



100 Activities for the 100th Day

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As February approached, I heard several primary-grade teachers talking about activities for the 100th day of school. This sounded like a worthwhile celebration for our whole school, which has about 220 students in grades pre-K–6. At a faculty meeting, I suggested that everyone join in the festivities. Of course, we had to come up with a variety of activities that would be appropriate for all grade levels and subject areas. When the 100th day arrived, we were ready! Everyone in the entire school participated. The secretary made a badge for each student who had been present for 100 days, the cafeteria workers marked each 100th tray to receive a special treat, the principal rang the school bell on the 100th minute, and the custodian just smiled as we put sticky-note estimates everywhere in the school. The entire school was involved in many activities, but I thought that the occasion was a terrific opportunity to show my students that mathematics is everywhere. This article shares in detail 5 mathematics activities that I did with my students and lists 100 that you might try with yours.

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100 Students Lying Down End to End

On the 100th day, my fifth graders and their first-grade partners went outside to the front of the school, looked down the sidewalk, and tried to imagine how far a line of 100 students lying head to foot would reach. Because we had only 42 students, the class decided that everyone would have to lie down twice and 16 students would have to lie down three times. The fifth graders were in

charge of hanging on to their first-grade partners and keeping track of their turns in line. We gave each student a sticky note for his or her name. Then, with their partners, the students walked as far down the sidewalk as they thought 100 students would reach.

After placing their sticky notes, all the students came back to the starting point that we had marked on the sidewalk. Then they began to lie down end to end. The students kept track of the number of others who had taken turns, and we marked each increment of 10 students on the sidewalk with brightly colored chalk. We were careful to alternate between fifth graders and first graders to keep our length per student at an average. After we had marked 25 students, we all looked at the distance covered so far and gave the students the opportunity to change their sticky-note estimates. When we had marked the 100th student, half the students went back to the start so that we could all look at the entire distance and have a visible marker at each end.

100 Miles from Here Is . . .

For this activity, each group of three fifth-grade students had a map of Montana. Using a compass, the students drew a circle with a 100-mile radius with our town at the center. Because Montana is a rural state, it was easy for the students to count the number of towns in the circle. Using county population information, they could also estimate how many people lived in that area. Then came the intriguing question: How long would it take us to walk to the edge of the circle?

First, we had to figure out each student's personal walking speed. We went outside and marked off 25 yards. Each student walked that distance while a partner recorded the time. It was important to emphasize that this was not a race! Each student walked the distance three times, alternating with a partner as the walker and the timer. Then they calculated the average of their three walks to find the number of seconds needed to walk 25 yards. This number could then be converted to a walking speed in yards per second. For example, if a student averaged 18 seconds to walk 25 yards, then that student's walking speed is $25 \text{ yards} \div 18 \text{ seconds} = 1.4 \text{ yards/second}$. Back in the classroom, we discussed how we could decide what their speeds would be in miles per hour, because we were imagining a walk of at least 100 miles. We multiplied each student's speed in yards per second by 60 seconds to come up with his or her speed in yards per minute. We multiplied that number by 60 minutes to get the speed in yards per hour. Finally, we

divided by 1760, the number of yards in a mile, to arrive at the speed in miles per hour. For the example that we used previously, we got a speed of $1.4 \text{ yards/second} \times 60 \text{ seconds/minute} \times 60 \text{ minutes/hour} \times 1 \text{ mile}/1760 \text{ yards} = 2.9 \text{ miles per hour}$.

Next we asked, If we left right now, when would we get to the edge of the circle? The calculation depended, of course, on the route each student decided to "walk" to the edge of the 100-mile circle. The students had to decide whether they were going to walk on roads or go across country. If they went across country, they had to account for land formations that would come between themselves and their goals.

After these personal calculations, groups of students investigated how long it would take to go the same distance by horse, car, train, airplane, and rocket. My father raises both draft and saddle horses, and we used his expertise for the horse speeds. The students were amazed to find out that a good saddle horse can walk 40 to 50 miles a day but that the rule of thumb for a team of draft horses is only 20 miles a day. The average speed that the students used for an automobile was 65 MPH; for a train, 90 MPH; for an airplane, 270 MPH; and for a rocket, 18 000 MPH. The times required to get to the edge of the 100-mile circle ranged from an amazing 20 seconds by rocket to 5 days by a team of horses. The groups made posters that showed their specific routes, total distances traveled, speed of transportation choices, and times the travel would take.

Can We Really Eat 100 Things?

