

7.1 MAKING AND SAVING MONEY

Name: _____

Block _____



In this unit we'll be applying your math and literacy skills to help you make smart decisions with your money.

Using the table below brainstorm ways someone your age can make money, what they might spend their money on and what they might be saving for:

Making Money	Spending Money	Saving Money

A) CALCULATING INCOME:

What is income?

What are other ways people can be paid?

Salary	
Commission	
Wages	
Piece Work	

Example #1: Salary

A worker with an annual salary of \$42,600 is paid weekly. Her work week is 40 hours.

- What is her income every week (*don't worry about tax and deductions... we call this **gross income***)
- What is her hourly pay rate?
- If her overtime pay rate is ***"time and a half"*** what does she make working eight hours overtime during one week?

(PRACTICE

Anna receives a yearly salary of \$48 600 by equal payments every two weeks. Her regular workweek is 37.5 hours, with time and a half for overtime. During a two week period, Anna worked 6 hours overtime.

- What is Anna's hourly rate of pay?
- What is Anna's gross pay for the two week period?

Example #2: Commission

April's commission rate in a furniture store is 8%. She received a commission of \$415 from the sale of a bedroom suite. How much did the bedroom suite cost?

PRACTICE

Lily works in a women's clothing store. She receives a weekly base salary of \$420, plus a commission of 7.5% on all weekly sales over \$5500. If Lily had sales of \$7250 for the week, what is her gross income for that week?

Example #3: Wages

Jared babysits his neighbours' child three days a week after school. He earns \$9.50/hour. The following table is a tracking sheet of his hours each week:

Day	Hours
1	3 hours
2	4.5 hours
3	3 hours

Jared is saving for an upcoming concert and ski trip with school. Each week he saves 25% of his earnings for the concert tickets and 40% for the trip.

- What is Jared's weekly income?
- How much money does he save toward the concert each week?
- How much does he save toward the ski trip each week?
- How much is left for saving or spending each week?

PRACTICE

June works as a carpenter for a large construction company. Her regular work week is 40 hours, with an hourly pay of \$20.65 and time and a half for overtime. If June worked 44.5 hours last week, what is her gross pay?

Example #4: Piece Work

One of the thirteen product stages in producing parkas is installing the zipper. An experienced seamstress needs 20 minutes on average to sew a zipper to a parka, and is paid \$6.20 per zipper. What is her weekly pay if she has a 35 hour workweek?

PRACTICE

World famous Cowichan sweaters retail at \$250 to \$500. The knitter of the sweater receives 60% of the retail price. The length of time to knit a sweater varies between 20 to 36 hours, depending on the size of the sweater and the design. Sweater A takes 26 hours to knit and sells for \$489. Sweater B takes 22 hours to knit and sells for \$429. How much do the knitters receive for each sweater, and how much did they make per hour?

B) WORKING WITH EXPENSES:

What is an expense?

Example #2:

Jade works at an eyeglass store on Saturdays. She earns \$252.35 per month. Jade pays \$45/month for her cell phone, \$88/month for a transit pass and \$50/month for skating lessons. If Jade wants to save \$300 for a new tablet and she saves 40% of her pay cheque after expenses each month, how long will it take for her to save the money?

PRACTICE

1. Calculate the amount of money earned for someone who works 15 hours a week at a rate of \$13.85/hour.

2. Greg makes \$225.75 each week. How much does he make in a month? If he saves 20% of his pay cheque each week, how much will he save in one year?

3. If your salary after taxes and deductions is \$34510 per year, what is your pay on each pay cheque for the different time periods below?
 - a. monthly
 - b. semimonthly
 - c. biweekly
 - d. weekly

7.2 Accounts & Interest

Name: _____

Block _____

A) BANKING TERMINOLOGY....

Bank Account Types:

Chequing Account

Savings Account

What is interest?

