

Unit Planner

Overview			
Subject:	Math	Topic:	Financial Literacy
Unit Overview:	This unit will explore the concepts of financial literacy and financial responsibility. It is a progressive unit, with many entry points for students at all intermediate grade levels. Specifically, students will explore the question of why money is important, and the specific concepts of earning, spending, donating and saving, as well as how their own personal values and beliefs could impact the decisions they make with money. All of the learning tasks will lead to the culminating project where students will create a working budget for themselves.		
Grade:	4-7		
Unit Duration:	2-3 weeks	Date:	January 4, 2017

Stage 1 – Desired Results

Big Ideas

1. Number represents and describes quantity: Parts of wholes can be represented by fractions and decimals
2. Developing computational fluency comes from a strong sense of number.

Core Competencies

Communication

- share information
- connects experiences

Thinking

- create new ideas of my own
- reflect on thinking
- analyze assumptions

Personal and Social

- explore values and choices

Concepts	Unit Understandings	Transfer Goals	Essential Questions
<ol style="list-style-type: none"> 1. Monetary calculations, percent calculations, value of money 2. Consumer math, budgeting, monetary calculations 	<p>Students will understand that...</p> <ol style="list-style-type: none"> 1. Money has an important place in our world, and impacts many aspects of our lives (individually, as a family, as community, etc) 2. Having a realistic budget can help prepare you for big life events. 3. Saving money and being financially responsible will help you reach your goals. 4. How you view money is dependent on many things (personal and family values; personal decisions). 	<p>Students will be able to independently use their learning to...</p> <ol style="list-style-type: none"> 1. Function in the real world; see the everyday applications of math. 2. Make basic financial decisions (i.e. do they have enough money to purchase something; saving) 3. Understand when financial mistakes have been made (i.e. incorrect change given, or going into debt). 	<p>Students will keep considering...</p> <ol style="list-style-type: none"> 1. Why is money important? 2. How do values determine spending habits ? 3. What is financial responsibility? 4. How is worth determined?

First Peoples Principles

Learning involves recognizing the consequences of one's actions.

Learning is holistic, reflexive, reflective, experiential, and relational.

➔ **Alignment Check:** ➔

Are your concepts, unit understandings, transfer goals, and essential questions connected and supportive of your Big Idea?

Curricular Competencies	Content
<p>Students will be skilled at...</p> <p>REASONING AND ANALYZING:</p> <ul style="list-style-type: none"> * estimate reasonably * develop mental math strategies and abilities to make sense of quantities <p>UNDERSTANDING AND SOLVING:</p> <ul style="list-style-type: none"> * develop, construct, and apply mathematical understanding through role-play, inquiry, and problem solving * engage in problem solving experiences that are connected to place, story, and cultural practices relevant to the local community <p>COMMUNICATING AND REPRESENTING:</p> <ul style="list-style-type: none"> * use technology appropriately to explore mathematics, solve problems, record, communicate and represent thinking <p>CONNECTING AND REFLECTING:</p> <ul style="list-style-type: none"> * connect mathematical concepts to each other and make mathematical connections to the real world 	<p>Students will know that...</p> <p>GRADE 4:</p> <ul style="list-style-type: none"> • how to perform monetary calculations, including making change with amounts to 100 dollars • how to make simple financial decisions <p>ELABORATIONS:</p> <ul style="list-style-type: none"> • earning, spending, saving, and giving <p>GRADE 5:</p> <ul style="list-style-type: none"> • how to perform monetary calculations, including making change with amounts to 1000 dollars <p>ELBORATIONS:</p> <ul style="list-style-type: none"> • applying a variety of strategies, such as counting up, counting back, and decomposing to calculate totals and to make change • how to develop simple financial plans to meet a financial goal making change and decimal notation <p>GRADE 6 :</p> <ul style="list-style-type: none"> • simple budgeting • consumer math <p>ELABORATIONS:</p> <ul style="list-style-type: none"> • how to develop a budget that takes into account income and expenses <p>GRADE 7:</p> <ul style="list-style-type: none"> • financial percentage calculations (discount, bill splitting, and taxes)

Stage 2 – Evidence: Assessing for Understanding

Assess: Understanding

Summative:	Formative:
<p>Culminating Performance Task(s) at the end of the unit to show understanding</p> <p>Teachers should consider how assessment should be differentiated to meet students' diverse needs, interests, and learning styles.</p>	<p>Checkpoints for understanding during the unit</p> <p>Teachers should consider how formative assessment is ongoing, varied, and central to the instructional learning cycle.</p>

AUTHENTIC PERFORMANCE TASK: Assessing for Understanding

Students will be able to demonstrate their understanding by:

What is a **GRASPS** task?

