Rich Kid Smart Kid Games
Game Three: Ima's Dream
Topic: Pay Yourself First
Grade Level: 3-5

Interactive Internet Game Activity
Ima has had a very different life than most of us. She has learned from her own experiences the importance of giving to charity. Ima's life story is shared with students through a narrative and then lively dialogue between her and Toki. Through class activities students will learn what it means to "pay yourself first" so that you have money for charity and for your future.

Learning Objectives
- Estimate to predict investment growth
- Compute math solutions
- Graph known amounts

Assessments
Students will: (1) estimate how an investment will grow when money is continually doubled, (2) compute math calculations by completing a table, (3) use math computations to understand investment growth by plotting computed values on a graph.

Classroom Activities
1. Ima's Dream – Read the background narrative describing Ima's life. Then continue with the dialogue between Ima and Toki. This script will introduce the concept of "pay yourself first" and charitable giving.
2. Double Dollar Math – You can do this activity as an individual or in small groups. First, describe the two pay options to students. Let them think for a moment about earning $1,000 on the last day of the 20-day job or receiving a penny the first day and having the accumulated amount double for 20 days. Have students write in their estimated total earnings for the 20-day job. Give students time to complete the Pay Day Math table.
3. Pay Yourself First – Growing Money Graph - Starting with Day 14 on your table, mark the value of the day's total in the appropriate column on the graph. When you are finished, connect your points for a visual representation of your money growth.

Class Discussion Questions
1. In the Double Dollar Math activity your money was doubled. Does your invested or saved money always double?
2. In the Pay Yourself First activities, money growth was compared to the growth of a tree. Describe the similarities and differences between money growth and tree growth. Can monsoons and droughts be used in your comparisons?
3. Big money amounts always sound great. In the case of the Double Dollar Math activity, the large amount turned out to be the small amount. How important is it to not make quick decisions and to really think through a business transaction? Are there times when you need to make quick decisions? Name several examples.

Overview

Pay Yourself First

Our game is called Ima's Dream. Sometimes we use the word dream to mean something good that we hope will happen in the future. In this case, Ima has a dream of giving lots of money to charity. What a great dream to have.

But it was just a few years ago that Ima had a very different dream. Ima was born in a distant land in a time of great trouble for her people. She does not remember very much about her mother and father. Ima was only five years old when she tragically lost them both to starvation and the war in her country. What she does remember is the orphanage. It was there that Ima and her little sister dreamed of a new home. It was there that Ima's first dream came true.

The Colonel and his wife had been traveling for days before arriving at the orphanage. Brought there by the stories of the war and the children, they had come in hopes of giving a home to a child in need. Ima's sister was that child. But as the Colonel, his wife, and Ima's sister were leaving the orphanage, the young girl cried out for her sister, Ima. The Colonel and his wife had not known about Ima, but soon the girls were together in their new home in a new land.

Ima is a believer. She knows how to dream big and she knows how important it is to be able to give to those in need. Yes, she has a dream, but what she doesn't have is a plan. Then one day she was talking to her good friend Toki and...well...let's listen in...

Toki	Ima, what would you do if you were rich?
Ima	My dream is to be able to give lots of money to charity.
Toki	That's a great dream Ima.
Ima	Yeah, but how am I going to do it if I'm not rich?
Toki	The strange thing is you may have a better chance of getting rich if you start giving to charity now.
Ima	I don't understand, Toki. How does that work?
Toki	Well, if we are to have money for important things, we first need to learn a simple habit.
Ima	What habit is that, Toki?
Toki	The habit is called pay yourself first.
Ima	How does pay yourself first work?
Toki	It works just like it sounds. Each time you receive money, the **first** thing you must do is set some of it aside, like in a piggy bank.
Ima	So, if I learn the habit of paying myself first for savings, that same habit will work for me for giving to charity.
Toki	And for investing.
Ima	And that's how I can become rich and make my dream come true!
Toki	I think you've got it Ima.
Ima	Thanks, Toki.

DOUBLE DOLLAR MATH

Which do you think you would prefer?

- To be paid $1,000 on the last day.
- To be paid a penny the first day, then doubled each day.

Before you do the math, what is your estimate of your day 20 total?

$ _____

Day	Pay	Total	Day	Pay	Total
1	.01	.01	11		
2	.02	.03	12		
3	.04	.07	13		
4			14		
5			15		
6			16		
7			17		
8			18		
9			19		
10			20		

Pay Yourself First – Growing Money Graph

The habit of **Pay Yourself First** will give you money to invest. Money invested can grow much the same as the pay from Pay Day Math. As you begin to **Pay Yourself First** and invest, it may not seem like much is happening. But like the little acorn grows into a mighty oak tree, so too will your money grow.

Money may not grow on trees, but it grows like a tree.

