



Preview – Information



Thank you for your interest in this product. Within this preview, you will see:

- ✓ **A selection of Ready-To-Use Google Slides Lessons.**
- ✓ **A selection of worksheets included in the workbook.**

When you make a purchase, you will receive a folder that contains the .pdf workbook file and a link to where you can make a copy of the Google Slides Lessons unit to your Google Drive.

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Google Slides Lessons Preview





BC Math Curriculum Financial Literacy– Grade 7

3-Part Lesson Format

Part 1 – Minds On!

- Learning Goals
- Discussion Questions
- Quotes
- And More!

Calculating Percentage

Learning Goal

We are learning to **calculate percentages by multiplying decimals**, so we can **make informed financial decisions** about discounts, taxes, tips, and savings.

Multiplying Decimals

Multiply the decimals and write the answer.

*0.1	*0.01
20*0.1	30*0.01
200*0.1	700*0.01
4*0.1	800*0.01
40*0.1	40*0.01
450*0.1	500*0.01
6*0.1	100*0.01
60*0.1	1500*0.01
650*0.1	2000*0.01

Part 2 – Action!

- Writing
- Matching
- Drag and Drop
- Drawing
- And More!

Part 3 – Consolidation!

- Exit Cards
- Quizzes
- Reflection
- And More!

Calculating Percentages

Answer the questions below

Questions	Answer
1) Daniel wants to buy a bicycle helmet that costs \$60.00 . It is on sale for 15% off . How much will Daniel pay for the helmet before tax?	
2) Sofia has \$150.00 to spend at an electronics store. She finds a pair of headphones priced at \$120.00 with a 20% discount . a) How much money will Sofia save with the discount? b) How much will the headphones cost before tax? c) If 15% tax is added to the discounted price, how much will she pay in total? d) How much of her \$150.00 will Sofia have left after buying the headphones?	



BC Math Curriculum Financial Literacy– Grade 7

Calculating Percentages

Find half of the numbers below.

Number
32
74
56
112
180
546
782
834

0
1
2
3
4
5
6
7
8
9

Fill in the table below.

Number	50%	25%
120		
180		
260		
316		
452		
576		
624		
748		

Calculating Percentages

Fill in the table below.

Item	10%	5%	Total Tax
 \$70.00			
 \$20.00			
 \$100.00			
 \$40.00			

\$2.00	\$10.00	\$10.50
\$7.00	\$2.00	\$3.00
\$1.00	\$3.50	\$6.00
\$5.00	\$4.00	\$15.00

Solve the word problems below using a 15% tax rate

1) Jacob wants to buy a new pair of soccer shoes that cost \$50. About how much will he pay in sales tax?	
2) Ethan buys headphones for \$20. If he pays with \$50 bill, about how much change will he get after tax?	
3) Nicole is buying a new backpack that costs \$40. About how much will she pay in sales tax?	
4) Chloe is buying some art supplies that cost \$24 before tax. About how much will she pay just for the tax?	
5) Bryan is shopping for a soccer ball priced at \$30. About how much will he pay after adding tax?	

\$4.50	\$27.00
\$34.50	\$3.00
\$6.00	\$3.60
\$46.00	\$7.50



BC Math Curriculum Financial Literacy– Grade 7



Estimating Sales Tax



Solve the word problems below using a 15% tax rate

- 1) Jacob wants to buy a new pair of soccer shoes that cost \$50. About how much will he pay in sales tax?
- 2) Ethan buys headphones for \$20. If he pays with a \$50 bill, about how much change will he get after tax?
- 3) Nicole is buying a new backpack that costs \$40. About how much will she pay in sales tax?
- 4) Chloe is buying some art supplies that cost \$24 before tax. About how much will she pay just for the tax?
- 5) Bryan is shopping for a soccer ball priced at \$30. About how much will he pay after adding tax?

\$4.50

\$27.00

\$34.50

\$3.00

\$6.00

\$3.60

\$46.00

\$7.50



Determining Sales Tax

Determine the tax and total price of the items below.

Item	Tax (13%)	Total Price
 \$13.00		
 \$72.00		
 \$36.00		
 \$14.00		

\$1.69

\$9.46

\$1.82

\$5.10

\$81.26

\$15.82

\$40.68

\$4.65

\$14.69

\$9.36

\$81.36

\$4.68



\$400

\$360

\$162.50

\$600

\$71.50

\$325

\$1100

\$39

\$15

\$2300

\$650

\$26

\$1800

\$110

\$315

\$2500

\$117

\$149.50



Workbook Preview



Grade 7

Financial Literacy

	Curriculum Expectations	Pages
F1.1	financial literacy, financial percentage	

Preview of 60 pages from
this product that contains
130 pages total.

Mental Math – Calculating Percentages – 1%, 10%

Percents represent a rate out of 100 in relation to a whole. Therefore, we can represent 1% as 0.01 and 10% as 0.1.

Example – $150 \times 0.01 = 1.5$ (1% of 150 is 1.5)
 $150 \times 0.10 = 15.0$ (10% of 150 is 15)



Instruction Fill in the table below.

	Num	$\times 0.01$	1%	$\times 0.10$	10%
1)	1				
2)	200				
3)	300				
4)	150				
5)	250				
6)	275				
7)	375				
8)	411				
9)	537				
10)	672				

Mental Math – Calculating Percentages – 10%, 15%

Percents represent a rate out of 100 in relation to a whole. Therefore, we can represent 10% as 0.10 and 15% as 0.15.

Hint – To mentally calculate 15%...

1. Determine 10% of the number
2. Find half of the answer (5%)
3. Add the 5% to the 10%

Example

1. $210 \times 0.10 = 21.0$
2. Half of 21.0 = 10.5
3. $21.0 + 10.5 = 31.5$
4. Therefore, 15% of 210 = 31.5

**SPECIAL
OFFER**



Instruction

	Number	0.05 (Half)	15%
1)	100	5	15
2)	200		
3)	400		
4)	500		
5)	120		
6)	180		
7)	240		
8)	310		
9)	450		
10)	680		

Mental Math – Calculating Percentages – 25%, 50%

Percents represent a rate out of 100 in relation to a whole. 50% represents half of a number and 25% is a quarter of a number.

Steps – Calculating 50%...

1. Find half of the number

Example – 50% of 148

1. Divide the number 148 in half
(148 ÷ 2 = 74)
2. 50% of 148 is 74

Steps – Calculating 25%

1. Find out what 50% of the number is by halving the number
2. Halve the number one more time

Example – 25% of 188

1. $188 \div 2 = 94$
2. $94 \div 2 = 47$

Part 1

Find 50% of the numbers below?

- | | |
|---------------|---------------|
| 1) 24 _____ | 3) 76 _____ |
| 4) 128 _____ | 6) 212 _____ |
| 7) 264 _____ | 8) 410 _____ |
| 10) 550 _____ | 11) 636 _____ |

Part 2

Fill in the table below.

	Number	50%	25%
1)	100		
2)	200		
3)	240		
4)	164		
5)	188		
6)	264		

	Number	50%	25%
7)	348		
8)	414		
9)	560		
10)	644		
11)	828		
12)	940		

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class.

Name: _____

Fill in the table below:

		50%	25%
1)			
2)	464		
3)	780		
4)	940		
5)	1012		
6)	1460		

Name: _____

Fill in the table below:

	Number	50%	25%
1)	376		
2)	464		
3)	780		
4)	940		
5)	1012		
6)	1460		

Name: _____

Fill in the table below:

	Number	50%	25%
1)	376		
2)	464		
3)	780		
4)	940		
5)	1012		
6)	1460		

Name: _____

Fill in the table below:

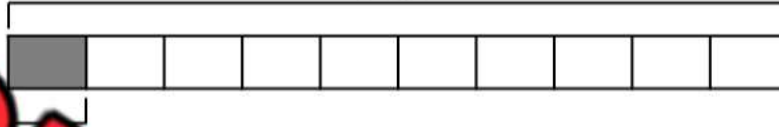
	Number	50%	25%
1)	376		
2)	464		
3)	780		
4)	940		
5)	1012		
6)	1460		

Mental Math – Calculating Percentages – Visuals

When we want to find the percent of a number, scaling up and down is the best way.