GRASPS – PERSONAL BUDGET – GRADE 4	
GOAL	Design a personal budget that reflects your income
ROLE	Imagine you have an allowance that earns \$20/week. You have saved all the money you earned over the 8 weeks of summer.
AUDIENCE	The Bank of _____ (fill in your name, or school name)
SITUATION	Create a budget for yourself that shows how much you have earned, how much you plan to save, how much you plan to donate to a favourite charity, and how much you plan to spend, as well as itemizing what

OTHER EVIDENCE: Assessing for Knowledge and Skills

Students will show they have acquired Stage 1 knowledge and skills by:

- Participation during class and small group discussions – look for level of understanding with regards to the unit understandings. Are students developing their understanding of the importance of money, and how financial decisions are impacted by many different things?
- Imbed "What Makes You Say That?" into all class and individual discussions <http://www.visiblethinkingpz.org>
- reflections on spending, earning, donating and being financially responsible
- reflections on personal views of money (Claim, Support, Question; I Used to Think...Now I Think...) <http://www.visiblethinkingpz.org>
- Exit slips after various lessons. Possible frame could be "The most important thing to know about. is..."

	you plan to spend your money on.
PERFORMANCE OR PRODUCT	Your budget should include all the necessary work involved in your calculations, as well as itemized lists of what you will be spending your money on, so as to reflect your personal choices. You will also need to decide whether or not you have any money left over at the end of your budget, to add to your savings, or if you are going to spend it all. After completing your budget, complete a personal reflection piece that discusses how you made the choices you did, with regards to how much, and where you donated money to, and what you chose to purchase.
DIFFERENTIATION	<p><u>ADAPTATIONS:</u></p> <ul style="list-style-type: none"> • box templates could be provided for students to aid in the operations performed with whole numbers and decimals, to help keep the places in line • students at this grade level who are able, can work on tasks from higher grade levels instead • templates could be provided for the personal reflection piece, with guiding questions <p><u>EXTENSIONS:</u></p> <ul style="list-style-type: none"> • all levels: create a graph to represent your budget (pictographs, line graphs, bar graphs, circle graphs; discuss which graphs would be appropriate and how you might use them) • turn your budget into a board game to demonstrate the concepts of earning and spending by moving forward and backward on the game board; play The Game of Life and Monopoly with students

GRASPS – PERSONAL BUDGET – GRADE 5	
GOAL	Design a personal budget that reflects your income
ROLE	Imagine you have an allowance that earns \$20/week. You have saved all the money you earned over the 8 weeks of summer. You have also had the opportunity to make more money, by completing extra chores and have a total of \$500.
AUDIENCE	The Bank of _____ (fill in your name, or school name)
SITUATION	Create a budget for yourself that shows how much you have earned, how you have earned it, how much you plan to save, how much you plan to donate to a favourite charity, and how much you plan to spend, as well as itemizing what you plan to spend your money on.
PERFORMANCE OR PRODUCT	Your budget should include all the necessary work involved in your calculations, as well as itemized lists of what you will be spending your money on, so as to reflect your personal choices. You will also need to decide whether or not you have any money left over at the end of your budget, to add to your savings, or if you are going to spend it all. After completing your budget, complete a personal reflection piece that discusses how you made the choices you did, with regards to how much, and where you donated money to, and what you chose to purchase.
DIFFERENTIATION	<p><u>ADAPTATIONS:</u></p> <ul style="list-style-type: none"> • box templates could be provided for students to aid in the operations performed with whole numbers and decimals, to help keep the places in line • students at this grade level who are able, can work on tasks from higher grade levels instead • templates could be provided for the personal reflection piece, with guiding questions <p><u>EXTENSIONS:</u></p> <ul style="list-style-type: none"> • all levels: create a graph to represent