By lunchtime, we were exhausted but eager to join our first-grade partners again for something to eat. Each student had brought a lunch that contained 100 items! Fifth graders, first graders, and teachers could hardly wait to show what they had chosen. Many students had brought bags of raisins, potato chips, tiny marshmallows, chocolate chips, and peanuts; and many students had funny stories to tell about counting foods in the chaos of getting ready for the day. Before we could "dig in," the partners had to tell each other what they had brought and show that the total was 100 items. Many of the students counted the food containers, lids, silverware, and even the paper bag. A number of the children expressed doubt that they could eat 100 things for lunch. Amazingly enough, most succeeded! ☞

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Presentation of “100 in My Life”

Because I did not want my students to think of 100 as only a measurement, I asked them to bring something to school that represented 100 and make an oral presentation about it. Whatever they brought had to be important to them personally, but it could not be a collection of 100 things, not even baseball cards! Tanya’s family was remodeling their basement, so she brought in 100 nails pounded into a scrap piece of lumber to form the numeral 100. Her father had helped her find most of the nails in the garbage pile on the floor. Nick brought a china teapot thought to be 100 years old, which belonged to his great-grandmother. I got very nervous when I saw the beautiful piece of antique china come out of his backpack! The night before, Anna and Lisa, twins in the class, had called to ask whether they could bring their great-grandmother as their representation of 100. I laughingly asked whether grandma was 100. Anna said, “Of course, that’s why I wanted to bring her.” Because the height of cold and flu season was at hand, Grandma decided not to come to the elementary school, so Anna and Lisa had to think of something else. Shanna brought a leather book cover that her father had tooled with the outline of Montana in honor of the state centennial.

100-Step Destination

In the afternoon, we again joined the first graders to serve as their note-takers. Each first grader with his or her fifth-grade partner would start at the classroom door and walk 100 steps in any direction. The path did not have to be in a straight line. When the partners reached the 100th step, the first grader described the place they ended up but did not tell the exact location. The fifth graders were present only to record the descriptions, not to write them for their partners. We all returned to the first-grade room and formed four groups. The first graders took turns reading their descriptions of the 100-step destinations. The rest of us tried to guess where they had ended up.

Other 100th-Day Activities

The following is a list of 100 activities that you and your students might enjoy. Some are very quick and can be done by individual students, whereas others take more preparation and are much more fun to do with groups.

Activities in preparation for the 100th day

1. Bring in a collection of 100 things. Compare the collections to find the greatest and least volume, weight, length, and so on.
2. Bring a lunch with 100 things.
3. Prepare an oral presentation on “100 in My Life.”
4. Put up a string of 100 lights.
5. Find a recipe for a dessert that was popular 100 years ago.

Mathematics activities

6. Stand, and close your eyes. Sit down when you think 100 seconds has elapsed.
7. Pop 100 kernels of popcorn in an air popper. Do not put the top on. Where do you predict that the popcorn will land? Mark where each piece lands to form a scatterplot. Can you make any predictions about the next batch?
8. Find out if 100 peanuts will be enough to make peanut butter for a sandwich.
9. Display three clear plastic bags or jars of some small objects, such as marbles, grapes, or Legos. Have the children decide which container has exactly 100 items.
10. Estimate and then measure 100 feet, inches, or meters.
11. Make a necklace of 100 cereal O’s or pieces of macaroni. Color code each group of ten or each 10th item.
12. Count by 2s, 5s, and 10s to 100. Count by 100s to 1000.
13. List animals that live to be 100 years old. Do they have similarities?
14. List 100 things that would be hard to do without.
15. List 100 ways that we use numbers.
16. Blow up 100 balloons, and pin them to the bulletin board. Graph the colors.
17. Count 100 coated candies. Sort and graph them by color.
18. Estimate how far down the hall 100 cutouts shaped like feet will reach. Cut the feet out of construction paper to check the estimates.
19. Estimate the height of 100 students. Of 100 teachers. Of 100 schools.
20. Find out the length of 100 pencils.
21. Spend \$100 using advertisements from a local newspaper.
22. Make up word problems for which the answer is 100.
23. Calculate the value of 2^{100} .
24. Write 100 in base five, base three, and base twelve.
25. Find out the value of 100_{five} , 100_{three} , and 100_{twelve} .