For example, a shirt costs \$80 at regular price. To calculate a sale price, we can scale 10% up and down. First, 10% of 80 is 8 which means 20% is 16 and 30% is 24.

\$80

**Practice**

Write the answers below:

1) Tom is shopping for headphones. He finds a pair he likes for \$70.00. They are on sale for 15% off. How much will he pay before tax?



2) Lindsay is out shopping for a new winter coat. She finds one for \$90.00 plus an additional 20% off. How much will the coat cost before tax?



3) Joe brings \$100 to the mall to buy some new speakers. He finds some for \$78.00 with an additional 35% off.

- How much will the speakers cost before tax?
- With tax costing 15%, how much will the speakers cost?
- How much of the \$100 will Joe have when he leaves the mall?



Estimating Sales Tax

When we pay for something, we need to pay tax. **Tax** is an extra cost placed on a good or service that goes to the government. In BC, we pay 12% sales tax on almost everything we buy.

When we purchase something, we should add 12% to the total price so we know if we can afford it. We can do this by using a calculator or by estimating. Follow these steps to estimate the sales tax:

Estimating Tax

- 1) Divide the price by 10 (example - $\$32.00 \div 10 = \3.20) to determine 10% of the cost
- 2) Divide that number in half to find another 5% (example = $\$3.20 \div 2 = \1.60)
- 3) Add those numbers together to determine what a 15% sales tax would cost ($\$3.20 + \$1.60 = \$4.80$). A $\$32.00$ product would cost a total of $\$36.80$.

Instructions

Divide the price by 10 and then divide that answer by 2

#	Product Price	10%	Total Tax	Total Price
1	\$20.00	\$2.00	\$3.00	\$23.00
2	\$10.00			
3	\$30.00			
4	\$40.00			
5	\$50.00			
6	\$60.00			
7	\$25.00			
8	\$100.00			
9	\$42.00			
10	\$88.00			

Estimating Sales Tax – Word Problems

Questions

Answer the word problems below. Use 15% as an approximate sales tax

1) Brad is shopping for a new bike. He finds one he likes for \$150.00. Approximately how much will the bike cost him with sales tax included?



2) Stephanie is shopping for boots. Her mom sees a pair for \$98.00. Approximately how much will the boots cost?



3) Neill brings \$100 to a sports store to buy a hockey stick. He finds one for \$82.00. Approximately how much will the hockey stick cost? Approximately how much will he have left?



4) Jane sees a pair of jeans she wants that costs \$46.00. She has \$60.00. Approximately how much will these jeans cost her? Approximately how much money will she have left after she buys the jeans?



Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class.

Name: _____

a) Divide the numbers by 10 and then divide that answer by 2

#	Product Price	10%	5% (half of 10%)	Total Tax	Total Price
1					
2	\$16.00				
3	\$7				
4	\$42.00				

b) Mia wants to buy a dress that costs \$42.00. She knows the sales tax will add a bit more. How much will the total cost be if tax was 15%?

Name: _____

a) Divide the numbers by 10 and then divide that answer by 2

#	Product Price	10%	5% (half of 10%)	Total Tax	Total Price
1	\$24.00				
2	\$16.00				
3	\$38.00				
4	\$42.00				

b) Mia wants to buy a dress that costs \$64.00. She knows the sales tax will add a bit more. How much will the total cost be if tax was 15%?

Determining Sales Tax

To determine a 12% sales tax, we can use our knowledge of calculating 1% and 10%.



For example:

Product Price	1%	2%	10%	13%	Total Price
\$10.00	\$0.10	\$0.20	\$1.00	\$1.20	\$11.20

1% of 10.00 is 0.10, which is 10 cents. We can multiply this by 2 to get 2%, which gives us 0.20. 10% of 10.00 is 1.00 or 1 dollar. This gives us a total of \$11.20.

Questions: Use the steps above to calculate the sales tax and total price

#	Product Price	1%	2%	10%	12%	Total Price
1	\$24.00	0.24	0.48	2.40	2.40 + 0.48 \$2.88	\$26.88
2	\$17.00					
3	\$27.00					
4	\$44.00					
5	\$74.00					
6	\$68.00					

Determining Sales Tax

We can determine the exact price of a good or service by using a calculator. We can either convert the percentage to a decimal or we can use the percent button on our calculator.

Steps to use % Button on a Calculator

- 1) Enter the cost of the product
- 2) Hit the + button
- 3) Type the tax percentage (12)
- 4) Hit the % button (this will display the sales tax)
- 5) Click the = button



Question: Use the steps above to calculate the sales tax and total price

#	Product Price	Sales Tax (12%)	Total Price
1	\$24.00		\$26.88
2	\$17.50		
3	\$27.35		
4	\$44.75		
5	\$74.25		
6	\$68.70		
7	\$125.15		
8	\$174.10		
9	\$194.65		
10	\$214.20		

Determining Sales Tax – Word Problems

Questions

Answer the word problems below

1) Kayden has a \$10 bill and wants to know if he can afford a burger and fry meal that costs \$7.99 before taxes. Calculate the total cost of the meal. Can he afford the meal?

Bonus: How much money does he have left?



2) Dexter wants to buy a video game that costs \$100 and the game costs \$65.00 before tax. How much will the total cost be?

Bonus: How much money will he have left if he has \$100?

3) Mya is thinking of purchasing a new pair of headphones that cost \$79.99. She only has \$65.00. Does she have enough money? Explain.



Math Basketball: Missing Percentages Challenge

Objective

What are we learning about?

To reinforce students' understanding and application of calculating missing percentages through engaging word problems and a fun basketball shooting game.



Materials

What you will need for the activity.

- Small ball (e.g., ping pong ball)
- Trash can to serve as the hoop
- Index cards with missing percentage word problems
- Marker or pen
- Timer or stopwatch

Instructions

How you will complete the activity.

1. Arrange the classroom so that there is enough space for multiple teams to work simultaneously. Place a desk about 6 feet away from the trash can.
2. Place a stack of index cards with problems on each desk.
3. Provide each team with a recording sheet and a pen or pencil.
4. Divide the students into teams of about five members each.
5. Each team stands in a line behind their respective desk.
6. The first student in line flips over an index card and solves the problem.
7. Once the answer is recorded, the student attempts to shoot the ping pong ball into the bin.
8. If the student makes the shot, they place a tally mark on the team's tally sheet for a point. If they miss, no tally is given.
9. The student then goes to the end of the line, and the next student steps up to the desk to repeat the process.
10. The activity continues until all index cards have been solved.
11. Once all index cards are completed, the teacher collects the recording sheets and reviews the answers with the class.
12. For each incorrect answer, the team loses one point.
13. The team with the highest number of points after deductions is declared the winner.

Index Cards

Use the following table for the game.

In a school, 52% of students participate in sports and 18% are in the band. What percentage are in neither?

A survey shows that 34% of people prefer summer and 29% prefer winter. What percentage prefer spring or fall?

A garden has flowers, bushes, and trees. 40% of the plants are flowers, and 25% are bushes. What percentage are trees?

A class of 40 students has 20% have brown eyes, and 35% have blue eyes. What percentage have other eye colors?

A bakery sells 4 types of cookies: chocolate chip, oatmeal, sugar, and peanut butter. 32% are chocolate chip, and 18% are oatmeal. What percentage are sugar or peanut butter?

In a fruit basket, 48% of the fruits are apples and 12% are bananas. What percentage are other fruits?

A book club has read 75 books this year. 52% were biographies, 18% were fiction, and 18% were non-fiction. What percentage were other genres?

At a pet store, 30% of the animals are cats, and 50% are dogs. What percentage are other animals?

A survey about favorite ice cream flavors shows 25% prefer vanilla, 15% prefer chocolate, and 35% prefer other flavors. What percentage prefer other flavors?