	<p>your budget (pictographs, line graphs, bar graphs, circle graphs; discuss which graphs would be appropriate and how you might use them)</p> <ul style="list-style-type: none"> • turn your budget into a board game to demonstrate the concepts of earning and spending by moving forward and backward on the game board; play The Game of Life and Monopoly with students
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GRASPS – PERSONAL BUDGET – GRADE 6	
GOAL	Design a personal budget that reflects your income
ROLE	Imagine you have an allowance that earns \$20/week. You have saved all the money you earned over the 8 weeks of summer. You have also had the opportunity to make more money, by completing extra chores and have a total of \$1000.
AUDIENCE	The Bank of _____ (fill in your name, or school name)
SITUATION	Create a budget for yourself that shows how much you have earned, how much you plan to save, how much you plan to donate to a favourite charity, and how much you plan to spend, as well as itemizing what you plan to spend your money on.
PERFORMANCE OR PRODUCT	<p>Prior to completing your budget, you will need to fill in the Chore Chart, to calculate your variable income. Your budget should then include all the necessary work involved in your calculations, as well as itemized lists of what you will be spending your money on, so as to reflect your personal choices. You will also need to decide whether or not you have any money left over at the end of your budget, to add to your savings, or if you are going to spend it all.</p> <p>After completing your budget, complete a personal reflection piece that discusses how you made the choices you did, with regards to how much, and where you donated money to, and what you chose to purchase.</p>
DIFFERENTIATION	<p><u>ADAPTATIONS:</u></p> <ul style="list-style-type: none"> • box templates could be provided for students to aid in the operations performed with whole numbers and decimals, to help keep the places in line • students at this grade level who are able, can work on tasks from higher grade levels instead • templates could be provided for the personal reflection piece, with guiding questions <p><u>EXTENSIONS:</u></p> <ul style="list-style-type: none"> • all levels: create a graph to represent your budget (pictographs, line graphs, bar graphs, circle graphs; discuss which graphs would be appropriate and how you might use them) • turn your budget into a board game to demonstrate the concepts of earning and spending by moving forward and backward on the game board; play The Game of Life and Monopoly with students

GRASPS – PERSONAL BUDGET – GRADE 7	
GOAL	Design a personal budget that reflects your income
ROLE	Imagine you have an allowance that earns \$20/week. You have saved all the money you earned over the 8 weeks of summer. You have also had the opportunity to make more money, by completing extra chores and have a total of \$1000.
AUDIENCE	The Bank of _____ (fill in your name, or school name)
SITUATION	Create a budget for yourself that shows how much you have earned, how you have

	earned it, how much you plan to save, how much you plan to donate to a favourite charity, and how much you plan to spend, as well as itemizing what you plan to spend your money on.
PERFORMANCE OR PRODUCT	<p>Prior to completing your budget, you will need to fill in the Chore Chart, to calculate your variable income. Your budget should then include all the necessary work involved in your calculations, as well as itemized lists of what you will be spending your money on, so as to reflect your personal choices. Record your income and expenses as positive and negative integers.</p> <p>Half way through the summer, your favourite musician comes into town and you and your best friend have to go to their concert. Your friend cannot afford a ticket, so you will need to pay for them, and the total cost is \$275. You will need to adjust your budget accordingly. You can't go back in time and earn more money, so what costs are you going to change, if any? You will also need to decide whether or not you have any money left over at the end of your budget, to add to your savings, or if you are going to spend it all.</p> <p>After completing your budget, complete a personal reflection piece that discusses how you made the choices you did, with regards to how much, and where you donated money to, and what you chose to purchase.</p>
DIFFERENTIATION	<p><u>ADAPTATIONS:</u></p> <ul style="list-style-type: none"> • box templates could be provided for students to aid in the operations performed with whole numbers and decimals, to help keep the places in line • students at this grade level who are able, can work on tasks from higher grade levels instead • templates could be provided for the personal reflection piece, with guiding questions • blank Chore Charts could be given to students, and then have them assign the values for each chore; this would lead to assessment regarding students' understanding of worth • Chore Charts could be partially filled out, or completely filled out prior to giving them to students <p><u>EXTENSIONS:</u></p> <ul style="list-style-type: none"> • all levels: create a graph to represent your budget (pictographs, line graphs, bar graphs, circle graphs; discuss which graphs would be appropriate and how you might use them) • Grade 7: calculate what percent of your earnings are going to each item/category in your budget • turn your budget into a board game to demonstrate the concepts of earning and spending by moving forward and backward on the game board; play The Game of Life and Monopoly with students

