiating Instruction: How you can respond

EXTRA SUPPORT

- Invite students to describe or role-play shopping situations in which someone has to choose among 2 wants and 1 need. Ask how they decided which item was the need. Emphasize that a need is something a person has to have, while a want is something the person might like to have but does not really need.
- Create a class list of strategies students can use to solve problems about saving money (using repeated addition, skip counting on a 100 chart or number line, making a table). Provide practice with situations in which the amount to save is not a multiple, such as "Taya needs to save \$42. She earns \$10 every week. How long will it take her to save?"

EXTRA CHALLENGE

- Challenge students to create a role-play about a fictional character who has to make a buying decision. Ask students to include the price of the item the character will choose and a realistic plan for saving the money.

Assessment for Learning chart includes misconceptions and differentiated instruction suggestions

Student Resource

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Credits		86



Sample Lesson
included in this
sampler

NEL

v

Student Resource

Lesson N: Making Decisions about Money

Lesson N

Making Decisions about Money

You will need

- information source for charities, such as Internet access, newspapers, or flyers
- advertisements (optional)

LEARNING GOAL

Make decisions about earning, saving, spending, and giving.

Aneela gets an allowance of \$5 every week for doing chores. She is saving to buy one of these items. Her parents said that they would pay the tax.



How can Aneela decide what to buy?
How much money will she need to save?

The central question
introduces the problem
being solved in the
lesson



Student Resource

Lesson N: Making Decisions about Money



Aneela's Plan

I'll organize the items in a needs and wants list.

Needs	
ski goggles	I need them for a snowboarding trip in 8 weeks.
Wants	
MP3 player	My old MP3 player still works.
boots	My boots still fit, so I don't need new boots yet.

I'll save for the ski goggles.

Worked examples demonstrate student thinking

Reflecting questions to consolidate learning



- How much money does Aneela need to save for the ski goggles?
- For how long does she need to save?

Reflecting

- What is the difference between a need and a want?
- Suppose Aneela decided to donate \$10 to the local food bank. How long would it take her to save for the goggles and donation?
- Suppose Aneela's old boots no longer fit. Would this affect her decision about what to buy? Explain.

Student Resource

Lesson N: Making Decisions about Money

Checking

- Sanjay has saved \$80. He made a list of the ways he might spend the money.

birthday present for sister
new video game for \$39.65, including tax
donation to food bank

- How might Sanjay list his wants and needs?
- Suppose Sanjay bought the game. How much money would he have left for the present and the donation?
- How would you use the remaining money for the present and the donation?

Practising

- Francine gets \$50 each month for delivering flyers in her First Nations community. She clipped the prices of items she would like to buy, including tax.

Headphones	Skateboard	Dance Vest
\$37.75	\$84.35	\$96.95

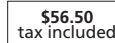
Francine is starting dance lessons in 2 months.

- How might Francine list her wants and needs?
 - What should she buy?
 - How long will it take her to save for this item?
- Bruce gets \$15 each week for walking his neighbour's dog twice a day. He wants to buy a remote control plane for \$92.95, including tax.
 - How long will it take him to save for the plane?
 - Suppose that Bruce donates \$3 each week to an animal shelter. How much longer will it take him to save for the plane?
 - Research a charity you might donate to. How much money might you donate? Explain why.



Checking and Practising questions to further consolidate learning

Lesson N: Making Decisions about Money



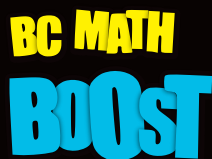
- I earned \$10 washing and vacuuming the car. I'll earn \$14 checking on *my* uncle's cats this weekend.



7. Think of 4 items you would like to buy.
 - a) Research the prices of these items in flyers or online. Ignore the tax.
 - b) Organize the items in a needs and wants list.
 - c) Which item would you save for? Explain why.

[illegible]

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