A teacher has 24 students. 40% of the students have completed their homework, and 30% are working on it. What percentage have not started?

In a music class, 55% of the students play the piano, and 25% play the guitar. What percentage play other instruments?

A gym has 120 members. 45% use the treadmill, and 35% use the weights. What percentage use other equipment?

Index Cards

Use the following table for the game.

A library has 300 books. 60% of the books are fiction, and 25% are non-fiction. What percentage are reference books?

A class survey shows 38% of students walk to school, and 40% bike. What percentage use other modes of transportation?

A farm has 100 animals. 35% are cows, and 45% are chickens. What percentage are other animals?

In a pizza survey, 60% of people prefer pepperoni, and 35% prefer cheese. What percentage prefer other toppings?

A clothing store sells shirts, pants, and jackets. 50% of the items sold are shirts, and 30% are pants. What percentage are jackets?

In a school of 500 students, 40% are in grade 6, and 15% are in grade 7. What percentage are in other grades?

A movie theater sold 200 tickets. 60% were for action movies, and 25% were for comedies. What percentage were for other genres?

A restaurant's menu has appetizers, main courses, and desserts. 40% of the items are appetizers, and 30% are main courses. What percentage are desserts?

In a zoo, 55% of the animals are mammals, and 30% are birds. What percentage are reptiles or other animals?

A school library has 500 books. 45% are fiction, and 40% are non-fiction. What percentage are other types of books?

A technology store sells phones, laptops, and tablets. 50% of the items sold are phones, and 30% are laptops. What percentage are tablets?

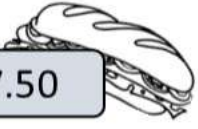
In a science class, 40% of the students prefer biology, and 35% prefer chemistry. What percentage prefer other sciences?

Name: _____

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Curriculum Connection
F1.1

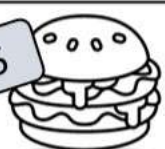
Determining Final Price With Sales Tax

Item	Taxes	Total Cost	Money Used	Change
 \$7.50	\$0.90	\$8.40		\$1.60

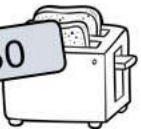
Questions

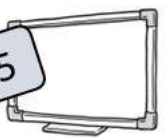
Fill in the table below

Money	Taxes	Total Cost	Money Used	Change
 \$2.50				

Money Used		Total Cost	Money Used	Change
 \$3.25				

Money Used	Taxes	Total Cost	Money	Change
 \$39.99				

Money Used	Taxes	Total Cost	Money Used	Change
 \$29.50				

Money Used	Taxes	Total Cost	Money Used	Change
 \$14.25				

Name: _____

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Curriculum Connection
F1.1

Determining Sales Tax – Multiple Items

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$10.50	 \$5.50	\$16.00	\$1.92	\$17.92

Questions

Fill in the table below

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$2.50				

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$1.25	 \$0.75			

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$3.20	 \$1.75			

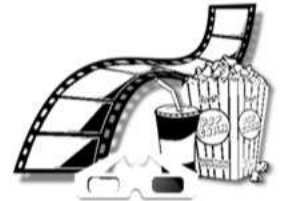
Item #1	Item #2	Total Price	Taxes	Total Cost
 \$3.50	 \$2.20			

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$7.25	 \$12.50			

Determining Final Price – Multiple Items – Word Problems**Questions**

Answer the word problems below

1) George went to the movies with his friends. He ordered a bag of popcorn for \$6.50 and a drink for \$4.75. How much was his total purchase with tax included?



Bonus: If he paid with a \$20 bill, how much will he get back?

2) Ruby went to the canteen at a track to meet. Her money is below:



She bought a hot dog for \$3.00, a bag of chips for \$1.50, and a drink for \$2.25. How much did it cost her with tax?

Bonus: How would you pay – would you use all three pieces of money?

3) Steve went to a video game store and bought a video game for \$29.99 and a controller for \$49.99. How much money total did he spend with tax?



Bonus: He paid with a \$100 bill. How much will he get back?

Challenge – Restaurant Menu

Questions

Answer the word problems below

You are just sitting down to a meal at a restaurant with your friends. The waiter hands you a menu. You plan to choose an appetizer, 1 main, and 1 dessert.



1) What things will you choose?

2) How much will the meal cost without tax?

3) How much will these things cost with tax? (12%)

4) When you finished your meal, it is customary to leave a 15-20% gratuity (tip). What percent will you leave? _____

5) What will your entire meal costs with the tax and tip included?

6) Your friend enjoys expensive things. He orders the most expensive dinner, picking the most expensive appetizer, main, and dessert. How much would it cost him with tax and a 20% gratuity?

Menu

Appetizer

Soup -----	\$4.50
Salad -----	\$8.25
Chicken Wings ----	\$9.75
Poutine -----	\$8.99

Mains

Pasta -----	14.99
Steak -----	\$25.99
Hamburger -----	\$8.99
Pizza -----	\$22.50

Desserts

Ice Cream -----	\$4.99
Chocolate Sundae ----	\$6.99
Cheesecake -----	\$3.95
Chocolate Cake -----	\$4.50

Restaurant Order – Adding Tip

Word Problems

Answer the questions below

An Italian restaurant serves the items below.



Menu	Cost
Spaghetti	\$14.50
Pizza	\$18.90
Lasagna	\$22.25
Risotto	\$19.75
Dessert - Gelato	\$5.80



1) James orders spaghetti for lunch and gelato for dessert.

- How much will James owe with sales tax (12%)?
- James adds 15% tip to the total with tax. How much will he owe?

2) Sophia brings her family to the restaurant. They order 2 pizzas and risotto.

- How much will the meal cost with sales tax (12%)?
- Sophia adds 20% tip to the total with tax. How much will she owe?

3) Evelyn and her 4 friends go to the restaurant. Each friend got a different meal and they all got gelato for dessert. Evelyn paid for the entire meal.

- How much will the meal cost with sales tax (12%)?
- Evelyn adds 18% tip to the total with tax. How much will she owe?

Introduction to Interest

What is Interest?

Interest is the amount of money earned from an investment or the cost of borrowing based on an interest rate.



Interest From Investments

We can earn interest on our investments, which means we are putting our money to work! If we invest \$100 in the stock market, we hope that one hundred dollars is worth more at the end of the year. The average interest rate return in the stock market over the last 100 years is about 10%. This means that after one year, your \$100 is now worth \$110.

Interest From Borrowing

Most people will need to borrow money to pay for things like cars, houses, or even water and electricity household necessities. When we borrow money, we pay the lender (usually a bank) interest. The amount we pay in interest depends on the interest rate. A higher interest rate will mean we pay more back in interest. For example, if we borrow \$100 with a 15% yearly interest rate, we will have to pay \$115 at the end of the year. It is important to shop around for the lowest interest rate.

Part 1 A bank pays 5% interest for your savings account – \$5 per \$100

Savings	Savings + Interest	Savings	Savings + Interest
1) \$200	\$210	5) \$1000	\$1050
2) \$450		6) \$1170	
3) \$625		7) \$1352	
4) \$932		8) \$2800	

Part 2 You pay 19% interest on your credit card – for every \$100 you borrow, you pay \$19

Debt	Debt + Interest	Debt	Debt + Interest	Debt	Debt + Interest
1) \$300	\$357	4) \$999		8) \$4230	
2) \$485		6) \$1452		9) \$5417	
3) \$712		7) \$2375		10) \$7759	

Part 3 Answer the question below

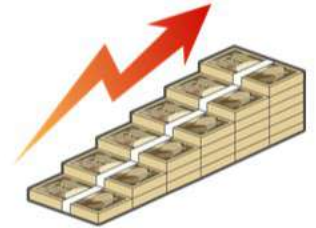
What are your thoughts on interest? Is paying a 19% interest rate fair?

Calculating Interest Rates - Investments

When dealing with interest rates, we are either paying interest or being paid interest. When we invest money in a savings account, we are paid interest. We can also invest in the stock market in hopes of being paid interest on our investment. We can calculate how much return we will get on an investment by using the following steps.

