



# #10066 HOW MUCH IS A MILLION?

WESTON WOODS STUDIOS, 2000  
Grade Level: K-3  
8 mins.

## DESCRIPTION

Marvelosissimo the Mathematical Magician uses stars, goldfish, and kids to make the concepts of a million, a billion, and a trillion clear and not quite so intimidating. Animated version of the book by David M. Schwartz.

## ACADEMIC STANDARDS

### Subject Area: Mathematics

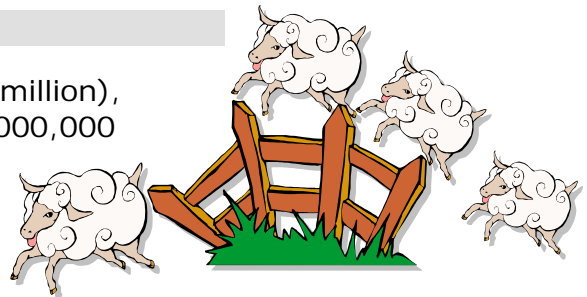
- Standard: Understands and applies basic and advanced properties of the concepts of numbers
  - ♦ Benchmark: Understands that numerals are symbols used to represent quantities or attributes of real-world objects (See INSTRUCTIONAL GOALS 1.)
  - ♦ Benchmark: Understands basic whole number relationships (e.g., 4 is less than 10, 30 is 3 tens) (See INSTRUCTIONAL GOALS 2.)
  - ♦ Benchmark: Understands symbolic, concrete, and pictorial representations of numbers (e.g., written numerals, objects in sets, number lines) (See INSTRUCTIONAL GOALS 1.)

### Subject Area: Language Arts–Reading

- Standard: Uses reading skills and strategies to understand and interpret a variety of literary texts
  - ♦ Benchmark: Uses reading skills and strategies to understand a variety of familiar literary passages and texts (e.g., fairy tales, folktales, fiction, nonfiction, legends, fables, myths, poems, nursery rhymes, picture books, predictable books) (See INSTRUCTIONAL GOALS 3.)

## INSTRUCTIONAL GOALS

1. To learn about the numbers 1,000,000 (one million), 1,000,000,000 (one billion), and 1,000,000,000,000 (one trillion).
2. To illustrate comparisons.
3. To promote the reading of children's literature.



## VOCABULARY

1. billion
2. count
3. goldfish bowl
4. kids
5. miles
6. million
7. page
8. Saturn's rings
9. sea harbor
10. star
11. tower
12. trillion
13. zillion



## BEFORE SHOWING

1. Read the book *How Much is a Million?* by David M. Schwartz. Discuss which is larger: a million, a billion, or a trillion.
2. Discuss magicians. Describe magicians you have seen and the feats they performed. Perform simple magic tricks. Then show how the magic tricks are done.

## AFTER SHOWING

### Discussion Items and Questions

1. How high would a tower of one million kids be? One billion? One trillion?
2. About how long would it take to count to one million? One billion? One trillion?
3. Describe the sizes of "bowls" big enough to hold one million, one billion, and one trillion goldfish.
4. If there were one million tiny stars on pages of a book, how many pages would be filled? How far would pages of one billion stars stretch? Pages of one trillion stars?

### Applications and Activities

1. Practice "guestimating."
  - a. Write down guesses of how many stars can be drawn on one piece of construction paper. Draw the stars. Count the stars. Check to see who had the closest guess.
  - b. Discuss if there would be more or less stars on the paper if the stars were smaller or larger.
  - c. Each person chooses a different object to draw on a paper. Fill the paper with objects. Guess how many objects are on the paper. Count. See who is closest.
2. Imagine a stack of one million pancakes.
  - a. Discuss how far the stack would reach.
  - b. Discuss how long it would take to eat them.
  - c. Discuss what to do with one million uneaten pancakes. Draw a picture showing the uses of that many pancakes.
3. Have a counting contest.
  - a. Put a large bucket of coins on one table, a bag of buttons on another table, and a bowl of beans on a third table.
  - b. Discuss strategies to most effectively count the items with a team.

