

Rich Kid Smart Kid Games
Game Three: Ima's Dream
Topic: Pay Yourself First
Grade Level: 9-12

Interactive Internet Game Activity

Bill and Penny are just like the young people we all know. Some have the knowledge to make good decisions and some do not have that background knowledge. This activity helps provide that knowledge so that all young people can make financial decisions that will prepare them for their future. Bill likes to buy doodads, however, doodads do not help him prepare for his future. They are for the present. Penny on the other hand likes to pay herself first. Because of this she will be preparing herself for the future and positioning herself to be able to afford doodads.

Learning Objectives

- Understand the concept of “Pay Yourself First”
- Perform mathematical calculations
- Prepare a chart graphing calculated quantities

Assessments

Students will: (1) Analyze a scenario to understand the concept of “Pay Yourself First,” (2) Solve mathematical problems to determine accumulated wealth, (3) Prepare a graph including identifying units for the axes.

Classroom Activities

1. Pay Yourself First – The Bill & Penny Story - Use the Overview as the introduction to the concept of “Pay Yourself First.” Have a student read Bill’s story and have another student read Penny’s story. Have students name something that they would like to save for.
2. Penny’s PYF Investing – Penny has been busy. She has worked hard to discover ways to make her dream come true. Help students work through the series of opportunities that allowed Penny to achieve her dream. Complete the cross-number puzzle. Students can check these answers with you before they begin the next activity.
3. Growth Chart – Use the calculations from Penny’s PYF Investing to create a chart or graph the will illustrate the growth of Penny’s investments. Have students choose what the two axes should represent. (One suggestion is dollars and time.)

Class Discussion Questions

1. What are the investments that Penny made to accumulate her wealth?
2. What do you think Penny will do with the \$33,756 in her PYF Investing account?
3. Do you believe that Bill will begin to follow Penny’s plan for “Paying Yourself First?”
4. How will you plan to “Pay Yourself First?”

Overview

Pay Yourself First – The Bill & Penny Story

The phrase that pays is Pay Yourself First. It means just what it sounds like it means. When you earn money the first thing you should do is save a part of that money for yourself. It sounds so simple, but most people try to do it backwards. They spend first and save what is left. The problem is there is usually nothing left after spending.

Bill. Like most people, Bill got his first job as a teenager. Shortly after getting his first job he got his first paycheck. And with his first paycheck Bill got the power to buy stuff. Everyone likes to buy stuff. We call them “doodads”. Bill liked buying doodads so much that he even started making out a list of the doodads he would most like to buy:

Bill's List	
CD Player	Lots of CD's
Concert Tickets	Clothes

Every week when Bill would get his paycheck, he would go out and buy doodads on his list. And you would think that as he bought the doodads on his list that his list would get shorter. But sadly, no. As Bill bought his doodads he wanted even more doodads and his list grew bigger and bigger. But Bill was happy. Bill was having fun. Buying doodads is fun.

Penny. Penny is Bill's sister. Penny knows all about pay yourself first. Like many brothers and sisters, when Penny and Bill were children they were as different as night and day. As teenagers it seemed as though Penny always had money, but Bill never did. When Penny got a paycheck she would pay herself first by putting some of her money in her bank and then invest it. Bill had no bank. He had broken it a long time ago to buy some candy. Penny also had a list of things to buy:

Penny's List	
Stock Shares	Duplex
Gum Ball Machine	

Through the years Bill and Penny did not change. Bill made lots of money and spent lots of money. Penny did not make nearly as much a Bill, but she continued to pay herself first and invest.

Conclusion. And then one day it happened. Penny called her brother Bill to tell him her good news. “Bill”, she said, “I have decided to take off for a year or so and travel around the world”. Bill was shocked. He knew that even though he made a lot of money he could not begin to afford to take a year off of his work. “Penny”, he replied, “This isn't like you. You can't mean you are going to go out and spend all that money you have saved for all these years”? “Oh no”, Penny said, “I wouldn't think of spending my savings”.

So how did Penny do it?