Assess: Know & Do

Summative:	Formative:
Final assessments of knowledge and skill at the end of the unit	Checkpoints for students to show their knowledge and skills during the unit
Teachers should consider how summative assessments should be based on clear criteria and include a variety of ways for students to show demonstrate their learning	Teachers should consider how this ongoing assessment is clear, specific, and timely in order to support student progress
<ul style="list-style-type: none"> • performance on practice activities and text book work - look for ability to perform the monetary (borrowing, regrouping, decimal place value) and percent calculations (the process needed to perform these) 	<ul style="list-style-type: none"> • short quizzes imbedded throughout to assess students' ability to perform the monetary calculations (borrowing, regrouping, decimal place value) and percent calculations (the process needed to perform these)

Stage 3 – Executing the Learning Plan

These learning events/activities are suggested activities. Some activities may span over several lessons. Teachers should add, revise, and adapt based on the needs of their students, their own personal preferences for resources, and a variety of instructional techniques.

PART A

WHY IS MONEY IMPORTANT?

HOW IS WORTH DETERMINED?

Lesson 1: Why is money important?

- Using Chalk Talk (Making Thinking Visible strategy), have students answer this question. Reinforce/model the different conversational moves they can make while working through this. Students can answer the question, can comment on others, ask further questions. Students start in their own small groups, with their own chart papers to record on, then rotate to other groups, in order to add to the discussion. (A)
- Debrief afterwards to hear each other's opinions. This can be done as a whole group discussion, or use Claim, Support, Question (A, M) http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03f_TruthRoutines/ClaimSupport/ClaimSupport_Routine.html to have students answer the question personally. Alternatively, students who may have changed their original answers/opinions regarding this questions could use the "I Used to Think, Now I Think" routine. (M, T)

Lesson 2: How has money evolved over time? How has/is worth determined?

- Ask further questions about how our system of money has evolved over time. Make Social Studies connections to different early civilizations and how the concept of worth even started. An option here would be to do the Think, Puzzle, Explore Thinking Routine http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03d_UnderstandingRoutines/ThinkPuzzleExplore/ThinkPuzzleExplore_Routine.html to have students think about what they already know about this, as well as what they may still wonder about and how they might go about finding the answers to their puzzles. (A, M, T)

Lesson 3: What can we do with money?

- Show the youtube video - "Cha-Ching: Earn, Save, Spend and Donate" do lead into a discussion of the different things we can do with money and the personal choices we make with it (A)
- Discuss how we use money today. Have students reflect on their personal experiences with earning and spending money. What has gone well? What roadblocks have they encountered? (M)

Lesson 4: Spending Money

- Spending money - Introduce the term expenses and give the students opportunities to spend money. This could be done using manipulatives, pen and paper, or with a calculator. Options could include:
 - giving students a set amount of money, and allowing them to determine what they will buy, and how much money they would have leftover. (A)
 - repeating option a and buying multiple items (A)
 - role playing the customer and the cashier to determine if change given is accurate (A, M)
 - creating a shop in your classroom for students to purchase items from, or providing them with actual store flyers (A, M)
 - have students buy multiples of one item (connect to algebraic expressions, and t-tables) (A)
 - explore the concepts of discount, tip and tax with the higher level groups/students (A)
 - explore the concept of unit price and what is the better deal between two products with differing prices (A) (T)
 - explore the concepts of debt and credit; make connections to Social Studies curriculum and the concepts of government spending at different levels of government (M, T)
 - textbook work : Grade 4 Math Makes Sense - p. 308-311 (monetary calculations); Grade 7 Math Makes Sense - p. 114-116; p. 124-125 (percent calculations) (A, M)

