



# Understanding Income and Expenses

EPISODE #123

ACTIVITIES & LESSONS

## LESSON LEVEL

Grades 9-12

## KEY TOPICS

- Entrepreneurship
- Income and expenses
- Cash flow

## LEARNING OBJECTIVES

1. Understand what your income and expenses are.
2. Know how to calculate your cash flow.
3. Recognize the importance of positive cash flow.
4. Learn financial terms.

## EPISODE SYNOPSIS

The Biz Kid\$ watch the ebb and flow of income and expenses. Join them and you'll learn proven methods for getting expenses under control while growing income with new ideas, smarter work habits, and innovation. Meet some entrepreneurs who have seen success with cash flow and more!

## NATIONAL STANDARDS CORRELATIONS

Aligned to *National Financial Literacy Standards* from the **JumpStart Coalition for Personal Financial Literacy**.

Financial Responsibility and Decision Making

*Standard 1:* Take responsibility for personal financial decisions.

*Standard 4:* Make financial decisions by systematically considering alternatives and consequences.

Planning and Money Management

*Standard 1:* Develop a plan for spending and saving.

*Standard 4:* Apply consumer skills to purchase decisions.

*Standard 6:* Develop a personal financial plan.

Aligned to *Voluntary National Content Standards in Economics* from the **Council for Economic Education**.

*Standard 2:* Decision Making

*Standard 14:* Entrepreneurship

Aligned to **Common Core State Standards Initiative's** standards for *Literacy in History/Social Studies, Science and Technical Subjects*.

*Standard 1:* Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

*Standard 4:* Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

*Standard 7:* Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.

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# LESSON PREP & SCREENING

## Getting Started

Familiarize yourself with the episode ahead of time. It will serve as a springboard for student learning, discussions, vocabulary exploration, and hands-on activities. Determine what equipment is required to show the episode in your classroom and request it if needed. Choose an activity (each one takes between 45-60 minutes), and gather supplies. Students will need a pen or pencil and copies of the activity worksheets. Have fun!

## Screening

Introduce the series and the episode. Explain that Biz Kid\$ is a public television series that teaches kids about money and business. Mention that the bizkids.com website has lots of video clips, games, a blog, and other resources to help kids start businesses and learn about money. Prior to playing the episode, lead your students in a discussion with the preview questions on this page.

## About the Episode

The Biz Kid\$ watch the ebb and flow of income and expenses. Join them and you'll learn proven methods for getting expenses under control while growing income with new ideas, smarter work habits, and innovation. Meet some entrepreneurs who have seen success with cash flow and more!

## Episode Preview Questions

Before you show this Biz Kid\$ episode, lead your students in a brief discussion of the following questions:

- If you run a business, how will you know if you are making a profit?
- Why would it be important for a business owner to track income and expenses?
- How does your family track income and expenses?

## Next Steps

Show this episode. After the episode, read the Summary and Conclusion to the class.

## Summary and Conclusion

Track income and expenses to verify that a business is not spending more money than it is making. There are different tools to use in tracking income and expenses, including computer programs and paper ledgers. Stick to a budget to help keep costs down, and you will have positive cash flow like the Biz Kid\$!

## Family Connection

Distribute a copy of the Family Activity Sheet to each student to share what they've learned with their families.



# FAMILY ACTIVITY SHEET

## Episode Synopsis

The Biz Kid\$ watch the ebb and flow of income and expenses. Join them and you'll learn proven methods for getting expenses under control while growing income with new ideas, smarter work habits, and innovation. Meet some entrepreneurs who have seen success with cash flow and more!

## Activity Suggestions

Encourage your child to keep track of their income and expenses. After one week, review your child's spending together. Discuss ways to reduce expenses and increase income. Use examples from your own family income and expenses to illustrate strategies you use to maintain positive cash flow.

Visit a local library or bookstore to find a copy of the book "The Accounting Game: Basic Accounting Fresh From the Lemonade Stand" by Darrell Mullis and Judith Orloff. This book teaches kids (and adults!) how to accurately keep track of income, expenses, and cash flow just like professional businesses do. Read the book together, and discuss the scenarios with your child.



Activity #1:

# BIZ TERM\$

## WORKSHEET FOR STUDENTS

### Biz Term\$

- Balance
- Cash flow
- Credit
- Debit
- Expenses
- Income
- Minimum wage
- Profit
- Revenue
- Taxes

### Directions

With students, read aloud the Biz Term\$ and each question. Call on volunteers for answers, and have them explain why they chose the term they believe to be correct.

### Biz Term\$ Episode Review

1. The government will collect \_\_\_\_\_ on your income.
2. If you spend more money than you earn, you have a \_\_\_\_\_ problem.
3. A business shows a \_\_\_\_\_ when income is greater than expenses.
4. Beginning jobs for workers may only pay \_\_\_\_\_.
5. Money a business earns can be called \_\_\_\_\_ or \_\_\_\_\_.
6. Your bank statement will show your account \_\_\_\_\_ for a period of time.
7. Subtracting an amount of money is also known as a \_\_\_\_\_.



# CURRICULUM CONNECTIONS

## Language Arts

- Have students construct sentences, write a paragraph, or create a story, skit, or dialog using Biz Term\$.
- Have students create a class Dictionary of Financial Terms using Biz Term\$.
- Have students start their own Journal of Personal Financial Education and continue to add to it.

## History/Social Studies

- Coupons are one way to save money by reducing expenses. Have students research the history of coupons in the United States. Name one U.S. company that issued coupons in the 1800's? Describe different distribution methods for coupons through the 1900's and 2000's from paper tickets to electronic coupons on mobile devices.

## Mathematics

- Mike started a swimming pool cleaning business. It cost him \$250 for tools and chemicals. He found three customers and charged them \$50 each for his service. Is he making a profit? What can he do to increase his income?