- Use the Total amounts from Double Dollar Math.
- Pencil a point on the graph to represent the amounts.
- Then connect the points to see how your money grows.

	Day 14	Day 15	Day 16	Day 17	Day 18	Day 19	Day 20
$10,000							
$9,000							
$8,000							
$7,000							
$6,000							
$5,000							
$4,000							
$3,000							
$2,000							
$1,000							
750							
500							
250							
0							
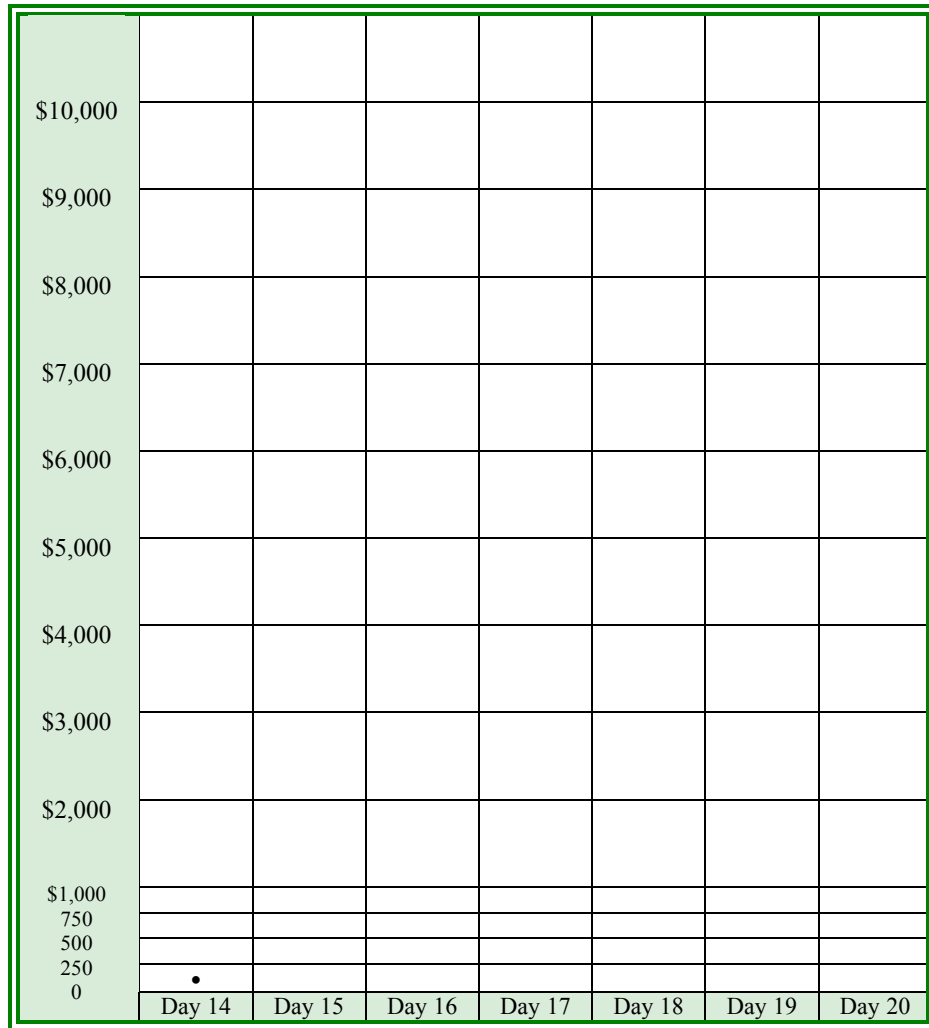
Double Dollar Math

Instructions:
This can be done individually or in small groups. Read the following problem to the class:
*I have some very important work for you to do. The work will take you 20 days to complete.
I want to pay you for your work, but I want you to decide how you wish to be paid. I have two
methods for you to choose from.*

1. *Choice one is to pay you $1,000 on the last day when the work is completed.*
2. *Choice two is to pay you each day on a doubling scale. I would pay you one penny
on the first day, doubled to two pennies pay on the second day, then doubled to four
pennies pay on the third day, and so on.*

Before calculating their answer, ask students to record an estimate of choice two. (You may
wish to have them revise this estimate after they calculate day five, day ten, and/or day fifteen.)
The answer is: Choice Two with $10,485.75 in total pay.

Day	Pay	Total	Day	Pay	Total
5	.16	.31	15	163.84	327.67
10	5.12	10.23	20	5,242.88	10,485.75

Discussion:
- Ask how long it took for choice two to become greater than choice one. (Day 16)
- Discuss in which period of time was compounding (doubling) the most impressive, the first five days or the last five days.
- Discuss how investing relates to this activity.

Pay Yourself First – Growing Money Graph
Answer Key