Steps to use % Button on a Calculator

- 1) Enter the investment amount
- 2) Hit the $\times$ button
- 3) Type the interest rate
- 4) Hit the $\%$ button (this will display how much earned from interest)
- 5) Click the $+$ button (this will give you the total return)



Questions Use the steps above to calculate the return on investment

#	Investment	Return on Investment	15% Interest	Total Return
1	\$28	\$1.40	\$4.20	\$32.20
2	\$37			
3	\$41			
4	\$97			
5	\$150			
6	\$370			
7	\$525			
8	\$855			
9	\$1400			
10	\$2755			

Calculating Interest Rates - Borrowing

When we borrow money, we usually have to pay interest on the total amount we borrowed. We call this amount the **principal**. Depending on the type of loan, the interest rates will vary.

Steps to use % Button on a Calculator

- 1) Enter the principal amount
- 2) Hit the + button
- 3) Type the interest rate
- 4) Hit the % button (this will display how much interest you will pay each year)
- 5) Click the = button (this will give you the total amount you need to pay back)



Question: Use the steps above to calculate the return on investment

#	Principal	5-Year Loan	Total 5-Year Loan Amount
1	\$50	\$25	\$75
2	\$85		
3	\$152		
4	\$225		
5	\$310		
6	\$485		
7	\$657		
8	\$832		
9	\$1289		
10	\$2472		

Calculating Interest

Questions

Calculate how much interest we will pay in the situations below

1) If you borrow \$600 for 6 years at an interest rate of 10%, how much interest will you pay?

b) How much in total will you pay?



2) How much interest does a \$430 investment earn at 6% over one year?

3) How much interest does an \$875 investment at 4% for six years?



4) How much interest will you have to pay if you borrow \$325 for 2 years at a 12% interest rate.

5) Jacob invested \$250 for 4 years. He earned \$50 in interest. He forgets his interest rate. He thinks it was either 5% or 10%. What interest rate did he get?



6) If you borrow \$1750 for 3 years at an interest rate of 6%, how much interest will you pay?

b) How much will you pay in total?

7) If you get a loan for \$225 000 to buy a house with an interest rate of 2%, how much interest will you pay for a 10-year loan?



8) Hanna paid \$28 of interest when she borrowed \$200. Her father said she paid 28% interest, but she says she only paid 14%. Who is correct?

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class.

Name: _____

a) Calculate the return on investment

#	Principal	10% Interest/Year	5-Year Loan	Total 5-Year Loan Amount	Principal
1	\$385				
2	\$1352				
3	\$2685				

b) Marcus earned \$90 in interest over 3 years on a \$500 investment. His cousin thinks he earned 4% interest. Is that correct? If not, what was the correct interest rate?

Name: _____

a) Calculate the return on investment

#	Principal	10% Interest/Year	5-Year Loan	Total 5-Year Loan Amount	Principal
1	\$385				
2	\$1352				
3	\$2685				

b) Marcus earned \$90 in interest over 3 years on a \$500 investment. His cousin thinks he earned 4% interest. Is that correct? If not, what was the correct interest rate?

Activity: Match the Borrowing Situation

Objective

What are we learning about?

To help students learn about responsible borrowing by matching various borrowing scenarios ("If" situations) with appropriate outcomes ("Then" situations).

Materials

What you will need for the activity.

- "If" situation cards
- "Then" outcome cards



Instructions

How you will complete the activity

1. Explain to the students that they will participate in a matching activity to learn about responsible borrowing.
2. Each student will receive one "If" situation card and one outcome card.
3. Hand out one card to each student. Make sure there is an even distribution of "If" and "Then" cards.
4. Students will move around the classroom to find the person holding the card that matches theirs.
5. When they find their match, they should sit together and discuss why their cards are a good match.
6. Once all pairs have found their match, bring the class back together.
7. Each pair will present their "If" situation and "Then" outcome to the class.
8. Discuss why the matches are appropriate and how responsible borrowing can help achieve financial goals.

"If" Situation Cards

Cut out the topics below.

If you need to buy a house...

If you want to go on a vacation...

If you need to pay for college tuition...

If you want to start a business...

If you need a car for work...

If you want to buy luxury items...

If you need to pay medical expenses...

If you want to renovate/redo your home...

If you need to 'consolidate' your debt...

If you want to invest in education...

If you need to cover unexpected emergencies...

If you want to buy a new phone...

If you need to pay for a wedding...

If you want to buy new clothes...

If you need to repair your car...

Then Outcome Cards

Cut out the topics below.

Then use an emergency savings fund or low-interest loan.

Then consolidate debt with one, personal loan.

Then get an auto loan with affordable terms.

Then avoid borrowing and save money gradually.

Then apply for education grants or scholarships.

Then save up money instead of borrowing.

Then avoid borrowing and save up over time.

Then take a home equity loan for credit.

Then use savings or an affordable loan if necessary.

Then take out a mortgage with a low interest rate.

Then save up money instead of borrowing.

Then consider saving up instead of borrowing.

Then apply for a small business loan.

Then consider a medical loan or payment plan.

Then use a student loan with a low interest rate.

Calculating Simple Interest

When we borrow money, we usually pay interest on the total amount we borrow. We call this amount the **principal**. Depending on the type of loan, the interest rates will vary.

Simple interest is interest paid on the principal amount. We can calculate simple interest by using the following formula:

Simple interest = principal x interest rate x time to pay back the loan

This will give us how much interest we will pay for our loan.

For example, if you owe \$5000 for a car loan with a 5% simple interest rate on a 5-year term. The amount of interest you will pay after the 5 years is $5000 \times 0.05 \times 5 = \1250



Part 1 Fill in the table to determine the cost of borrowing for 3 and 8 years

#	Principal	Interest Rate	3-Year Loan	8-Year Loan
1)	\$2000		\$300	\$800
2)	\$3500			
3)	\$6000	19%		
4)	\$10,000	8%		
5)	\$17,000	10%		
6)	\$25,000	4%		
7)	\$47,500	3.5%		

Part 2

Answer the questions below

1) Is it more or less costly to borrow money for longer periods of time. Explain why that might be the case.

2) Jake is borrowing \$8000 for a new car. The interest rate is 6%. He's not sure if he'll choose the 5- or 7-year term. How much will he save in interest on the 5-year term?

Calculating Simple Interest

Questions

Answer the questions below

1) If you borrow \$750 for 5 years with an annual interest rate of 8%, how much interest will you pay?

b) How much in total will you pay?



2) How much interest will you have to pay if you borrow \$525 for 2 years at a 12% annual interest rate?

3) If you borrow \$2175 for 3 years with an annual interest rate of 6%, how much interest will you pay?

b) How much will you pay in total?



4) If you get a mortgage loan for \$225 000 to buy a house with an annual interest rate of 2.56%, how much interest will you pay for a 25-year loan?

b) How much will the house end up costing you?



5) Ivy paid \$72 of interest when she borrowed \$800. Her father said she paid 9% interest, but she says she had to pay 12%. Who is correct?

Exit Cards

Cut Out Cut out the exit cards below and have students complete them at the end of class.

Name: _____

Mark

a) Calculate the return on investment

#	Principal	Interest Rate	3-Year Loan	8-Year Loan
1)		5%		
2)		16%		
3)	\$88,000	6.8%		

b) Michael is comparing two loan options for a vacation:

- Option A: \$4,000 at 6% for 5 years
- Option B: \$4,000 at 4% for 7 years

Which loan costs more in interest? Show your work.