## Economics

- Like businesses, governments must budget and track income and expenses. Using the internet or your local library, find information about the budget for your city. What is the total amount budgeted for this year? How much income is expected? How much is planned for expenses?

## Optional Vocabulary Extensions

### Make Art!

Ask students to create personal illustrated glossaries using sketches or cartoons to visually represent the meaning of each Biz Term.

### Make It Personal!

Provide students with dictionaries and ask students to re-write formal definitions for each Biz Term in their own words to demonstrate comprehension.



Activity #2:

# THE CANDY MACHINE

## WORKSHEET FOR STUDENTS

**Lesson Level:**

Grades 9-12

**Learning Objective:**

Understand what your income and expenses are.

**Directions**

It is important when you own a business to keep track of how much you spend and how much you earn. Take a look at this simple business and get an in-depth look at their income and expenses.

**INCOME**

At the Candy Machine, sales are great! This vending machine is located near the high school campus, and sells candy bars for \$1 each. On school days, the machine has \$50 in sales per day. On weekends, the machine has \$20 in sales each day. On a holiday, the machine has \$10 in sales for that day.

Look at your calendar. How much income will the Candy Machine have this week (starting with Sunday and ending with Saturday)? \_\_\_\_\_

But wait, there's more! Being a clever Biz Kid, you sell advertising space on your machine. Your exclusive advertising space sells for \$250 per month, with a target audience of high school age students. How much do you earn per week from selling this advertising space? \_\_\_\_\_

**EXPENSES**

Product

At the Candy Machine, expenses are reasonable, right? You purchase each package of 6 chocolate bars for \$4.27 each. How much does one chocolate bar cost? \_\_\_\_\_

If you live in a state that requires sales tax on candy bars, do not forget to account for that. What is your local tax rate on candy bars? \_\_\_\_\_ How much does each candy bar cost with sales tax? \_\_\_\_\_

But wait, there's more! You have some additional expenses that need to be accounted for.

Rent

You rent the vending machine and the space that your vending machine sits at. You pay \$150 per month total. How much is that per week? \_\_\_\_\_

(continued on the next page)



**Continued...**

Utilities

You pay for the electricity that your vending machine uses. The bill is \$35 per month. How much is that per week? \_\_\_\_\_

Transportation

You have to have a way to get the candy from the store to the vending machine. You rent a cargo van at a rate of \$19 per day to accomplish this task. You do this once a week. Even though it only takes 2 hours, there is a 1 day minimum charge for the van rental, so you've still spent \$19 this week for transportation.

Insurance

What about your insurance? You have a \$10 per month insurance policy that covers any theft or other vandalism to your machine. How much is that per week? \_\_\_\_\_

Maintenance and Repairs

And don't forget maintenance and repairs. Once every 3 months, a vending machine company comes out and makes sure your machine is in good working order. If the machine breaks, you can call them and it is covered. You pay \$50 per year for this service. How much is that per week? \_\_\_\_\_

Refunds

Wait, what? Yes, sometimes even the best vending machines have a problem. You refund about \$2 per week to customers whose candy did not vend properly.

Wages

You work hard to keep this business in business. You need to pay yourself also. How much do you earn per hour? \_\_\_\_\_

In one week, you spend 2 hours buying candy and re-stocking the machine. You spend 1 hour on advertising. You spend 3 hours on other paperwork for insurance, paying your bills, and so forth. And you spend about 2 hours per week responding to questions, comments, and refund requests from your customers.

How much do you earn in one week? \_\_\_\_\_

Other

Wow, that's a lot to keep track of, but you can do it! Can you think of anything else that might be an expense for your business that is not listed above? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Have students discuss these ideas and share their answers with the class.





Activity #3:

# CASH FLOW CALCULATION

## WORKSHEET FOR STUDENTS

**Lesson Level:**

Grades 9-12

**Learning Objective:**

Know how to calculate your cash flow.

**Directions**

Using the data on the tables below, calculate the cash flow for the Candy Machine business.

Weekly Income		Weekly Expenses	
Product sales	\$290.00	Product	\$204.96
Exclusive advertising space sales	\$57.69	Rent	\$34.62
		Utilities	\$8.08
		Transportation	\$19.00
		Insurance	\$2.31
		Maintenance & Repairs	\$.96
		Refunds	\$2.00
		Wages (at \$10 per hour)	\$80.00
		Other	\$5.00
<b>TOTAL</b>	<b>\$347.69</b>	<b>TOTAL</b>	<b>\$356.93</b>

- Does this business have a positive or a negative cash flow? \_\_\_\_\_
- How much money are they earning or losing each week? \_\_\_\_\_
- Can you think of some ways that they can reduce their expenses (see Activity #2 for more information on these expenses)? What would you recommend? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
- Can you think of some ways that they can increase their income (see Activity #2 for more information on their income)? What would you recommend? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Have students discuss these ideas and share their answers with the class.





# BIZ TERMS DEFINITIONS

- *Balance:* The amount of money that you actually have available in your account.
- *Cash flow:* Movement of money from your account, which is positive if income is greater than expenses, and negative if income is less than expenses.
- *Credit:* A positive transaction in your account, one that adds money.
- *Debit:* A negative transaction in your account, one that removes money.
- *Expenses:* Amounts of money spent to buy goods and services for yourself or your business.
- *Income:* Money earned through employment and investments.
- *Minimum wage:* The lowest amount of pay per hour that an employee can legally earn.
- *Profit:* Money that is left after expenses have been paid for from a business or an investment.
- *Revenue:* Money or income that is earned, usually in a business.
- *Taxes:* Money collected by the government to help pay for society's expenses.



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