Lesson 5: Donating Money

- Discuss what this actually means and why would donating money be important? Do a Value Line activity where students place themselves along the line according to how important they think it is to donate money to those in need. This would be another opportunity to do the Claim, Support, Question Thinking Routine. http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03f_TruthRoutines/ClaimSupport/ClaimSupport_Routine.html (M, T)
- Brainstorm a list of possible charities that students may have heard of (i.e. SPCA, ME to WE, Red Cross); discuss the various ways to donate money and the organizations involved (i.e. gofundme, kickstarter, Keva, Free the Children, religious charities, World Vision, Plan Canada, Habitat for Humanity) (A, M, T)
- Pose the question: Are some charities better than others? How do you know? Lead students into understanding that not all money donated to charities goes directly to the groups they are supposed to support; some goes to administrative fees. Would this affect who you donated to? (A, M)

Lesson 6: Earning Money

- Earning money - Introduce the term income and discuss how some income may be fixed, and other may be variable. Give the students opportunities to earn money. This could again be done using manipulatives, pen and paper, or with a calculator. Options could include:
 - brainstorm different ways they could earn money, in age appropriate ways (A)
 - give the students jobs around the classroom that they could do to earn classroom currency (M)
 - give students real life jobs and their rate of pay; use this to calculate various earnings dependent on how much they work; put these jobs on cards and have students rotate through them and discuss the differences between low and high paying jobs; make links to Career Education and how different careers/jobs have different rates of pay (A, M)
 - give students scenarios around earning an allowance - how could they do it? Set weekly rates or differing costs for different chores? Discuss the concept of worth - should one chore be worth than another (A, M)

PART B

WHY WOULD I WANT TO SAVE, AND HOW WOULD I DO IT?

WHAT DOES IT MEAN TO BE FINANCIALLY RESPONSIBLE?

HOW DO MY VALUES DETERMINE HOW I SPEND MONEY?

Lesson 7: Needs Versus Wants

1. Discuss the difference between needs and wants. Have students brainstorm their own lists of needs and wants in their own lives. Have them role-play and brainstorm needs and wants of children in different countries, or their parents. How do you prioritize your wants? Have students answer the following questions:
 - a) I need to spend money on...
 - b) I want to spend money on... (A, M, T)
2. Explore the pbskids.org website - "It's My Life - Money" section <http://pbskids.org/itsmylife/money/> (A)

Lesson 8: Saving Money and Setting Financial Goals

3. Discuss challenges that may get in the way of saving money and how you could deal with them. An individual reflection piece here could be the sentence starter: "Saving money is..." (M)
4. Set short and long term spending goals and have students develop a plan to meet those goals. (M)
5. Have students create a "How to Save Money" poster, powerpoint, video to teach other kids how to do it (M)

Lesson 9: Putting it all Together

6. Developing a budget - putting the spending and earning together. Options could include:
 - a) simple budgeting worksheets that work with money in and money out (extend this to positive and negative integers for higher levels (A, M)
 - b) developing a list of common expenses students and adults may have (A, M)
 - c) discuss the concepts of being financially literate and financially responsible (A)

Resources:

PICTURE BOOKS:

The History of Money: From Bartering to Banking by Martin Jenkins
National Geographic Kids Everything Money: A wealth of facts, photos and fun by Kathy Furgang

WEBSITES:

pbskids.org - "It's My Life - Money" section - <http://pbskids.org/itsmylife/money/>
youtube.com - "Cha-Ching: Earn, Save, Spend and Donate" <https://www.youtube.com/watch?v=yD6iVjViT4Y>
www.visiblethinkingpz.org

TEXTBOOK:

Math Makes Sense Grades 4 and 7 textbook

PROFESSIONAL RESOURCES:

Making Thinking Visible - by Ron Ritchhart and Mark Church

BLACK LINE MASTERS:

Blank budget forms for each grade level
Blank and partially filled in "Chore Charts" for Grades 5-7
Blank "Debts I Owe" charts

Teacher: Unit Reflection

What aspects of the unit went well?

What did students struggle with?

What did you struggle with?

What would you add/revise the next time you taught this unit?

Were there any unintended outcomes?

Were students engaged?