Name: _____

Mark

a) Calculate the return on investment

#	Principal	Interest Rate	3-Year Loan	8-Year Loan
1)	\$2000	5%		
2)	\$9500	16%		
3)	\$88,000	6.8%		

b) Michael is comparing two loan options for a vacation:

- Option A: \$4,000 at 6% for 5 years
- Option B: \$4,000 at 4% for 7 years

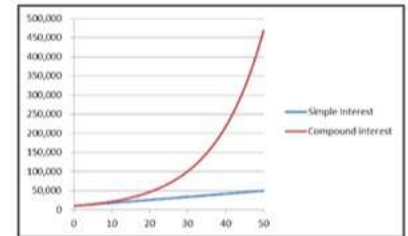
Which loan costs more in interest? Show your work.

Simple Interest vs Compound Interest

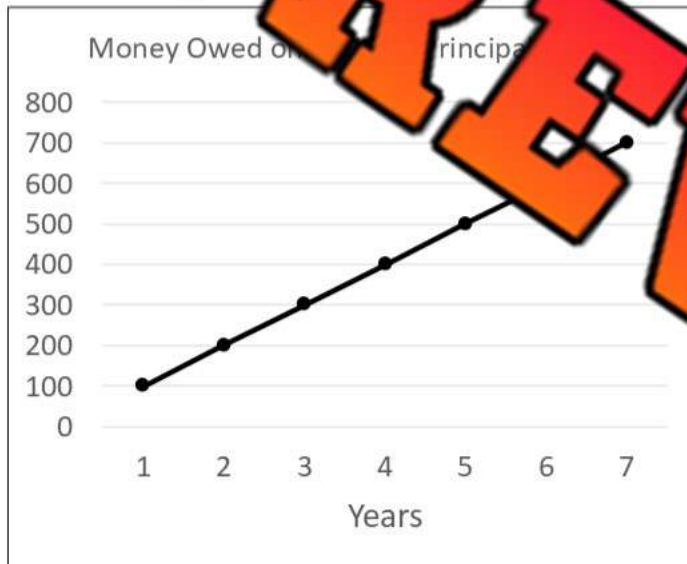
Overview - Simple Interest vs Compound Interest

Simple interest is based on the principal amount of the loan or deposit. This means the interest paid does not change. For example, if you borrow \$100 at a 5% annual interest rate, you will owe \$5 in interest each year until the loan is paid.

Compound interest is based on the principal amount and the interest that accumulates on it every period. For example, if you borrow \$100 at a 5% annual interest rate, you will owe \$5 after the first year, a total of \$105 the next year (\$5.25). The third year, you would owe \$110.25, which is \$5.51.



Question: Which graph display a simple or compound interest loan?



1) How do you know which type of loan this was? Explain

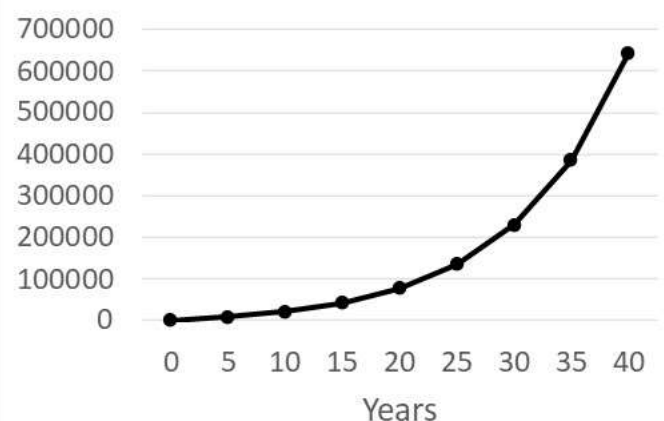
2) How much interest will be paid after 7 years?

3) Will this type of loan grow a massive amount of money over time?

1) How do you know which type of interest is being applied? Explain

2) What do you notice about the graph? Why isn't it linear?

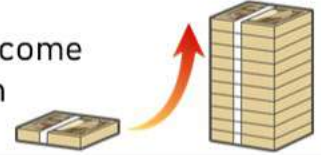
Money earned with \$100 deposit and \$100 Monthly Contributions (10%)



Compound Interest - Investing

When we invest money, we hope it will grow over time. The longer we leave an investment, the more interest the initial investment will earn, which leads to it being worth more. For example, if an initial investment of \$1000 grows 15% in a year, it will earn \$150 and be worth \$1150. If the investment keeps growing at 15% a year, the following year it will earn \$172.50 and will be worth \$1322.50.

Over the course of many years, an initial investment can grow to become a large amount! This is called compound interest, which Albert Einstein coined the "wonder of the world!"



Question: Calculate how much the initial investment grows after 5 years

#	Initial Investment	1-Year 10% Total	2-Year 10% Total	3-Year 10% Total	4-Year 10% Total	5-Year 10% Total
1	\$200			\$266.20	\$292.82	\$322.102
2	\$750					
3	\$1000					
4	\$1,500					
5	\$2,100					
6	\$3,500					
7	\$72,000					
8	\$115,000					
9	\$150,000					
10	\$500,000					

Compound Interest - Borrowing

When we borrow money, we pay interest on how much we borrow. We need to consider how long it will take to pay back the debt before we decide to borrow. Borrowing money to buy things like a house or car are essential for most people even though those debts will take a long time to pay off. Luckily, mortgage interest rates are between 2-4% and car loans are typically around 5%.

On the other hand, borrowing to buy things we don't need can lead to us using credit cards to borrow. Credit cards have a 19% interest rate. Complete the table to see how credit card debt can become overwhelming with compound



Question: Fill in how much interest is paid after borrowing for up to 5 years

#	Principal Borrowing Amount	1-Year 19% - Total	2-Year 19% - Total	3-Year 19% - Total	4-Year 19% - Total	5-Year 19% - Total
1	\$100			\$168.52	\$200.53	\$238.64
2	\$250					
3	\$700					
4	\$1250					
5	\$2000					
6	\$2500					
7	\$2800					
8	\$3250					
9	\$5000					
10	\$15,000					

Compound Interest – Online Tool

Calculating compound interest is a complicated process. Fortunately, we can use online compound interest calculators to help us with the math. Using these tools helps us understand the importance of compounding interest, as it can get us in a lot of debt or earn us a lot of money.

Directions:

- 1) Search online: compound interest calculator
- 2) Type in the values from the table below to determine how much your investment or debt will grow.
- 3) Use the calculator to determine how much interest is compounded monthly for all your results



Part 1 Fill in the table below

#	Principal (Initial investment or borrowing amount)	Monthly Contribution	Interest Rate	Years to Grow	Total Value of Debt or Investment
1	\$100	\$200	7%	45	
2	\$500	\$50	8%	40	
3	\$2000	\$200	10%	30	
4	\$25	\$25	6%	25	
5	\$5000	\$100	9%	30	
6	\$8000	\$250	8%	20	

Part 2 Answer the questions below

1	What amount could you contribute now and each month? How much would you have in 40 years if you started today assuming a 10% return?	
2	Alex and Jeff are both 14 years old. Alex plans to contribute \$10 today and \$25 every month for the next 40 years. Jeff has more money now, so he will contribute \$2000 today, but only \$20 each month for the next 40 years. Assuming a 10% interest rate, who will earn more?	
3	Sam has two options for a compound interest loan. Option A is borrowing \$500 for 5 years with a 7% interest rate and option B is borrowing \$500 for 4 years with an 8% interest rate. Which will cost him more money?	

Compound Interest – Online Tool

Use an online compound interest tool to learn more about how you can reach different financial goals.

For example, to earn \$250,000 in 25 years, you could invest \$0 initially and add \$200 each month. At the end of the 25 years, you'll have \$267,578 with a 10% interest rate.



Part 1

Fill in the table with the minimum amount of contributions needed to reach the financial goal. Do not use an interest rate above 10%.

#	Principal (Initial investment or borrowing amount)	Regular Monthly Additions	Interest Rate	Investment Exact Value
1	\$2000	25	10%	\$2,117
2	\$5000			
3	\$25,000	7		
4	\$50,000	10		
5	\$100,000			
6	\$200,000			
7	\$500,000			
8	\$750,000			
9	\$1,000,000			
10	\$10,000,000			

Part 2

Answer the questions below

1) What did you learn about compound interest? Can small regular investments make a big difference in your savings?

