





**The Messy Meter** 

Recommended Grades: **7-12** 

Estimated Time: **25 Minutes** 

Subject: Financial Literacy

# WHAT YOU'LL NEED

#### **PANTRY STAPLES:**

- Pre-made printout
- Pen or pencil
- An internet-connected smartphone, tablet, or computer

# **Charge It?**

Credit cards are convenient and can be great tools if used wisely. But it's important to understand how they work and their potential pitfalls. This activity introduces the cost of using credit by showing kids the real amounts that the same item costs when it's paid for in different ways.



### **STEPS**

- On the "What Does it Really Cost?" chart, begin with the first section, "Buying Wireless Headphones."
- For each line, multiply the dollar amount by the number of months to determine how much each person really paid for their wireless headphones, and enter that in the first column.
- 3. Then subtract the original amount of \$200 from the total amount paid to determine how much each person paid in interest. Enter that amount in the "Dollar Cost of Using Credit" column.
- For the next activity, "Buying Sports Equipment," calculate the total amount paid when using each option.
- In Option 3 and Option 4, subtract the original amount of \$200 from the total amount paid to determine how much each person paid in interest.

Bonus Fun: Older youth can open credit cards, usually with an adult co-signer to ensure responsible use. If you're comfortable, encourage teens to search online for "student credit cards" to see some of their options and features, such as cash back. Ask questions, including: What is the range of interest rates for student credit cards? Do you think it would be a good idea to open a student credit card? What are the risks and what are the advantages?

**Go Further:** Credit is a financial tool and there are many advantages and pitfalls when using credit. Learning about the cost of credit is only the first step. Learn how to make smart financial decisions when using a credit card by completing the activity in My Financial Future, called Apply Consumer Skills to Purchase Decisions.



### **Questions to Engage Youth:**

Some purchases are so big that people usually have to use credit for them. Can you give some examples?

Do you think you should have a credit card at your current age? Why or why not?

What is a good age to get a first credit card?

What would you use a credit card for?

What might happen if you can't make a credit card payment on time?

## **Explanation:**

Credit makes buying things—or paying for experiences, like tickets to a festival—quick and easy. But borrowing money costs money. If you don't pay off your purchase in full by the first due date, it's going to cost you more than the original price. Your credit card experience can vary greatly depending on factors like the interest rate, and whether you keep a running balance or pay it off in full.

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# What Does It Really Cost?

### **Buying Wireless Headphones:**

The wireless headphones everyone wants can run a steep \$200 (or more). Aaliyah, Jacob, Emma, Sam and Marcus each bought headphones that sell for \$200 at the store. Aaliyah saved up to pay in cash, but Jacob, Emma, Sam and Marcus used credit. Calculate how much they each paid in interest for their headphones.

	Total Amount Paid	Dollar Cost of Using Credit (Total Amount Paid: \$200)
Aaliyah saves \$10 a month for 20 months		
Jacob paid \$24 a month for 12 months		
Emma paid \$6 a week for 1 year		
Sam paid \$16 a month for 24 months		
Marcus paid all \$200 when it was due at the end of the month		

**Explanation:** Since Aaliyah is saving her money to pay in cash, she has the opportunity to earn interest instead of paying it. In exchange for keeping her money in a bank, the bank will actually pay her interest on the amount she has saved. That means, after Aaliyah buys the headphones for \$200, she'll have money left over for other things. Marcus also has the opportunity to earn money on his purchase. Since he paid the full amount he owed at the end of the month, he won't be charged any interest or fees. Depending on the perks offered by his credit card, he may earn points or money back on his purchase.

Because Jacob, Emma and Sam did not pay off the full amount right away, they all paid interest on the amount they still owed each month. That means each of them ended up paying substantially more than the \$200 cost of the headphones



# What Does It Really Cost?

### **Buying Sports Equipment:**

You want to buy equipment that costs \$150. Which of the following methods would you choose?

#### Option 1: Cash Now

The cost is \$150. You hav	ve \$150 saved
Total cost of equipment:	

#### Option 2: Save in Bank to Pay Cash Later

You decide to save up for your \$150 equipment in a savings account. You will receive 1% interest on your savings of \$15 per month. How many months do you have to save to buy the equipment?
\_\_\_\_\_ months.

Month	Balance Forward	Deposit	Interest Earned	Balance at the End of the Month
1	\$0	\$15	.01	\$15.01
2	\$15.01	\$15	.03	\$30.04
3	\$30.04	\$15	.04	\$45.07
4	\$45.07	\$15	.05	\$60.12
5	\$60.12	\$15	.06	\$75.18
6	\$75.18	\$15	.08	\$90.26
7	\$90.26	\$15	.09	\$105.35
8	\$105.35	\$15	.10	\$120.45
9	\$120.45	\$15	.11	\$135.56
10	\$135.56	\$15	.13	\$150.69

**Note:** Interest rate is 1% Annual Percentage Rate (APR). Divide .01 by 12 (months in a year) to get a monthly rate of .00083333. That rate is used to multiply the end of month balance to get the interest earned amount.

#### Option 3: Borrow Money From Bank to Pay Cash Now

Your new sports equipment costs \$150. The bank charges you 8% (APR) interest on your loan. You can only afford to pay \$15 each month.

To calculate the cost of borrowing \$150 at 8% interest (APR), paying \$15 a month, use an online calculator. To find one that works for this exercise, search "cost of credit calculator."

What is the real	cost of your	sports	equipment	when y	ou includ	e the
interest charges	2.\$					

#### Option 4: Use A Credit Card to Purchase Now

Your new sports equipment costs \$150. The credit card company charges you 27% (APR) interest on your purchase.

To calculate the cost of borrowing \$150 at 27% interest (APR), paying \$15 a month, use an online calculator.