

**Lesson Description**

In this lesson students learn the importance of keeping financial records. Students categorize expenses; total each expense category; and compare the total expenses to the total income.

**Texas Essential Knowledge and Skills (Target standards)**

- **PFL Math 5.10D:** develop a system for keeping and using financial records

**Texas Essential Knowledge and Skills (Prerequisite standards)**

- **Math 5.1:** Mathematical process standards
- **Math 5.2B** compare and order two decimals to thousandths and represent comparisons using the symbols  $>$ ,  $<$ , or  $=$
- **Math 5.3E** solve for products of decimals to the hundredths including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers
- **Math 5.4B** represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity

**National Standards (Supporting standards)**

- **CCSS Math 5.OA:** Write and interpret numerical expressions.
- **CCSS Math 5.NBT:** Understand the place value system. Perform operations with multi-digit whole numbers and with decimals to the hundredths.

CEE - Council for Economic Education

CCSS - Common Core State Standards

**Time Required**

One 45-minute class period

**Materials Required**

- A copy of **Activity 5.3-1** for each student
- 1-2 copies of **Activity 5.3-2** for each student
- A copy of **Activity 5.3-3** for each pair of students
- A copy of **Activity 5.3-4a** for each student
- A copy of **Activity 5.3-4b** for each student
- A pair of scissors for each student

**PFL Terms**

- Income
- Expenses
- Budget
- Financial record

**Procedure****Engage**

1. Ask: What is income? (**Money received for doing a job or profit earned from a business.**) What do your people do with their income? (**They pay rent or house payment; they pay for electricity, water, food and other necessities. Some people buy goods or services they want like going to the movies. Some people save their money for emergencies or for college. Some people donate their money to charities. All of these costs are called expenses.**)
2. Distribute a copy of **Activity 5.3-1** to each student. Tell students that Sammy earns money for walking his neighbor's children home from the bus stop each day. The circle graph below shows how he uses his weekly earnings.
3. Have students answer the questions on the activity sheet individually. When students are finished, discuss the answers with them.

**Explain**

4. Write the words income and expenses on the board. Have students tell a neighbor what these words mean. Then write budget on the board. Tell students that a budget is a plan that shows how income will be used for expenses. When people plan how to use their income, they make better decisions that lead to financial success. Tell students that before people make a budget, they have to track their earnings and spending. *What happens when you run out of money? (You cannot buy anything.) How can you avoid running out of money? (You keep track of the money you receive and the money you spend. You should make decisions on how to save and spend your money. You cannot buy everything you want.)*
5. Tell students that today we are going to develop a system for tracking the money you spend and the money you receive.
6. Separate the students into pairs. Distribute to each student one copy of **Activity 5.3-2**.

**Explore**

7. Read the directions on **Activity 5.3-2**. *In column one, write how a 5th grader might earn money. In column two, write how a 5th grader might use their earnings. Next to each item, write a reasonable amount for each income or expense.* Prepare to have a second page if they use all the rectangles on one sheet.
8. Distribute a pair of scissors to each student. Instruct students to cut apart **only** the expense cards on **Activity 5.3-2**.
9. Have the students look at their expense cards. Ask: *What kind of expenses have you listed? What categories might describe these expenses? (Categories might include food, clothing, entertainment, school, donations, or savings.)* List the categories on the board as the students identify them.
10. Distribute a copy of **Activity 5.3-3** to each pair of students. Explain to students that this table will give them a way to track income and expenses.
11. Instruct students to review the categories listed on the board and to decide which categories they can use to sort their expense cards. Then have the student write the

categories as headings on the first row below expenses. Suggest to students that they include a heading for “other” to make sure all items have a place on the table.