2) If you invested the cost of a drink each day (\$2.50/day) for 30 years with an interest rate of 10%, how much would you have in 30 years?

Loans

A **loan** is an amount of money that is expected to be paid back with interest. When people get a loan, they are borrowing money that is not theirs.



To get a loan, people apply to a lender asking for a certain amount of money. The lender – often a bank, will need to investigate whether the person can afford to pay back the loan. They will look at how much income they earn, assets they own, and how much debt they already have.

People can apply for a fixed rate loan or a variable rate loan. A **fixed rate** loan has an interest rate that stays the same for the period of time chosen – typically 5 years. You can get a longer term, but the interest rate will rise the longer you request. These loans are safe because you won't be surprised by the payment you need to make as the rate and payment stay the same. Fixed rates are usually slightly higher than variable but less risky. A **variable rate** loan has an interest rate that changes whenever the bank changes their prime rate. The prime rate is the base interest rate that all loans are based on. Usually all five big banks set the prime rate. When they give any loan, they describe the loan as prime plus a certain number of percentage points. For example, a low mortgage rate might be prime plus 1%, whereas an expensive car loan might be prime plus 5.5%. In 2021, the prime rate was 2.45%, the lowest it has been since 2008. A variable rate could change each day as the prime rate changes. It can be a bit riskier.



Part 1 If the prime rate is 2.45%, calculate the interest paid for 1 year

Loan Amount	Prime + 0.5%
1) \$5000	
2) \$15 250	
3) \$250 000	

Loan Amount	Prime + 4%
4) \$25 000	
5) \$42 250	
6) \$66 750	

Part 2 Compare the fixed rate (5%) and variable-rate loans over the course of 5 years

1)	Loan	After 1 Year (2.45 + 2%)	After 2 Years (2.75 + 2%)	After 3 Years (3.5 + 2%)	After 4 Years (4.2 + 2%)	After 5 Years (5.1 + 2%)
Fixed Rate (5%)	\$1500					
Variable Rate	\$1500					

2)	Loan	After 1 Year (2.45 + 1.5%)	After 2 Years (3.65 + 1.5%)	After 3 Years (4.5 + 1.5%)	After 4 Years (5.5 + 1.5%)	After 5 Years (3.45 + 1.5%)
Fixed Rate (6%)	\$9200					
Variable Rate	\$9200					

Choosing a Loan

1) Scenario

Jill is on a fixed income, meaning she earns the same each month - \$3000. She needs a loan to pay for a condo. She is worried the loan could get too expensive. She will pay off the loan over the next 25 years.


Fixed Rate – 3 Years
Fixed Rate – 5 Years
Fixed Rate – 10 Years
Variable Rate

3.1%

3.5%

3.9%

 Prime + 0.5%
(Prime = 2.5%)

Which loan should Jill choose? Explain why.

2) Scenario

Josh has a large amount of savings. He doesn't mind taking risks to save money. He needs a loan for a new house that he will pay off over the next 20 years.


Fixed Rate – 3 Year
Fixed Rate – 5 Year
Fixed Rate – 10 Years
Variable Rate

2.6%

3.1%

3.9%

 Prime - 0.4%
(Prime = 2.4%)

Which loan should Josh choose? Explain why.

3) Scenario

Julian signed a contract to work for a business for the next 5 years. He will have a fixed income until his contract is up. His job pays him well, but he's worried he won't find a job quickly after his contract is up. He needs a loan for a new car. He will pay the car off over the next 6 years.


Fixed Rate – 2 Years
Fixed Rate – 4 Years
Fixed Rate – 6 Years
Variable Rate

4.6%

5.2%

5.7%

 Prime + 2.5%
(Prime = 2.6%)

Which loan should Julian choose? Explain why.

Blog Post: Understanding Loans

What You Need to Know About Loans

Date: June 14, 2024

Author: Sarah Thompson

5-minute read

Have you ever wondered how people buy things they can't afford right away, like cars or houses? It's all about loans! Imagine you want to buy the coolest new bike, but you don't have enough money. What do you do? You might ask to borrow some from your parents or a friend. That's what a loan is—borrowing money with a promise to pay it back. You can get loans from financial institutions, or even family and friends.

When you take a loan, you need to sign an agreement. It's like making a pinky promise, but on paper. This agreement often includes something called "interest." Interest is extra money you pay on top of what you borrowed. For example, if you borrow \$100 with a 5% interest rate, you'll pay back \$105. That's the bank's way of saying, "Thanks for borrowing from us!"

Before you jump into borrowing money, it's important to know the terms of the loan, including **interest rate** (the extra percentage you pay on the loan), **repayment period** (how long you have to pay it back), and **monthly payment** (the sum you pay each month). People who understand their loan terms are less likely to have financial problems. So, always read the fine print! Loans can be a useful tool, but they come with responsibilities. Make sure you can repay on time to avoid extra fees or damage to your credit score.

Till next time,
Sarah Thompson

Comments:



Emily Tan – June 14, 2024

Great post, Sarah! Loans are like a financial superhero when you need them. Just remember to read the terms carefully.

Like Reply 11h ago



Janice Dae – June 14, 2024

I see your point, Emily, but loans can also be tricky. The Financial Consumer Agency of Canada reported that 40% of people struggle with loan repayments. It's crucial to only borrow what you can afford to pay back. Be cautious!

Like Reply 8h ago

True or False

Is the statement true or false?

1. Loans are 'borrowed money' with a promise to repay.	True	False
2. Interest is extra money paid on top of the borrowed money.	True	False
3. A 5% interest on \$100 means paying back \$110.	True	False
4. Loans from family do not require repayment.	True	False
5. Only banks can give out loans.	True	False

Question

Answer the questions below.

1) Why is it important to read the terms on loan agreements?

2) What should you consider before borrowing money?

Word Search

Find the words in the wordsearch.

Loan	Agreement
Borrow	Debt
Repay	Payment
Interest	Finance
Bank	Security
Credit	Rate

C R A T E I B U K Q M Y E V
 F F T D J F A K P Y W T D U E
 I D Y P G K Y E W C R E D I T
 N E W C X Q B A N K W M M A I
 A B O L B W G S E C U R I T Y
 N T R A O R I N T E R E S T I
 C H R R P A Y M E N T P Z B S
 E O O W E H N P V F L A E S Z
 K A B T Z X X A Z M D Y O W U
 M V B P A G R E E M E N T Z W

Activity: Applying for a Loan

Objective

What are we learning about?

To help students understand the process and considerations involved in borrowing money by simulating a loan application scenario.



Materials

What you will need for the activity.

- Role-play Scenario Cards (provided below)
- Notepads and pens
- Name tags (optional)

Instructions

How you will complete the activity.

1. Pair up students. One student will play the role of the loan officer, and the other will be the applicant.
2. Provide each pair with a scenario card that outlines a situation where the applicant needs to apply for a loan.
3. Give students a few minutes to read their scenarios and think about their roles. The loan officer will prepare questions to ask the applicant, and the applicant will prepare to explain their need for the loan and their repayment plan.
4. The applicant approaches the loan officer and explains their situation, why they need the loan, and how they plan to repay it.
5. The loan officer asks questions to understand the applicant's situation better and to assess the risk and feasibility of granting the loan.
6. After each role-play, discuss as a class what went well, what challenges were faced, and what considerations are important when applying for, or granting, a loan.

Scenario Cards

Cut out the topics below.