Penny's PYF Investing

The following story problems tell you how Penny achieved her dream. Complete the problems and fill your answers in the cross-number puzzle. When you finish, creatively design a growth chart that tracks Penny's PYF Investment account.

1. When Penny was born, her Grandparents put \$1000 into a Certificate of Deposit for her. The account earned Penny 4% interest per year. At that rate of interest, it took 18 years for the account to double in value. How much did Penny have in the account at age 18?
2. Because she was honest and dependable, Penny was often offered babysitting jobs. She babysat 5 nights each month. She earned \$2.50 per hour per child. She would watch 2 children for 4 hours. As part of her Pay Yourself First plan, Penny put one-half of her earnings into her PYF Investing account. After a 3 years of babysitting, how much did Penny have in her PYF Investing account?
3. Penny began working a part-time job in a CD shop. She worked 12 hours each week at \$7.50 an hour. If she put one-half of her before tax earnings into her PYF Investing account, how much did Penny put into her account in 2 years?
4. While Penny was in high school she made money selling bracelets. It began when she made a few bracelets for her friends. Her bracelets became very popular and she started charging \$6 for each bracelet. She sold 276 bracelets in one year. To make the bracelets she bought a kit for \$36; each kit would make 69 bracelets. She decided to put all of her profits in her PYF Investing account. How much did Penny make the year she sold bracelets?
5. Penny was now 18 years old. She cashed the Certificate of Deposit and added it to her PYF Investing account. How much was now in her PYF Investing account?
6. Following the advice of her dad, Penny bought a duplex to rent out. She used \$5000 from her PYF Investment account for the down payment. Over the next 6 years she averaged \$112 a month in income on the property. Each month she put one-half back into her PYF Investment account. How much did Penny add back into the account over those 6 years?
7. About the same time Penny was excited when she found an advertisement in the classifieds: "Gum Ball machine \$1300". She purchased the machine and asked permission to set the machine in the lobby of the local skating rink. In exchange she would pay the skating rink \$50 per month for space rental. All Penny had to do was restock the machine and collect her money. The machine averaged 800 gum ball sales a month at \$.25 per gum ball. Each gum ball cost Penny 5 cents. Over the next 6 years, Penny put the profits back into her PYF Investment account. How much went back into the account? (hint: Monthly Sales – Monthly Gum Cost – Monthly Rental Expense x Number of Months)
8. Penny decided to buy stock in a company called ON2U. The stock cost \$26 per share, but was expected to rise greatly. Penny decided to use the remaining \$3692 in her PYF account to buy the stock. The stock gained just as expected and in 6 years rose to \$62 per share when Penny decided to sell her shares and put the entire amount back into her PYF Investment account. How much did Penny put into the account from the sale of her stock?
9. Penny was now 24 years old. Her PYF Investment account had grown from the rental income (6), the gum ball income (7), and the sale of ON2U stock (8). She decided to sell the duplex for a net gain of \$12,000 and the gum ball machine for \$1,000. She put that money back into her PYF Investment account. How much was now in her PYF Investing account?

Penny's PYF Investing

Cross Number Answer Sheet

					4		
		7					
		5					
2							
8			6				
							3
			9				
				1			

Growth Chart



Penny's PYF Investing

Cross Number Answer Key

					1		
					5		
		7			1		
		9	9	9	2		
1		2					
8	8	0	4				
0			0				4
0			3	3	7	5	6
			2				8
				2	0	0	0

Problem Solutions

1. 2000 1000×2
2. 1800 $2.50 \times 2 \times 4 \times 5 \times 12 \times 3 / 2$
3. 4680 $12 \times 7.50 \times 52 \times 2 / 2$
4. 1512 $(276 \times 6) - (276 / 69 \times 36)$
5. 9992 $2000 + 1800 + 4680 + 1512$
6. 4032 $112 \times 12 \times 6 / 2$
7. 7920 $((800 \times .25) - (800 \times .05) - 50) \times 12 \times 6$
8. 8804 $(3692 / 26) \times 62$
9. 33,756 $4032 + 7920 + 8804 + 12000 + 1000$

Growth Chart

Charts may vary in appearance.