26. Calculate what percent of the school year is already past and what percent remains.
27. Draw a line that is 100 inches long.
28. Write 100 in three different numeration systems.
29. Imagine what you would buy if you had \$100. Write your answer on the back of a “\$100 bill” that you design.
30. How many stars can you draw in 100 seconds? How many times can you write your name?
31. Write the numbers from 1 to 100 in a blank hundreds-chart.
32. Stamp 100 images. Arrange your stamps in groups of 10.
33. Make several Unifix cube trains and have the children decide which train they think is 100 cubes long.
34. Find the weight of 100 books.
35. Find out what combinations of two-digit numbers add to 100.
36. List ways that you could write 100 (e.g., 10×10 , $200 - 100$, $45 + 55$, and so on).
37. Find two children who weigh a total of 100 pounds.
38. Estimate how far you could get in 100 minutes or hours by train, foot, horse, airplane, car, or rocket.
39. Construct four polygons that each have an area of 100 square units.
40. Create a design with 100 pattern blocks.
41. Build the highest tower possible in 100 seconds.
42. Find a combination of names that has exactly 100 letters.
43. Find out how far 100 students will stretch on the sidewalk.
44. Measure objects in your school. Chart them as shorter than 100 centimeters, exactly 100 centimeters, or longer than 100 centimeters.
45. Ring the bell at the 100th minute of the school day.

Art activities

46. Crumple a piece of paper, then draw a picture of what you will look like when you are 100. The wrinkles are already in the paper.
47. Draw a transformation of 100.
48. Make a collage of 100 things that you love or 100 things that have another common theme.
49. Build something with 100 blocks, Unifix cubes, toothpicks, or other small objects.
50. In groups, make a picture using 100 squares, circles, triangles, or other shapes.
51. Make a collage of 100 handprints or footprints.

Music activities

52. Sing the first 100 words of a song.
53. Play the first 100 measures of a piece of music.
54. Sing a song that starts with 100 objects and eliminates one with each verse.

Physical education activities

55. Bounce a ball 100 times. How long did it take?
56. Run 100 feet or meters and record student times. What are the class mean, median, and mode?
57. Do 100 jumping jacks, sit-ups, hops, skips, or other exercises.
58. Run in place for 100 seconds.
59. Have a cooperative 100-minute run for your school or class.

Science activities

60. Estimate the volume of 100 kernels of popcorn. After popping, will it be enough for everyone to have some? Too little? Too much?
61. Estimate, then find out, whether 100 turns of the pencil sharpener will “use up” an entire pencil.
62. Find out which element is number 100 on the periodic table of elements.
63. Find the volume and weight of the air in 100 balloons.
64. Find something that has a mass of 100 grams.
65. Find 100 objects that will fill a 5-ounce cup.
66. Estimate the weight of 100 children, 100 adults, or 100 pets.

Social studies and history activities

67. Send postcards to 100 community leaders, thanking them for a job well done.
68. Make a graph of each students’ favorite activity in the first 100 days of school.
69. Make a timeline of the most recent 100 years of your state’s history.
70. List the 100 largest cities in the United States and in the world.
71. List the 100 most or least populated countries.
72. List the 100 largest or smallest countries.
73. Research what life was like in your town 100 years ago.
74. Find out the value of 100 acres of a local crop.
75. Find out the value of 100 acres of local cropland.
76. Find out the cost of 100 lots downtown.

English and creative-writing activities

77. Estimate where you will end up if you take 100 steps. Write a paragraph that describes where you ended up without stating the exact spot.
78. Imagine living 100 years from now. Write a short story about your day.
79. Write about an adventure that could happen in 100 minutes.
80. Write a story about what it would be like to live in a place where the temperature is always 100 degrees above or below zero.
81. Prepare a list of questions that you would ask someone who is 100 years old.

Miscellaneous activities

82. Be absolutely quiet for 100 seconds.
83. Figure out when 100 hours from right now will be. What could we do between now and then?
84. Wear 100 pins, bells, or ribbons.
85. List “100 Wonderful Things about Me.”
86. Use a calendar to find the month and date that is 100 days from now.
87. Graph the favorite hot lunches of the first 100 people in the lunch line.
88. Put together a 100-piece puzzle.
89. Make a “living 100” on the playground. Take a picture.

Activities after the 100th day

90. Make a classroom collection of pictures of people who are 100 years old.
91. Read aloud *The Hundred Dresses* (Estes 1974).
92. Collect and recycle 100 aluminum cans.
93. Estimate the height and weight of 100 newspapers for recycling.
94. Write a family history covering 100 years.
95. Read 100 pages of your favorite book.
96. Write a song to celebrate 100 days.
97. Rewrite a fairy tale; use 100 everywhere you can.
98. Design a container that would hold 100 basketballs.
99. Find out when the 100th day is in Australian schools.
100. Have a scavenger hunt to find 100 objects with numerals printed on them.

Reference

Estes, Eleanor. *The Hundred Dresses*. Illus. by Louis Slobodkin. Orlando, Fla.: Harcourt Brace Jovanovich, 1974. ▲