### Assembly Ideas for The Toothpaste Millionaire (2006) by Jean Merrill

#### 1. How much is a million?

In an effort to conceptualize the number one million, share the book *How Much is a Million* by David M. Schwarz. The pictures could be scanned and displayed on a large screen.

In the novel, Rufus actually earns one million dollars. This is a term that is often used, but rarely understood. The picture book can help students have a better grasp of the large number.

Alternatively, or after sharing the pictures of one million, host a trivia competition. Create a few teams with student members from all grade levels. The teams will be read a question (also could be displayed on a large screen). Teams will each provide their answer (written on individual whiteboards). The correct answer is displayed. Teams with correct answers receive a point. Tally up the scores after the trivia quiz to determine the winning team.

With a better concept of the number one million, students will be ready to appreciate and grasp the impressive business Rufus conducts in the novel.

Million Trivia

How long is one million seconds? 12 minutes **12 days** 12 months 12 years

How long would it take to count to one million out loud? 23 minutes 23 days 23 months

23 years



If you stacked one million pages on top of one another, how tall would that be?

#### A 35-story building

- 35 inches
- 35 feet

35 miles

If you laid out one million book pages how much would it cover?

### 8 football fields

football field
football fields
football fields

How much does \$1 million weigh in bills?

#### 2000 pounds

2000 ounces 2000 kilograms 2000 feet

How long would it take to spend one million dollars if you spent \$1000 a day?

### 2.75 years

- 2.75 months 2.75 days
- 2.75 lifetimes

How old are you if you are one million seconds?

#### 11 days

- 11 years
- 11 minutes

How many zeros are in one million? 6

- 9
- 3
- 10



How long is one million miles? 4 times around the equator 40 times around the equator 400 times around the equator

How big of a bowl would you need for one million goldfish? **One that would fit a whale** 

How many Earths fit in the Sun? One million

Who is on the one-million-dollar bill?

There isn't actually a one-million-dollar bill. The highest denomination of US Currency is the \$10,000 bill.

#### 2. Can You Spend a Million Dollars

Have the song, "If I Had a Million Dollars" playing as students enter the auditorium. Select one student to come on stage. Declare that they have won a contest and present the student with wads and wads of (fake) cash, \$1,00,000. Encourage excitement among the crowd. Explain to the student (and audience) that the money is available only if s/he (with the audience's help) can spend the entire one million dollars in less than ten minutes. Ask the student and audience if they are up for that challenge.

The student will make suggestions or take suggestions from the audience about items to purchase with the money. Resident researchers (teachers) will use technology to quickly find out market value prices for the items suggested. Another teacher will record the balance sheet and subtract the amounts (on a large board) to track spending.

As the timer begins to count down, the student and audience will indicate an item (Lamborghini), a teacher will find the approximate price (\$200,000), and another teacher will subtract that from the grand total (\$800,000 remaining). Student should be as specific as possible so prices can be determined.

After the fun and celebration of spending one million dollars, share with the audience that in the upcoming novel, the main character actually does indeed make that much money! And he's only in middle school! How is that possible?



#### 3. "SMART"

Display or have someone read aloud the poem "Smart" by Shel Silverstein. Throughout the reading, have a teacher reenact the story along with other faculty or student volunteers. Using large coin props to exaggerate the poor trades will add to the audience's amusement as they witness the un-economical decisions made by the teacher. Enhance the drama of every monetary trade by having the teacher consult the audience as to whether it is a worthy trade or not. Despite the audience's know-how and likely groans of frustration, the teacher continues as the poem suggests. Ultimately, an announcer can segue to the new novel indicating that the main character, Rufus, has much better "smarts" about money than the actor/teacher. E.g. "Now, if you want to meet someone who can show us all how NOT to make all these mistakes, let's meet Rufus from our selection, *The Toothpaste Millionaire*."

#### Smart

#### **By Shel Silverstein**

My dad gave me one dollar bill 'Cause I'm his smartest son, And I swapped it for two shiny quarters 'Cause two is more than one! And then I took the quarters And traded them to Lou For three dimes -- I guess he didn't know That three is more than two! Just then, along came old blind Bates And just 'cause he can't see He gave me four nickels for my three dimes, And four is more than three! And then I took the nickels to Hiram Coombs Down at the seed-feed store, And the fool gave me five pennies for them, And five is more than four! And then I went and showed my dad, And he got red in the cheeks And closed his eyes and shook his head --Too proud of me to speak!



#### 4. Assembly Line

Explain to student audience that you need help with a project. You have to make 100 paper airplanes. The airplanes have to be completed by THIS AFTERNOON, and you don't know what to do! Elicit help from one or two students that know how to make paper airplanes. Call them up on stage.

On stage, provide them with paper and a table. Have them start making paper airplanes. After about a minute, stop the process to check and see how many have been completed. Each student will probably have finished only about one. Dramatically insist that this is NOT going to produce enough airplanes fast enough. Plus, all of the planes are supposed to be exactly the same. Share your dilemma with the audience and elicit suggestions. What can be done??

Come to the idea of an assembly line with more workers. Combine the small tables to make one long work station that can serve as an assembly line. Label each station with a picture of the job that will be performed (first fold, second fold, wing one, wing two, etc...). Using the same volunteers plus a few more, explain the new system and what each student's job will be. Start the assembly line with paper. Have the last station count the completed airplanes and indicate when the final number (100) is reached. Time the entire process. Play music while the assemblers work and have audience work to encourage and support them in their efforts.

Compare the finish time and the results to the original method of making one plane at a time.

Ask students to identify the advantages of the assembly line. And anything that can wrong! Explain that Rufus, in our novel, uses an assembly line to maximize his business production.

- 1. Fold the paper in half vertically.
- 2. Unfold the paper and fold each of the top corners into the center line.
- 3. Fold the top edges into the center line.
- 4. Fold the plane in half toward you.
- 5. Fold the wings down, matching the top edges up with the bottom edge of the body.



#### 5. Hector

Have a teacher dressed as the character Hector (mechanic, carrying tools). Hector should be in the midst of working on some type of machine when he notices the audience. In his monologue, he will reminisce about his young friend Rufus and what an entrepreneur he is. Hector will reveal how Rufus helped his family by giving him a job and restoring the old factory where he worked.

"Well, Hello there!

How are you doing?

Don't mind me. I was just working on this here machine. This is an important machine in my factory. Yeah, I own a factory. Can you believe it? Well, I have my friend Rufus to thank for that. Do you know Rufus? You remind me of him. He's about your size, maybe just a tad older than you.

Yep, good ole Rufus. He changed my life. All for the better. My success today is all because of that middle school boy. Well, and his friends. Boy did he have a great group of buddies. Hard workers they were. Yep, Rufus sure did save me and my family. He got me a job, got me into business, even made me a stockholder. Who could even imagine that? I can't believe what a biz whiz that kid is.

You sure you haven't met Rufus? You sure would like him. I know you would. Well, let me get back to this old machine. It needs a tune up, and I'm the finest mechanic around, if I do say so myself. Nothing I like better than tinkering with these here machines.

Alright then, you have a good day. And if you see my buddy Rufus around, you tell him I said, 'Hi and thank you very much!'"

