

Strand: F. Financial Literacy / A. SEL _____

Expectations:

- **F1. Money and Finances:** demonstrate an understanding of the value and use of Canadian currency
- **F1.1:** estimate and calculate the change required for various simple cash transactions involving whole-dollar amounts and amounts of less than one dollar
NOTE: This lesson will specifically focus on calculating change for whole-dollar amounts.
- **A6. SEL Skills:** Think critically and creatively
- **Mathematical Processes:** *connecting* - make connections among mathematical concepts, procedures, and representations, and relate mathematical ideas to other contexts (e.g., other curriculum areas, daily life, sports)

Learning Goals (student-friendly language that can be shared with students):

- I will calculate the change needed when buying items that cost one dollar or more.
- I will represent the change when buying an item in different ways, using different coins, bills, and other forms.
- I will think carefully and creatively when solving problems.
- I will make connections between math ideas and my daily life.

Materials and/or Resources:

- Chart paper
- Markers
- Fake money
- Problem sheet
- Cost of baked goods sheet
- Image of a Sales Receipt up on the board
- Receipt paper (small rectangular shaped paper)

The mPower Pet Store

Dog food	\$5
Dog leash	\$8

TOTAL	\$13

Paid	\$20
Change	\$7



BAKE SALE	
<i>Price List</i>	
1 cookie	\$2
1 brownie	\$3
1 muffin	\$3
1 cupcake	\$4
1 cake slice	\$4
1 banana bread slice	\$4
1 pie slice	\$7
1 whole cake	\$12

Important Terminology / Word Wall:

- change, calculate, whole number, coins (loonie: \$1 and toonie: \$2), bills (\$5, \$10, \$20, \$50, \$100)

MINDS ON/ GETTING STARTED! Elicit and engage – activate prior knowledge and ‘set the stage’ - game, whole class or small group activity, read aloud, simpler/section of problem...

Come together as a class in a circle and have chart paper by the teacher:

10-15 minutes

- Discuss and write answers on chart paper:
 - What is a whole number? Ask for examples {eg. no decimals, anything 1 and above eg. 2, 5, 10, 11...}
 - Ask what is a whole-dollar? {currency/money that does not involve cents}
- Do a Think-Pair-Share “What are some whole-dollar currency that you are familiar with?”:
 - Think about Canadian currency/money that you know of that is a whole-dollar amount.
 - Pair with your partner and share with one another
 - Share as a class: teacher charts which whole-dollar currency students know and separates them into two sections: coins and bills
 - Ask if anyone knows the names of the coins. Introduce coin names loonie and toonie
 - Show fake money to have a visual of how the whole-dollar coins and bills look, in case students are not familiar with all of them.

Class Activity:

- Give the class a problem
 - You are buying some school supplies, the supplies cost \$6 and you have a \$10 bill. What is the amount of change that you would receive?
- Give a private thumbs up once you have an answer to the problem.
- Questions:
 - What does change mean in this situation? {the difference between what we paid and the cost of the items}
 - What is the change amount? Ask how they found that amount? {Using the number line, using the fake money, using mental math}
 - What are different ways you can represent the change amount, using the different coins and bills? {eg. 2 toonies, or 4 loonies}

WORKING ON IT! The PROBLEM/ACTIVITY that students work on – partner, small group or individual)

Activity:

20-25 minutes

- Divide students into groups of 2 or 3 (depending on the class size)
- Every pair or group of 3 will have:
 - a problem sheet
 - cost of baked good sheet
 - fake money
 - chart paper
 - markers

Problem for Activity:

Our school is raising money to buy Makey Makey equipment for every classroom. The school will raise the money by having a bake sale during school hours for students, parents, teachers, and family members. Each person in your group has \$15 to spend on baked goods to help contribute to the fundraising.

Role Play:

- Take turns being the bake sale cashier and the student
- When you are the student you need to tell the bake sale cashier exactly which items you want
- Together, on chart paper, create a sales receipt with all the items that the student wants and their costs, the total cost of the items, how much the student paid, and the change amount you gave them. (Similar to the sale receipt image on the board)
- Student will give the cashier money for their purchase (using fake money)
- Cashier will provide student with the change (using fake money)
- Together students will write down on chart paper the change that each student received and all the different ways they can represent the change amount.