There are a couple of types of interest...



i. The fee _____ or credit union when you borrow money from them. *For example, a loan, or a credit card.*

ii. Interest is also the fee a bank will _____ to keep your money in a savings account at that bank. (generally around 0.1% monthly)

Activity				
Date	Description	Credits	Debits	Balance
05/21/2012	Beginning Balance			\$100.01
05/21/2012	ATM Withdrawal	\$0.00	-\$23.00	\$77.01
	Transaction Fee: \$ 3.00			
05/31/2012	Direct Deposit	\$100.00	-\$0.00	\$177.01
06/15/2012	Direct Deposit	\$100.00	-\$0.00	\$277.01
06/20/2012	ACH Deposit	\$4,000.00	-\$0.00	\$4,277.01
06/20/2012	Interest Earned	\$0.10	-\$0.00	\$4,277.11
06/20/2012	ATM Fee Reimbursement	\$3.00	-\$0.00	\$4,280.11
06/20/2012	Ending Balance			\$4,280.11

Service Charge:

A service fee may be charged by a bank for taking care of your money.
What are some examples of when a service fee might be charged?

An **automated teller machine**, or _____ is a machine used for common banking transactions with a debit card that has its own PIN (_____)

A **transaction** refers to _____

Bank statements are a "*record of transactions*".

A **deposit** is a transaction that puts money _____ your account.

What is another word for a deposit? _____

What are some *examples of deposits*?

A **withdrawal** is a transaction that _____ your account.

What is another word for a withdrawal? _____

What are some *examples of withdrawals*?

B) ANALYZING BANK STATEMENTS

Below is an example of a bank statement:

Date	Details	Debits (-)	Credits (+)	Balance
Jan 1	Direct deposit		207.21	207.21
Jan 2	Cash deposit		25.00	232.21
Jan 5	ATM withdrawal	40.00		192.21
Jan 12	ATM charge	2.50		189.71
Jan 14	Silvercity	23.25		166.46
Jan 15	Direct deposit		223.47	389.93
Jan 21	Fujiya	12.29		377.64
Jan 23	Starbucks	8.97		368.67
Jan 27	Uptown	79.88		289.79
Jan 31	Interest		0.01	289.80
Jan 31	Account fee	6.50		283.30

What kind of information is contained in a bank statement?

1. What is the opening balance?
2. What is the closing balance?

3. What is the total of the credits? What is the total of the debits? Which do you think should be greater?

4. How many transactions (*this includes deposits and withdrawals*) were performed during the month of January?

5. If the first five transactions are covered under an account fee of \$5/month, how much did each of the remaining transactions cost?

0) CALCULATING SIMPLE INTEREST

Formula:

$I =$

$p =$

$r =$

$t =$

INTEREST RATE

SIMPLE INTEREST

PRINCIPAL

Example 1:

1. You decide to invest \$500 from your savings. You have two options.

Option A: Lend it to your parents for 1 year at an interest rate of 5%.

Option B: Invest it at a bank that pays a simple interest of 6% for 3 years.

a) What amount of interest will you receive with each option?

b) Describe the advantages of choosing each option.

Example 2:

How long would you need to invest \$750 at an interest rate of 3% to earn \$50 in interest?

Example 3:

What amount of principal would you need to invest to earn \$25 in interest over two years at an interest rate of 4%?

Example 4:

If you earned \$325 in interest over 2 years at a rate of 2.5% what was the value of the principal that you invested?

PRACTICE

- 1) You borrow \$100.00 from your aunt. She says she will charge you 0.5% simple interest and give you 1.5 years to pay her back. How much will you owe her in total?

- 2) Stephan spent \$980 on his credit card 12 months ago and has not paid it off yet. If his credit card charges him a simple interest of 19%, how much does Stephan owe now?

7.3 Budgets

Name: _____

Block _____

WARM-UP QUESTIONS: *treat this as a "quiz" try to do them on your own and without your notes...this will give you a good idea of where you're at!*

1. Calculate the weekly income for the following people:

- a. A dentist who makes \$85/hour who works 40 hours per week.
- b. A student making minimum wage, \$12.65 for their first job at a bakery working 20 hours per week.
- c. An electrician who makes \$38/hour for the first 35 hours of work and then time and a half for any additional hour. Calculate the electrician's income if they worked 45 hours in one week.