Scenario

- **Applicant:** You need a loan to buy a new bicycle to get to school. Explain why you need the bike and how you will repay the loan with your weekly allowance.
- **Loan Officer:** Ask questions about the applicant's allowance, other expenses, and why the bike is necessary.
- **Applicant:** You need a loan to buy supplies for a school project. Explain the project and how you plan to repay the loan after the project is complete.
- **Loan Officer:** Ask questions about the project details, the cost of supplies, and the repayment plan.
- **Applicant:** You need a loan to help your family with an unexpected car repair. Explain the situation and how you will contribute to repaying the loan.
- **Loan Officer:** Ask questions about the car repair, the family's financial situation, and the repayment plan.
- **Applicant:** You want a loan to start a business selling homemade crafts. Explain your business plan, how you will make and save money to repay the loan.
- **Loan Officer:** Ask questions about the business, potential earnings, and expenses.
- **Applicant:** You need a loan to buy new sports equipment for your team. Explain why the equipment is needed and how you plan to raise money to repay the loan.
- **Loan Officer:** Ask questions about the sports team, the cost of equipment, and the fundraising plan.
- **Applicant:** You need a loan to pay for a school trip. Explain why the trip is important and how you will raise money to repay the loan.
- **Loan Officer:** Ask questions about the school trip, the cost, and the repayment plan.
- **Applicant:** You need a loan to buy a laptop for schoolwork. Explain why you need the laptop and how you will save money to repay the loan.
- **Loan Officer:** Ask questions about the necessity of the laptop, the cost, and the repayment plan.
- **Applicant:** You need a loan to buy birthday presents for your family. Explain why the presents are important and how you plan to repay the loan with your allowance.
- **Loan Officer:** Ask questions about the importance of the presents, the cost, and the repayment plan.

Case Study: George Washington Carver's Education Loan

George Washington Carver's Big Decision

George Washington Carver had always been curious about plants. Growing up, he dreamed of becoming a scientist. But there was one big problem—he didn't have enough money to go to college. Determined to achieve his dream, George decided to borrow \$100 for his education at Iowa State Agricultural College.

Taking out a loan was a big decision for George. He knew that borrowing money meant he would have to pay it back, with interest. George carefully thought about the risks and benefits. On the one hand, a loan would help him achieve his dream of becoming a scientist. On the other hand, if he couldn't repay the loan, he might end up in debt. Despite the risks, George decided to take out the loan. He promised himself he would work hard to repay it.

George spent long hours studying and working part-time to earn money. His determination paid off. He graduated with a degree in agriculture and went on to become a famous scientist, making important discoveries about corn, soybeans, and sweet potatoes.

In George's time, taking out a loan to get an education was a big step, just as it is today. While loans can help you achieve your dreams, it's important to understand the terms and plan how to repay them. Just like George, hard work and careful planning can help you succeed.

Taking out a loan helped George Washington Carver become one of the most respected scientists of his time. His story shows that with determination and hard work, you can turn your dreams into reality, even if it means taking on a bit of risk.



Question

What risks and benefits did George think about before taking out the loan?

Arrange

In chronological order, arrange the events in George Washington Carver's life, with 1 being the oldest event and 10 being the most recent.

George borrowed \$100 for his education.
George became a scientist.
George attended Iowa State Agricultural College.
George worked part-time jobs to earn money.
George graduated with a degree in agriculture.
George carefully thought about the risks and benefits of the loan.
George studied long hours to succeed in his studies.
George made important discoveries about crops like corn and sweet potatoes.
George promised himself to work hard to repay the loan.
George became one of the most respected scientists of his time.

Diary

Imagine you are George Washington Carver. You are unsure if the loan for education will be granted, and you feel anxious. Write a short diary entry about this.

Exit Cards

Cut Out

Cut out the exit cards below and have students complete them at the end of class

Name: _____

Mark

/5

Is the statement true or false?

1) George Washington Carver borrowed money for college without thinking about the consequences.

T

F

2) George promised to repay his loan by working hard and balancing both school and part-time jobs.

T

F

3) The loan George took helped him become a scientist known for discoveries about animals and insects.

T

F

4) The case study suggests that taking out a loan guarantees future success.

T

F

5) According to the passage, it's important to understand loan terms before borrowing money for education.

T

F

Name: _____

Mark

Is the statement true or false?

1) George Washington Carver borrowed money for college without thinking about the consequences.

T

F

2) George promised to repay his loan by working hard and balancing both school and part-time jobs.

T

F

3) The loan George took helped him become a scientist known for discoveries about animals and insects.

T

F

4) The case study suggests that taking out a loan guarantees future success.

T

F

5) According to the passage, it's important to understand loan terms before borrowing money for education.

T

F

Memory Game: Understanding Loans

Objective

What are we learning about?

To help students learn and remember key concepts about loans through a fun and engaging memory game.

Materials

What you will need for the activity.

- Memory Game cards (provided)
- Flashcards with terms and definitions related to loans
- A flat surface like a table or floor to lay out the cards.



Instructions

How you will complete the activity

1. Divide the class into groups of 3 or 4. Each group will receive a set of Memory Game cards (provided).
2. Optional: have students match the terms with their definitions prior to playing the memory game (with the cards facing up). This will help them to learn the terms and definitions. Take these up as a class to ensure everyone understands the correct matches.
3. Have each group lay all the cards face down in a grid on a table.
4. The students take turns flipping over two cards at a time, trying to find a matching term and its definition.
5. If a student finds a match, they remove those cards from the grid and keep them.
6. If the cards do not match, they are turned back over, and the next student takes a turn.
7. The game continues until all the cards have been matched.
8. After the game, review the terms and definitions with the class.
9. Discuss why these terms are important to understand loans.

Cards

List of terms related to loans.

Terms	Definition
Loan	Money borrowed that must be repaid with interest.
Interest	The extra money paid for borrowing money.
Principal	The original amount of money borrowed.
Collateral	An asset that a borrower offers to a lender to secure a loan.
Credit Score	A number that indicates a person's ability to repay a loan.

Cards

List of terms related to loans.

Terms	Definition
Repayment	The act of paying back borrowed money.
	The length of time you have to repay a loan.
Lender	The person or institution that provides a loan.
Borrower	The person who receives and must repay the loan.
Default	Failure to repay a loan.

Cards

List of terms related to loans.

Terms	Definition
Fixed Interest Rate	An interest rate that does not change over the life of the loan.
Variable Interest Rate	An interest rate that can change over time.
Installment	Regular payments made to repay a loan.
Grace Period	A set time after the due date during which a payment can be made without penalty.
Loan Agreement	A contract between the borrower and lender outlining the terms of the loan.

Activity: Loan Comparison Chart

Objective

What are we learning about?

Students will gain an understanding of different types of loans (student loans, business loans, mortgages) by analyzing their interest rates, repayment terms, and associated risks.

Materials What you will need for the activity.

- Blank loan comparison chart templates
- Short story describing details of loans
- Mock loan application form



Instructions

How you will complete the activity

1. Organize the class into small groups and distribute a loan comparison chart template to each group.
2. Provide each group with a short story about Sarah, Tom, and Alex, and each take out different types of loans (student loans, business loans, mortgage).
3. Allow each group time to read the story and discuss the details. They should focus on the interest rates, repayment terms, and associated risks with each type of loan.
4. Each group will use the information from the story to fill out their loan comparison chart. They should note the key features of each loan type.
5. Each student will fill out a mock loan application form for one of the loans discussed in the story. They should include details such as the loan's purpose, their repayment plan, and how they will manage the associated risks.

Story

Read the short story carefully. Next, fill out the loan comparison chart based on the details provided in the story.

Sarah wanted to go to college to become a teacher. She decided to apply for a student loan. She learned that student loans typically have lower interest rates because they are meant to help students afford education. Sarah found out that she wouldn't have to start repaying her loan until six months after she graduated, giving her time to find a job. However, she knew her credit score might be affected if she couldn't repay the student loan.

Tom dreamed of owning a bakery. To turn his dream into reality, he needed a business loan. He learned that business loans usually have higher interest rates compared to student loans. Tom knew they carry more risk for the lender. Tom's loan required monthly payments right away. He had to present a detailed business plan to the bank to show how he would make the money. He also had to use his house as collateral: if he couldn't repay the loan, he would risk losing his home.

Emma and her family wanted to buy a house. They needed a mortgage. Mortgages have lower interest rates than business loans but are considered higher risk than student loans. Emma learned that mortgages are typically long-term loans lasting 30 years. Her monthly payments would be spread out over many years, making them more manageable. However, if Emma couldn't make repayments, the bank could take the house back, which is called foreclosure.