12. Have students sort the expense cards into the categories they identified. Record each item and amount in the table under the appropriate heading. Then record the income in the income column with each amount.
13. After all income and expenses have been recorded, ask students to calculate the amount of money remaining by completing the questions at the bottom of the activity sheet.
14. Ask: *What can you do if the expenses are greater than the income? (You cannot pay for all the expenses. You can either work for more income or decide which goods and services you will not purchase.) Why is it a good idea for consumers to keep a record of their spending? (Keeping a record of spending helps consumers stay within your budget. Documenting how you spend your money allows you to make better decisions on how you will spend and save your money.)*

#### Elaborate

15. Tell students that Maria and Roberto are planning for their family vacation. Each wants to have money to spend on his/her trip. Roberto challenged Maria that he will have more money than she will at the end of the month. How will keeping a financial record help Maria and Roberto? *(A financial record will help them keep track of the money they earn and how they spend that money.)*
16. Distribute a copy of **Activity 5.3-4a** and **Activity 5.3-4b** to each student. Tell students that each calendar lists the income and expenses for Roberto and Maria.
17. Explain that one student of the pair will record Roberto’s income and expenses on **Activity 5.3-4b** and the other student will record Maria’s income and expenses on the other copy of **Activity 5.3-4b**.

#### Evaluate/End

18. After students have completed **Activity 5.3-4b**, ask:
  - What is a balance? *(The amount of money you have left after you subtract the expenses from the income.)*
  - How much money did Roberto have at the end of the month? *(\$24.70)*
  - What was Maria’s balance? *(\$20.31)*
  - Who won the challenge? *(Roberto)*
  - How much more did Maria have than Roberto? *(\$4.39)*
19. As a ticket out of class, ask student to write in words how someone can track their money over a period of time.

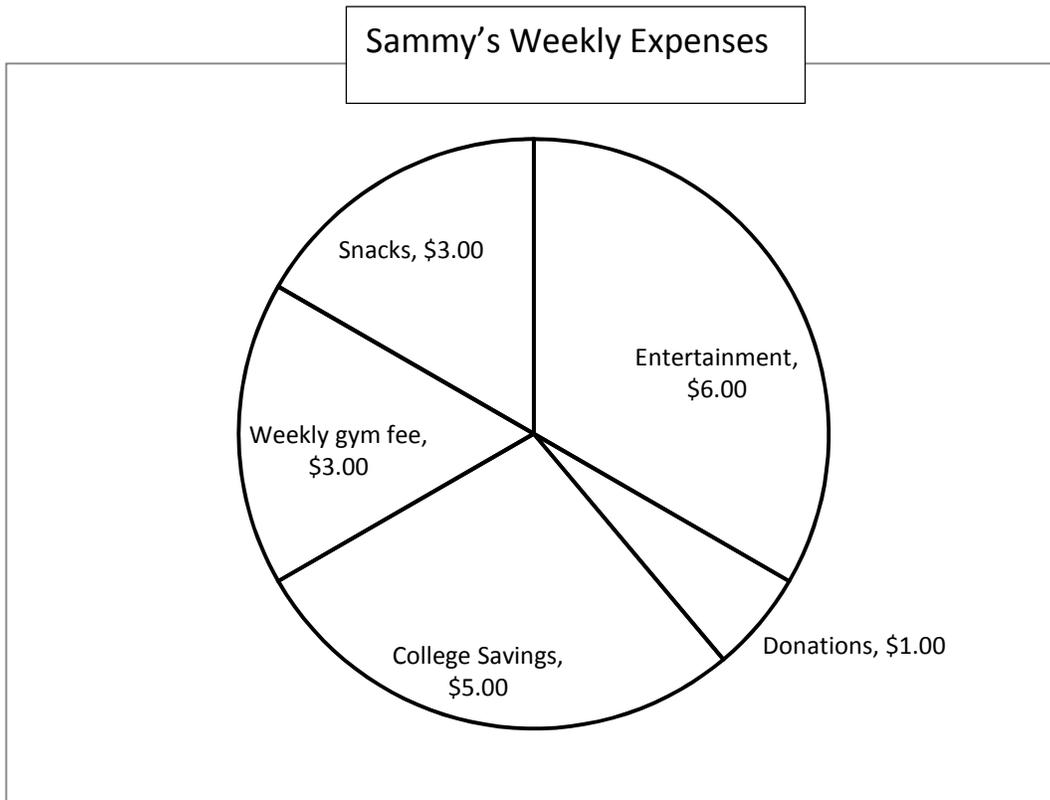
#### Extension

- Students create a spreadsheet to use to keep financial records of income and expenses.