2. Using the base formula $I = P \times r \times t$ calculate the following:

- a. The amount of interest earned on an investment of \$500 at a rate of 12% invested for 3 years.
- b. The amount of principal needed to earn \$48 of interest when invested at a rate of 4% for 5 years.
- c. The amount of time needed for a principal of \$1500 invested at a rate of 6% to earn \$100 in interest.

With a partner discuss what a **budget** is and write a definition below:

What are fixed expenses?

Examples:

What are variable expenses?

Examples:

Balanced budget - a budget in which the total income is equal to the total expenses

WHEN DEVELOPING A BUDGET THERE ARE 3 THINGS TO KEEP IN MIND:

1. _____ : for at least a month, record everything you spend, even a purchase as small as a coffee. At the end of one month, specific spending habits will become obvious. These spending habits will allow you to develop an accurate budget you can stick to!
2. _____ : for most high school students this will vary. Especially if you do not have a regular part time job. This could include things like babysitting, delivering newspapers, an allowance, etc. Try to make a budget based on the _____ amount of money you are likely to make during the month.
3. _____ : fixed expenses are the same each month, such as car payments, subscriptions, etc. Variable expenses can change each month, such as electricity and phone bills, cost/money spent on food or entertainment. If you track your expenses closely, it is possible to come up with an accurate estimate-best to estimate high to be safe!

Needs Versus Wants

Needs: What is necessary for survival. For example food, water, shelter, clothing, education, health care, safety and security.

Wants: The desire for things that are not necessary, but which add comfort and pleasure to our lives; something that would be nice to have.

Peer Pressure: People buy goods because their friends or neighbours (peers) have them. Sometimes people buy expensive items even when they can't afford them.

To tell if something is a WANT or a NEED.

	Yes	No
Can I live without this?		
Can I work without this?		
Would other people say this is a WANT?		

If you answer no to any question, it is a NEED. If you answer yes to all 3 questions, it is a WANT.

Budget Worksheets

Since October, Andrea has been trying to follow the monthly budget she created below:

Item	Income (+)	Expense (-)
Income from work and allowance of \$40	\$400	
Phone plan		\$55
Entertainment		\$35
Clothing		\$70
Miscellaneous		\$40

In December Andrea receives her \$40 allowance and a pay cheque of \$310.45 for her month of work. She spends \$53.89 on entertainment, \$60.00 on clothes and \$75.00 on miscellaneous items. She also pays her phone plan bill of \$55.

a. What is the balance of Andrea's actual budget at the end of the month of December?

Item	Income (+)	Expense (-)	Balance
Income from work and allowance of \$40			
Phone plan			
Entertainment			
Clothing			
Miscellaneous			

b) Does Andrea have any fixed income or fixed expenses?

c) Did Andrea stick to her budget? Why or why not?

Budgeting for an Event

Carl and his two friends choose a campsite that charges \$41.75 per night for up to four people. They estimate food will cost \$10 per person for each night of camping. They would like to spend one day kayaking. It is \$45.00 per person to rent a kayak for a day. If they camp for two nights and each person has \$100 to spend, will they have a balanced budget?

PRACTICE

Barry is in grade 10 and he lives with his parents; he doesn't pay rent, utilities, or food expenses. He works 15 hours per week at a pizza parlour, and his net income after taxes is \$600 a month. His older brother owns a car and lets him borrow it to drive to work when it is available for \$50 each month; otherwise Barry takes the bus. He really wants to buy a car, so any money that isn't spent at the end of the month goes towards savings for a used car. Analyze Barry's spending to determine why he is not on track to be able to purchase a car, and suggest what changes he could make to purchasing a car possible.

Fixed Expenses	Budget Goals	Actual Spending
Savings for Car	\$100	\$0
Cell Phone	\$75	\$100
Car Payment to Brother	\$50	\$100

Variable Expenses	Budget Goals	Actual Spending
Public Transportation	\$50	\$60
Entertainment	\$50	\$65
Personal Shopping	\$50	\$175
Miscellaneous	\$25	\$100
Total (Variable + Fixed)	\$400	\$600