

# A TEACHER'S GUIDE TO CLASSROOM ACTIVITIES

## The Truth about Poop

by Susan E. Goodman, illustrated by Elwood H. Smith

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Funny, fascinating, and educational can be a hard combination to come by. Yet *The Truth About Poop* uses gentle humor to explain the serious science and history behind one of childhood's favorite topics. *The Truth About Poop* is appropriate classroom fare. Goodman doesn't go for gross—either in material or presentation. Instead the book reveals the fun, factual, and little known side of this popular subject. And kids—even reluctant readers—are so busy turning its pages that they don't notice they are effortlessly absorbing lessons in biology, anatomy, archaeology, history, and multiculturalism.

There are many ways *The Truth About Poop* can be used in the classroom starting with the activities below:

### Poop Math

*The Truth About Poop* has many facts and figures that can be used in math lessons at all grade levels.

Here are some number-filled facts and a few suggestions on how to use them:

Page 5. The skipper caterpillar is just an inch and a half long but can shoot its poop a distance of six feet. How many times its length does this caterpillar shoot its poop? If you could throw something that many times your height, how far would it go?

Page 8. Rabbits produce 500 pellets of poop a day. How much is 500? Have children in lower grades count out 500 m&m's (the brown ones, after all, are perfect!) by first creating piles of ten or twenty-five.

Page 8. Scientists have found a chunk of fossilized *T. rex* poop that weighs 16 pounds. Sixteen pounds! How much is that exactly? Have your students use different sized rocks and combine them to create this weight. They can weigh the rocks individually and then add them together to get the 16 lb. total. They can round the individual weights up and down, add the rocks together and see how close they come to the 16 lb. total.

Page 9. Geese poop, on average, once every 12 minutes. Sloth, on the other hand, poop only about once a week. Wow—the possibilities here are endless. How many times an hour do geese poop? How many times a day? A week? A month? A year? How often do sloth poop each month? Each year? How many more times a year does a goose poop than a sloth? What is the ratio?

Page 15. Each day, on average, people produce 1 ounce of poop for each 12 pounds of their body weight. How much poop would a 60-pound kid produce? A 96-pound kid? How about basketball player, Shaquille O'Neal, who weighs 338 pounds?

Want some more numbers to play with? Try looking at pages 8, 15, 23, 24, 26, 34, 36, and 37.

## The Scoop on (Worm) Poop

*The Truth About Poop* applauds Zoo Doo (page 31) and Milorganite (page 25) as great fertilizers, but they aren't the only ones. In fact, you can make your own fertilizer from worm poop by setting up a worm bin in the classroom. Lessons abound—you can discuss decomposition, composting, worms (they have five pairs of hearts and eat half their weight in food each day!), and, of course, the usefulness of castings (worm poop) as one of the world's most important organic fertilizers.

Making a worm bin is relatively easy; the kids can help. It involves setting up a wood or plastic box with wire mesh, moistened newspaper, and worm food (kitchen scrapes like ground-up eggshells, fruit, and vegetable scraps). Two sites that explain the process are: <http://whatcom.wsu.edu/ag/compost/Easywormbin.htm> and [http://www.sierraclub.org/e-files/worm\\_bins.asp](http://www.sierraclub.org/e-files/worm_bins.asp).

Then, of course, you need worms. Red worms are best and can be ordered at any number of sites including <http://www.topline-worms.com/>.

## Poop Research

*The Truth About Poop* is chock-full of unusual facts. Where did they all come from? How did the author find them all?

This exercise will help kids develop research skills and identify some of the different resources available—nonfiction books, reference books, legitimate websites, magazines, documentaries, experts, museums, etc. Hopefully, it will also help them realize that research can be fun.

As an introduction to the activity, read aloud *The Truth About Poop*'s afterward, "The Poop on Poop," on page 40.

Then go through the book with your students, creating a sheet of some of the book's most interesting facts.

Speculate together on the sources the author used or could have used to find each one. Then check some of those sources to see if you can find the information. Or find more information on the subject.

You might also work with the class to find poop facts that aren't in the book, ones they would want to add if they were authors of the book.

## "A Rose by Any Other Name..."

A lesson on synonyms has never been so much fun. Have the kids come up with different words for poop (polite ones only!). They can start by sifting through *The Truth About Poop* to find more general words like "dung" and "droppings" and specialized ones like "spraints" (otter poop) and "fumets" (deer poop).

Then they can expand their search, perhaps learning for the first time how to use a thesaurus or a synonym dictionary. They can also begin to appreciate the specificity of our language as you ask them to find out the meaning of words like coprolite (fossilized poop), (worm) castings, (rabbit) crottels, and (bat) guano.

### **Brown Balls** (Don't worry, they're just cookies!)

These simple chocolate cookies are a fun, slightly gross, way to celebrate the Poop Unit. They do not need to be baked, so if you can make the cookies in the classroom, students can mold them into cow pies, pellets, etc.

3 cups quick rolled oats  
1 cup sweetened, flaked coconut  
½ cup cocoa  
½ teaspoon salt  
2 cups sugar  
½ cup milk  
½ cup (1 stick) butter  
1 teaspoon vanilla

In a large bowl, combine the oats, coconut, cocoa, and salt. Blend well.

In a saucepan, combine the sugar, milk, and butter. Bring to a boil over medium heat and cook, stirring, for three minutes.

Remove the sugar mixture from the heat and stir in the vanilla.

Pour the sugar mixture into the dry ingredients and stir until blended.

Drop by teaspoonfuls onto wax paper. Let cool.

### **Other Ideas:**

- Get hunters and/or wildlife specialists to come talk about their uses of scat.
- Have an educator from your local wastewater treatment department come talk to your students about what happens after they flush their toilets.
- Watch an ant farm closely to see that the ants do with their poop. Find ways to measure it. Research to find out how other ants/creatures deal with their waste.
- Use the same idea for other classroom pets.
- Send away for owl pellets (owls regurgitate the bones of their prey neatly wrapped in fur) and dissect them in class. Or, visit <http://www.kidwings.com/> and do a virtual pellet dissection.

### **Contact Information**

If you have any questions for Susan Goodman, or want any more information about her, her books, or her presentations during school visits, please go to her website at [www.susangoodmanbooks.com](http://www.susangoodmanbooks.com). Or, contact her directly at 617-522-0158 or [sugoodman@aol.com](mailto:sugoodman@aol.com).