Summary of risks:

The friends discussed their loans over coffee, sharing what they had learned. Sarah's loan seemed manageable because of the lower interest and delayed repayments, but she knew she had to find a job quickly after graduation. Tom's loan was riskier with higher interest and immediate payments, but he was excited about his business plan. Emma felt confident about her mortgage because of the fixed monthly payments but was aware of the long-term commitment.

Comparison Chart

Fill out this comparison chart based on the story.

Loan Type	Interest Rate	Repayment Terms	Risks
What did you find about student loans?			
What did you find out about a business loan?			
What did you find out about a mortgage?			

Name: _____

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Curriculum Connection
F1.1

Loan Application Form

Applicant Information

Full Name	
Age	
Address	
Parent/ Guardian Name	
Parent/ Guardian Phone	

Loan Details

Purpose of Loan	
Amount Requested	\$
Interest Rate	
Repayment Term	(Circle one) Affect credit score / Risk of losing home / No impact / No risk of losing house back

Income Information

How do you earn money? (e.g., allowance, chores):	
Monthly Income	\$

Expenses (what you spend on) and Debt (what you owe someone)

Monthly Expenses:	\$
Debts (if any):	

Name: _____

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Curriculum Connection
F1.1

Repayment Plan

How do you
plan to repay
the loan?

Risk Management

How will you
handle any
problems
repaying the
loan?

Additional Information

Any other
information or
comments:

Applicant Signature

Signature

Date

Gross vs Net Income

What is Gross Income?

Gross income is all the money you earn. For most people, their income comes from their work, but there could be other sources of income, such as lottery winnings, interest earnings, and the selling of assets and investments.



What is Net Income?

Net income is how much income is left after paying for non-negotiable expenses. For adults, taxes and retirement contributions are the most common costs.

Income Tax

Everyone who has income pays income tax. **Income tax** is a percentage of income that is paid to the government. The more income you earn, the more income tax you will pay.

An Example

For example, the average Canadian earns \$54,000 in gross income yearly. Earning this much means you will pay \$12,113 in income tax. This means the average Canadian takes home \$41,887 in net income. Someone with a gross income of \$100,000 will pay \$27,084 in tax for a net income of \$72,916.

Questions

Answer the questions.

1)	Alex earned \$38,413 from his employment. He also won \$12,000 in the lottery. He paid \$9340 in taxes. What is his net income?	
2)	Robert earned \$79,575 from his job. He sold a house he owned and received an additional \$95,350. He paid \$53,538 in taxes. What is his net income?	
3)	Suzanne earned \$145,094 from her salary and from selling investments. She decided to contribute \$45,095 towards her retirement to put her gross income under 100,000. She paid \$27,084. What is her net income?	
4)	Claire has her own business that earned \$278,500 last year. She paid \$100,000 in business expenses and paid the rest of the money to herself. In the end, she paid \$51,320 in taxes. What is her net income?	
5)	Zack earned \$134,048 from his job and from selling 500 shares of a stock he owned. He contributed \$25,000 to his retirement. His net income is \$81,304. How much income tax did he pay?	
6)	Willow earned \$51,530 from her job, \$34,520 from her side business and she sold stocks she owned for \$41,430. She paid \$42,405 in taxes. How much gross income did she earn?	
7)	John is a professional athlete who earned \$6,450,000 last year. He also earned \$650,000 for endorsements he did. He paid \$3,712,084 in taxes last year. How much net income did he earn?	

Income Tax – Gross/Net Income

Income Tax

You will pay more income tax when you earn more gross income. The table shows how much income tax on average is paid for each income tax bracket.

Although this is not exactly how accountants determine how much income tax you pay, it gives a good idea of how income tax works. In actuality, if you earn \$70,000, you will pay 7.5% on \$20,000, 15% on \$20,000, 21% on \$40,000, and 24% on \$10,000.

To get a better idea, you can use the average tax rates shown in the table. For example, if you earned \$83,540, you would pay 83.54% of \$20,000 in income tax. This would be \$16,708.40 in income tax. This would leave you with a net income of \$66,831.60.

Gross Income Bracket

Avg. Tax Rate

\$0 - \$20,000

7.5%

\$20,000 - \$40,000

15%

\$40,000 - \$60,000

21%

\$60,000 - \$80,000

24%

\$80,000 - \$100,000

26%

\$100,000 - \$150,000

28%

\$150,000 - \$250,000

31%

\$250,000 - \$500,000

39%

\$500,000+

50%

Questions

Determine how much income tax would be paid and the net income for each gross income.

	Gross Income	Income Tax	Net Income
1)	\$95,542	\$16,708.40	\$78,833.60
2)	\$42,826	\$6,426.50	\$36,400.50
3)	\$91,542	\$16,708.40	\$74,833.60
4)	\$105,635	\$16,708.40	\$88,926.60
5)	\$474,268	\$16,708.40	\$457,559.60
6)	\$3,547,852	\$16,708.40	\$3,531,143.60

Word Problem

Answer the question below

Peter owns a company that made high earnings last year. He ended up earning \$273,049 but doesn't want to pay too much tax. He is debating contributing some money to his retirement so that he can bump down to the next lowest tax bracket.

a) How much will he need to contribute to his retirement to bump down?

b) How much tax would he pay if he does contribute?

c) How much will he pay if he doesn't?

d) How much will he save on his taxes?

Name: _____

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Financial Literacy – Unit Test

Part 1

Calculate the sales tax and total price

#	Product Price	Sales Tax (12%)	Total Price
1	\$21.50		
2	\$23.00		
3	\$28.75		
4	\$4.25		
5	\$5.00		

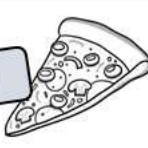
Part 2

Use the table

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$3.50	 \$4.20			

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$1.50	 \$1.00			

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$4.50	 \$2.25			

Item #1	Item #2	Total Price	Taxes	Total Cost
 \$2.50	 \$2.75			

Part 3

Answer the questions below

1) George has a \$10 bill and wants to know if he can afford a burger and milk shake that costs \$7.50 before taxes. Calculate the total cost of the meal after adding 12% tax. Can he afford the meal?

Bonus: How much money does he have left?



2) Luis wants to buy a new video game controller. He has \$100 and the controller costs \$57.00 before tax. How much will the controller cost with a 12% tax?

Bonus: How much money will he have left after buying the controller?



Part 4

A bank pays you a 5% interest rate for your savings account - \$5 per \$100

Savings	Savings + Interest
1) \$200	
2) \$550	
3) \$725	

Savings	Savings + Interest
5) \$1365	
6) \$1952	
7) \$2382	

Part 5

You pay 19% interest on your credit card - for every \$100 you spend, you owe \$119

Debt	Debt + Interest
1) \$200	
2) \$455	
3) \$742	

Debt	Debt + Interest
4) \$1099	
6) \$1575	
7) \$2525	

Part 6

Find how much interest is earned on the investment after periods of time

#	Initial Investment	1-Year 10% Total	2-Year 10% Total	3-Year 10% Total	4-Year 10% Total	5-Year 10% Total
1	\$300					
2	\$5000					
3	\$1					

Part 7

How much do you end up owing after 5 years?

#	Initial Borrowed Amount	1-Year 19% Total	2-Year 19% Total	3-Year 19% Total	4-Year 19% Total	5-Year 19% Total
1	\$300					
2	\$1300					
3	\$4500					

Part 8

Which loan should Warren choose?

Scenario	Warren is earning a high income from his job. He has a lot of savings and investments. He likes taking risks, especially if it earns or saves him money. He needs to borrow money to buy a house. He will pay the loan off in the next 25 years.			
Fixed Rate – 3 Years	Fixed Rate – 5 Years	Fixed Rate – 10 Years	Variable Rate	
2.6%	3.1%	3.7%	Prime – 0.4% (Prime = 2.4%)	
Which loan should Warren choose? Explain why.				