## C a p t i o n e d M e d i a P r o g r a m

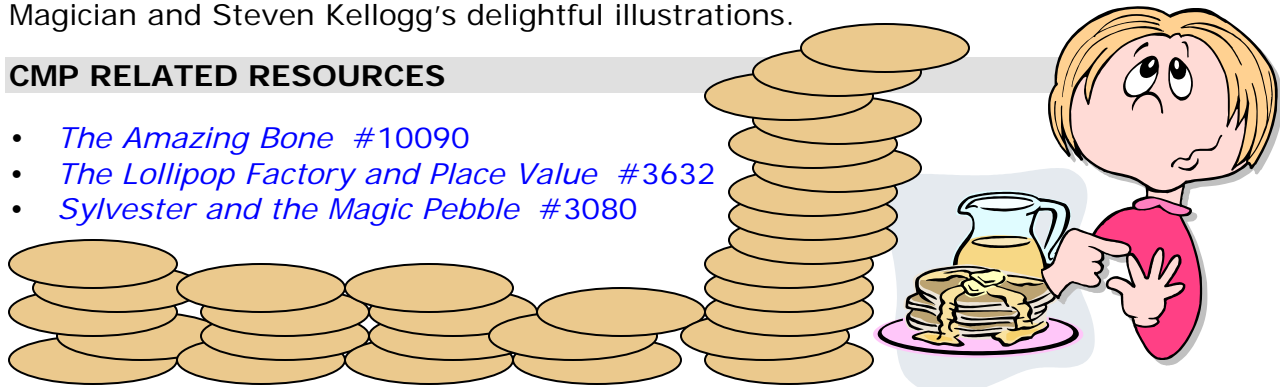
- c. Working in teams, count the items on each table.
- d. The first team to accurately count all of the items wins the contest.
4. Make "magic wands" with empty paper towel rolls, taping aluminum foil stars to the ends. Use the wands to magically transform one another into million, billions, or trillions of things.
5. Start a long-term class project to collect one million of something (i.e., pop bottle lids, buttons, etc.).
  - a. Enlist the help of the school and the community.
  - b. Track weekly and monthly progress. Use graphs or other visuals to show the progress.
6. Read other number and counting books.
  - a. *Can You Count to a Googol?* by Robert Wells.
  - b. *On Beyond a Million: An Amazing Math Journey* by David M. Schwartz.
  - c. *If You Made a Million* by David M. Schwartz.
  - d. *Millions to Measure* by David M. Schwartz.
  - e. *One Hundred Hungry Ants* by Elinor Pinczes.
  - f. *How Much, How Many, How Far, How Heavy, How Long, How Tall is 1,000?* by Helen Nolan.

### SUMMARY

Children love to count, but when the numbers get so big that they seem to go on to infinity, the idea of "How many?" becomes a difficult concept to grasp. Children often have trouble imagining just how big these big numbers really are! *How Much Is a Million?* offers concrete examples of what a million children, a billion goldfish, or a trillion stars might look like with the help of Marvelosissimo the Mathematical Magician and Steven Kellogg's delightful illustrations.

### CMP RELATED RESOURCES

- [The Amazing Bone #10090](#)
- [The Lollipop Factory and Place Value #3632](#)
- [Sylvester and the Magic Pebble #3080](#)



### World Wide Web



The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and "kid safe" sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- **AUTHOR: DAVID M. SCHWARTZ**

<http://www.davidschwartz.com/>

This is the author's official Web site. It contains a book list and pictures, biographical information, and other links.



- **THE MEGAPENNY PROJECT**

<http://www.kokogiak.com/megapenny/one.asp>

Show your students what a million or more pennies looks like. Show this Web site to your students when teaching the concept of a million.



- **COUNTING**

<http://www.aaamath.com/B/cnt.htm>

This Web site from AAA Math has counting graphics and online interactive counting games categorized by how far the counting goes or if it is skip counting (counting by twos, etc.).