**Activity 5.3-1**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Directions:** Sammy earns money for walking his neighbor's children home from the bus stop each day. The circle graph below shows how he uses his weekly earnings. Answer the questions about Sammy's weekly expenses below.



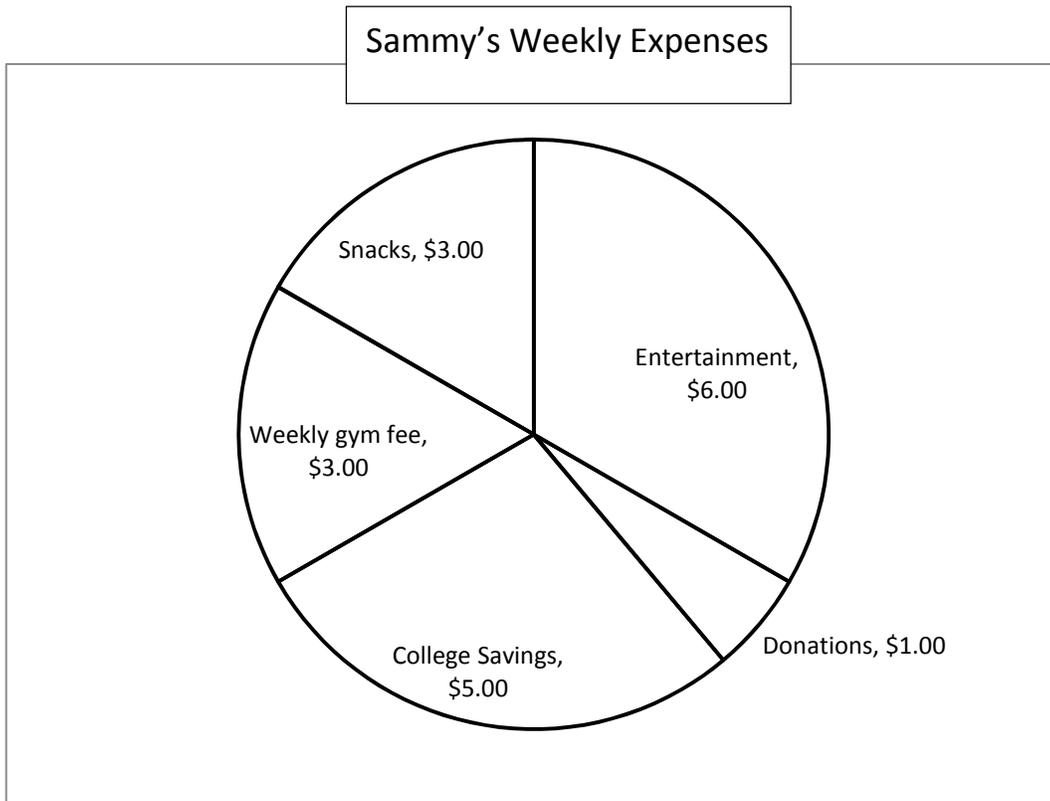
1. How much does Sammy earn each week? \_\_\_\_\_
2. For what does Sammy spend the most money? \_\_\_\_\_
3. For what does Sammy spend the least money? \_\_\_\_\_
4. Sammy would like to save for his mother's birthday which is in 10 weeks. How can he adjust his spending to save for his mother's gift? \_\_\_\_\_

**Key 5.3-1**

Name \_\_\_\_\_

Class Period \_\_\_\_\_

Directions: Sammy earns money for walking his neighbor's children home from the bus stop each day. The circle graph below shows how he uses his weekly earnings. Answer the questions about Sammy's weekly expenses below.



1. How much does Sammy earn each week? \$18.00
2. For what does Sammy spend the most money? Entertainment
3. For what does Sammy spend the least money? Donations
4. Sammy would like to save for his mother's birthday which is in 10 weeks. How can he adjust his spending to save for his mother's gift? Sample response: Sammy could spend less on snacks and entertainment.

**Activity 5.3-2**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Directions:** In column one, write how a 5<sup>th</sup> grader might earn money. In column two, write how a 5<sup>th</sup> grader might use their earnings. Next to each item, write a reasonable amount for each income or expense.

