

Activity Guide and Project Ideas for

100 BUGS!

A Counting Book


FARRAR STRAUS GIROUX
New York

Written by Kate Narita

Illustrated by Suzanne Kaufman

ISBN: 978-0374306311 ♦ Grades K-5



“Packed with great extension possibilities, visually engaging illustrations, and quick rhymes, this read-aloud would be a great addition to any STEM shelf.” —Kirkus Review 

Meet the Team

Kate Palaces Narita is the author of *100 Bugs! A Counting Book*. When she's not out and about driving, teaching fourth grade or cheering on her two teenage sons, Kate lives, writes, and hikes on a small mountain in central Massachusetts. There's a magical part of Mt. Wachusett in every one of her stories. Be it small wonders like darting dragonflies and gorgeous garden phlox, or large wonders like munching moose and beautiful balsam firs, she celebrates nature's bounty each and every day. Visit her at www.katenarita.com.



Suzanne Kaufman is an author, illustrator, animator and lover of school potlucks. She is the author-illustrator of *Confiscated* and *I Love Monkey*. Her previously illustrated work includes books: *All Are Welcome*, *100 Bugs*, *Naughty Claudine Christmas*, and *Samanthasaurus Rex*. Over the years, she's done everything from animating special effects for Universal Television and Discovery Channel, to animating award-winning video games for children. When not tramping through the wilds of the Pacific Northwest, you will find her teaching animation or working in her studio. She lives in Seattle with her husband and two creative daughters of her own. Visit her at www.suzannekaufman.com.



Lisandra Flynn is an editor turned elementary school teacher who works with Kate. She has a flair for design and enjoys creating learning resources for her students and fellow teachers. When she's not teaching or tediously reorganizing her classroom, Lisandra enjoys hiking, crafting, and decorating her home in central Massachusetts, which she shares with her husband, baby boy, and two feisty cats.



100 Bugs! Ten Fun Activities

1. Plant seeds in yogurt cups and chart the plants' growth. For extra fun, place a rubber bug on top of each student's soil.
2. Make dragonfly and butterfly ornaments. You'll need 2 cups or 1 pound of baking soda, 1 cup of cornstarch and 1 $\frac{1}{4}$ cups cold water. Mix baking soda and corn starch together. Add cold water. Cook over medium heat, stirring constantly. When it looks like mashed potatoes, it's done. Cover it with a cool, damp cloth. As soon as it's cool enough to touch, roll it out to $\frac{1}{4}$ inch thickness. Using dragonfly and butterfly cookie cutters, cut out dragonfly and butterfly shapes. Use the end of a chopstick to make a hole at the top of each shape. Bake at 350 degrees for fifteen minutes till they no longer stick to the pan. If play clay shapes don't slide easily off the cookie sheet, cook them for a few minutes longer.
3. Make your own 100 Bugs! Book Trailer. Watch the original trailer featuring Kate Narita and Charlie Mainini's students. Then, make your own. You can print out Suzanne Kaufman's stunning color illustrations at www.katenarita.com/for-educators.html. Click on "Make Your Own 100 Bugs! Book Trailer." Then, send Kate Narita the link to your trailer and she'll feature it on her blog.
4. Recreate the array of 100 bugs featured inside the book. Students can draw their own bugs or you can print out multiple copies of Ms. Kaufman's stunning bugs at www.katenarita.com/for-educators.html. Click on "100 Bugs Array." This can be done on bulletin board paper or you can team up with other classes and 100 students can hold the bugs. Whichever route you choose, be sure to send Kate Narita the photo of the array, use the contact form on her website to reach her, and she'll be sure to put the array of the photo on her blog.



100 Bugs! Ten Fun Activities

5. Is 100 too much? Then, create ten frames with your class. Ask students to draw the insects from the books or print out Suzanne Kaufman's bugs. Then, have ten students come to the front of the classroom. Arrange the students in two rows of five. For the walkingstick page, one student would stand holding the walkingstick picture, while the other nine sat holding their walkingstick pictures. Repeat for the other combinations of ten within the book. Ten frame worksheets can be found at

www.katenarita.com/for-educators.html.