+ Key Questions (that you might ask as the students work):

Enabling Prompts/Questions:

- What items are you going to buy?
- What items can you buy where their total is less than \$15?
- Can your items' total cost be more than \$15? Why or why not?
- Why wouldn't you be able to pay for your items if your total was more than \$15?
- Why did you give the cashier ____ (amount of money)?
- Which bills or coins can you start with to pay for your items?
- What strategy can you (or did you) use to make sure that the total amount is right?
- What strategy can you (or did you) use to make sure that the change amount is right?
- What is 'change' in this situation? How can we find the change amount?
- By looking at the bills and coins, which ones can you use to give _____ (student name) their change?
- What are some ways you can give \$ ____ (eg. \$5) back to _____ (name of student)?
- Is there anything missing from the sales receipt?
- Can you think of another way to represent the change amount?

Extending Prompts/Questions:

- How can you use multiplication to represent multiple items on the receipt?
- What items can you pick to get the total amount as close as possible to \$15?
- Can you use a different combination of bills and coins to come up with your paid amount?
- What does it mean to have \$0 in change?
- What happens if you add a _____ (baked item), can you still buy everything on your list?

ANTICIPATE STUDENT RESPONSES/STRATEGIES:

- See attached document.
- Students might struggle:
 - By buying more than they can afford, with the money given in the problem.
 - By giving the wrong bills or coins.
 - By giving the wrong change.
 - By adding the total cost incorrectly.
 - With the idea that in order for them to find the change amount they need to use subtraction. So, subtracting the total cost from the cost paid.

CONSOLIDATION/REFLECT AND CONNECT: Students Share Solutions and Teacher Annotates (*reflecting, presenting, sharing, growing, adapting*)

FORMAT FOR SHARING:

15-20 minutes

- Each group will share one of their receipts with the class. They will explain their receipt with the class by saying what items they bought, what the total cost was, how much they paid, what was the amount of change they got, and what are the different ways that they represented the change amount.
- Teacher will ask students different questions and chart the answers.

KEY POINTS TO ADDRESS (math, strategy(ies),...) through Anchor Charts, Word Wall, Strategies Wall, Success Criteria,...

- What strategies were used to calculate the change amount? {number line, mental math, using nicer numbers, etc.}
- What are the different ways that the change amount can be represented by using coins and bills? {by using different combinations of coins and bills. Students can use an example to demonstrate this idea}
- What are some creative ways that the change amount was represented by? {Eg. by using words, by using multiplication}
- What does it mean to have \$0 in change? {you paid the exact amount, there is no change to give back}
- Why did you need to think carefully about which items you wanted or could get? {can't get more than \$15 worth of items}

Terminology to highlight/document:

- change: What does change mean in this situation?
- calculate: How did you calculate the change amount?
- Whole number: What was the whole number that you used to pay for your items?
- Coins (loonies, toonies): Which coins did you use for the paid or change amount?
- Bills: What bills did you use for the paid or change amount?

Highlight:

- That subtraction is used in our daily life, especially when we go to a store to buy stuff.
- Adding is used when we find the total cost of our purchase.
- Adding is used to find out if we can afford to buy different items.
- We can't get items that cost more than the amount of money we have to pay for these items.
- That we can represent the same item multiple times on a receipt by using multiplication.

DI AND ACCOMMODATIONS

INDEPENDENT PRACTICE: Students work independently on similar task to consolidate learning and practice application of new skills

Exit Ticket:

5-10 minutes

- Students will be asked to make a Sales Receipt individually
- The receipt needs to contain:
 - A store name
 - At least 2 items with a price for each item being more than \$1
 - A total amount
 - How much the person paid in cash
 - The amount of change the person received in cash
 - Two different ways the person can receive their change. {different combinations of whole-dollar amounts. Eg. \$6 = \$5 + 1 loonie or \$6 = 3 toonies}

- Students will be asked to place their receipts in a receipt bucket by the classroom door.