<b>Income</b> (How can a 5 <sup>th</sup> grader earn money?)	<b>Expenses</b> (How might a 5 <sup>th</sup> grader use their earnings?)	
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____
\$ _____	\$ _____	\$ _____

**Activity 5.3-3**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Directions:** Label the row below expenses with the categories that describe your expenses. Put the amounts identified on your cards under the appropriate category. Then calculate the columns and answer the questions below.

Income	Expenses			

\_\_\_\_\_

What is the total amount of income? \_\_\_\_\_

What is the total amount of expenses?

$$\frac{\text{Column 2}}{\text{Column 2}} + \frac{\text{Column 3}}{\text{Column 3}} + \frac{\text{Column 4}}{\text{Column 4}} + \frac{\text{Column 5}}{\text{Column 5}} = \frac{\text{Total Expenses}}{\text{Total Expenses}}$$

Which total is greater, income or expenses? \_\_\_\_\_

What can you do if the expenses are greater than the income? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

<b>Sample Key 5.3-3</b>
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**Directions:** Label the row below expenses with the categories that describe your expenses. Put the amounts identified on your cards under the appropriate category. Then calculate the columns and answer the questions below.

Income	Expenses			
	Entertainment	Snacks	Supplies	Other
Rake leaves \$5	rent a movie \$1	ice cream \$1	notebook paper \$2	save \$2
Wash dishes \$1	go to the movies \$7	soda \$1	pack of pencils \$2	donate to Red Cross \$2
Weed garden \$2	go to the pool \$3	hot dog \$4	art paint \$5	shoes \$20
Sweep and mop \$3			art paper \$3	
Wash car \$4				
Dust furniture \$1				
 \$16	 \$11	 \$6	 \$12	 \$24

What is the total amount of income? \$16

What is the total amount of expenses? \$53

$$\begin{array}{ccccccccc}
 \underline{11} & + & \underline{6} & + & \underline{12} & + & \underline{24} & = & \underline{53} \\
 \text{Column 2} & & \text{Column 3} & & \text{Column 4} & & \text{Column 5} & & \text{Total} \\
 & & & & & & & & \text{Expenses}
 \end{array}$$

Which total is greater, income or expenses? Expenses

What can you do if the expenses are greater than the income? You cannot pay for all the expenses. You can either work for more income or decide which goods and services you will not purchase

**Activity 5.3-4a**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Maria and Roberto are planning for their family vacation next month. Each wants to have money to spend on their trip. Roberto challenged Maria that he will have more money than she will at the end of the month. Below is a calendar that lists the income and expenses for both Roberto and Maria. Roberto began the month with \$6.24 and Maria began the month with \$8.75.**

## Roberto's Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Wash car, earn \$10.00	2	3 Buy spiral notebook \$1.89	4 Buy lunch at school \$3.75	5	6 Donate to food drive \$1.00	7 Mow yard earn \$15.00
8 Buy movie ticket \$5.25	9 Buy candy bar \$0.89	10	11	12 Buy snack \$1.25	13 Buy soda \$1.59	14 Rake leaves, earn \$7.00
15	16 Wash dishes, earn \$2.00	17 Buy poster board \$2.25	18	19 Wash dishes, earn \$2.00	20	21 Mow yard, earn \$15.00
22 Buy CD \$15.99	23	24 Buy school lunch \$2.75	25 Buy school lunch \$2.75	26 Buy pencil colors \$1.89	27 Wash dishes, earn \$2.00	28 Buy movie ticket \$6.50
29 Mow yard, earn \$15.00	30 Buy snack \$1.79	31				

## Maria's Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 Help clean, earn \$10.00	2	3 Buy school lunch \$2.75	4	5 Buy snack \$1.79	6 Donate to food drive \$1.00	7 Buy spiral \$2.00
8 Babysit, earn \$15.00	9 Buy candy \$0.89	10	11 Buy pack of folders \$1.79	12 Buy school lunch \$2.75	13	14 Babysit, earn \$15.00
15 Buy lunch at mall \$10.79	16	17 Buy new jeans \$12.99	18	19 Buy new pencils \$1.59	20 Buy school lunch \$3.75	21 Babysit, earn \$20.00
22 Go bowling \$10.00	23 Wash dishes, earn \$2.00	24	25	26 Wash dishes, earn \$2.00	27	28 Buy movie ticket \$6.50
29 Wash car, earn \$7.50	30	31 Buy snack \$1.35				

**Activity 5.3-4b**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Directions:** Complete the financial record below to determine how much money remains after the end of the month.