6. Kate Narita and Suzanne Kaufman use a ladder or mirror structure in their book. That means that the second half of the story repeats what happens in the first half of the story. So *100 Bugs!* starts off with sun rising, the kids getting out of bed and then they find these combinations of bugs: 1 and 9, 2 and 8, 3 and 7, 4 and 6. At noon, they find the five and five combination. Then, what happens? The text climbs back down the ladder. The kids find these combinations: 6 and 4, 7 and 3, 8 and 2, 9 and 1. Next, there's the final combination of 10 and 1, followed by the kids in bed, and the moon rising. Other examples of picture books with a ladder or mirror structure are: *Madame Martine* by Sarah Brannen, *The Rain Came Down* by David Shannon, *Boy + Bot* by Ame Dyckman, *A Sick Day for Amos McGee* by Philip Stead and *Old Bear and His Cub* by Olivier Dunrea. Have students write their own stories using a ladder or mirror structure. Go to www.katenarita.com/for-educators.html and click on "Ladder Stories" for a story planner.



100 Bugs! Ten Fun Activities

7. Pesticides harm insects. The following information is directly quoted from The Environmental Protection Agency's 2017 report which focuses on pesticide usage throughout the world from 2008-2012.

“U.S. pesticide usage totalled over 1.1 billion pounds annually in both 2011 and 2012, with herbicides accounting for nearly 50% of total U.S. pesticide usage in 2011 and nearly 60% of usage in 2012 (see Table 3. 1). On average across all reported years (2008-2012), U.S. pesticide use accounted for approximately 23% of total pounds of pesticides applied, 25% of total pounds of herbicides applied, 43% of total pounds of fumigants applied, 12% of fungicides applied, and 6% of insecticides applied worldwide.”

Have readers debate whether or not they think the farm featured in *100 Bugs!* uses pesticides, why or why not. Should farmers use pesticides, why or why not? Randomly divide readers into two sides and have one side argue for the use of pesticides and the other side argue against the use of pesticides. Then, have them switch sides. After the debate, students can write a persuasive essay about why or why not farmers should use pesticides. If you're looking to further explore the pesticide issue with your students, Melissa Stewart's *A Place for Butterflies* and the other *A Place* for companion books, are excellent resources. I use them each year in my classroom to teach cause and effect as well as problem and solution text structure. Go to www.katenarita.com/for-educators.html for persuasive essay outlines. Click on “Bug Debate.”



100 Bugs! Ten Fun Activities

8. Suzanne Kaufman's delightful look-and-find illustrations are tons of fun. Create your own look-and-find learning experience in your school. Print out 100 copies of Suzanne's whimsical insects which can be found at www.katenarita.com/for-educators.html under "Look-and-Find Bug Hunt" or team up with an older class in your school. Ask the older students to draw the 100 bugs featured in the book and hide them in the hallways around the school. Then, give the younger students a copy of the array page in the book. Each time students find one of the bugs, he or she can cross off the bug on his or her array.

9. Kate Narita found one object or animal to rhyme with the ten different flowers in 100 Bugs! Below is a short list of other flowers. Challenge your students to find objects or animals that rhyme with ten of the plants. Bonus if the ten objects/animals can all be found in one setting! Go to www.katenarita.com/for-educators.html and click on "It's Rhyme Time" for the accompanying worksheet.

daffodil	buttercup	pansy	marigold	goldenrod
Tulip	snowdrop	lily	cosmos	dandelion
daisy	snapdragon	milkweed	violet	poppy
clover	columbine	cyclamen	iris	heather
foxglove	heliotrope	hollyhock	jasmine	lilac

10. Create a new insect! Gather egg cartons, pipe cleaners, googly eyes, construction paper, toothpicks and anything else students can use to create their own insects. Remember that all insects have a head, an abdomen and a thorax as well as six legs. What can this new insect do? Is it a pollinator? Does it fly out and about at night or during the day? How far can it jump? Have students name their insect as well as three special qualities it possesses. Have fun! Go to www.katenarita.com/for-educators.html and click on "Build-a-Bug" for the accompanying worksheet.