**Financial record for** \_\_\_\_\_

Income	Expenses			
	Entertainment	School Supplies	Food/Snacks	Other

\_\_\_\_\_

Calculate the totals for each column.

What is the total amount of income? \_\_\_\_\_

What is the total amount of expenses? \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ = \_\_\_\_\_

Total Income minus total expenses equals the balance of money left over.

\_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_

Income                      Expenses                      Balance

What is the balance of money at the end of the month for Roberto? \_\_\_\_\_

What is the balance of money at the end of the month for Maria? \_\_\_\_\_

Who won the challenge? \_\_\_\_\_

How much more money did the winner have? \_\_\_\_\_

**Key 5.3-4b**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

Directions: Complete the financial record below to determine how much money remains after the end of the month.

Financial record for Roberto

Income	Expenses			
	Entertainment	School Supplies	Food/Snacks	Other
\$6.24	\$5.25	\$1.89	\$3.75	\$1.00
\$10.00	\$15.99	\$2.25	\$0.89	
\$15.00	\$6.50	1.89	\$1.25	
\$7.00			\$1.59	
\$2.00			\$2.75	
\$2.00			\$2.75	
\$15.00			\$1.79	
\$2.00				
\$15.00				
<u>\$74.24</u>	<u>\$27.74</u>	<u>\$6.03</u>	<u>\$14.77</u>	<u>\$1.00</u>

Calculate the totals for each column.

What is the total amount of income? \$74.24

What is the total amount of expenses? \$27.74 + \$6.03 + \$14.77 + \$1.00 = \$48.54

Total Income minus total expenses equals the balance of money left over.

$$\begin{array}{r}
 \underline{\$74.24} \quad - \quad \underline{\$49.54} \quad = \quad \underline{\$24.70} \\
 \text{Income} \qquad \qquad \qquad \text{Expenses} \qquad \qquad \qquad \text{Balance}
 \end{array}$$

What is the balance of money at the end of the month for Roberto? \$24.70

What is the balance of money at the end of the month for Maria? \$20.31

Who won the challenge? Roberto won the challenge.

How much more money did the winner have? \$24.70 - 20.31 = \$4.39

**Key 5.3-4b**

Name \_\_\_\_\_ Class Period \_\_\_\_\_

**Directions:** Complete the financial record below to determine how much money remains after the end of the month.

**Financial record for**     Maria    

Income	Expenses			
	Entertainment	School Supplies	Food/Snacks	Other
\$8.75	\$10.00	\$2.00	\$2.75	\$1.00
\$10.00	\$6.50	\$1.79	\$1.79	\$12.99
\$15.00		\$1.59	\$0.89	
\$15.00			\$2.75	
\$20.00			\$10.79	
\$2.00			\$3.75	
\$2.00			\$1.35	
\$7.50				

    \$80.25            \$16.50            \$5.38            \$24.07            \$13.99    

Calculate the totals for each column.

What is the total amount of income?     \$80.25    

What is the total amount of expenses?     \$16.50     +     \$5.38     +     \$24.07     +     \$13.99     =     \$59.94    

Total Income minus total expenses equals the balance of money left over.

$$\begin{array}{r}
 \$80.25 \\
 \hline
 \text{Income}
 \end{array}
 -
 \begin{array}{r}
 \$59.94 \\
 \hline
 \text{Expenses}
 \end{array}
 =
 \begin{array}{r}
 \$20.31 \\
 \hline
 \text{Balance}
 \end{array}$$

What is the balance of money at the end of the month for Roberto?     \$24.70    

What is the balance of money at the end of the month for Maria?     \$20.31    

Who won the challenge?     Roberto won the challenge.    

How much more money did the winner have?     \$24.70 - 20.31 = \$4.39