

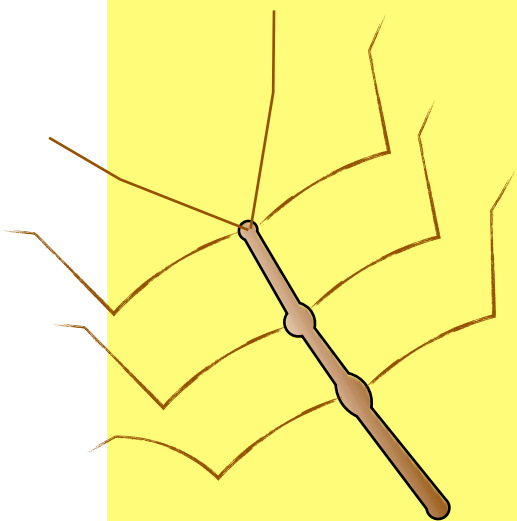
**AUTHOR:**

Kate Narita

ILLUSTRATOR:

Suzanne Kaufman

A young brother and sister wake up early on the farm. They find many different kinds of bugs to count and many ways to add to ten. Count along with them and by the end of the story you will have counted to one-hundred!

Ages: 3 to 7 years**Lexile:** AD440L**ATOS Reading Level:**
2.4**ISBN:** 9780374306311**Copyright:** 2018

100 Bugs!

A Counting Book

How many ways can bugs add up to ten?

**Topics:** addition, counting, counting on

Activities To Do Together: *100 Bugs! A Counting Book* reinforces the idea of composing the number 10 in different ways. The concept of 10 is fundamental to our base-ten number system as well as arithmetic and higher mathematics.

Before reading the book:

- Find out what your child knows about bugs. Which is their favorite?
- Count to ten with your child.
- Tell your child that different plants are included in the story. Snakeroot, woodland sage, white phlox, bugbane, and autumn joy are some of the plants you will hear mentioned.

While reading the book:

- Count the bugs in the illustrations.
- Talk about the similarities and differences among the bugs in the book.

When you have finished reading the book:

- Go outside on a bug hunt. How many different bugs can you find? Keep track of the bugs you find. Take a photo or draw a picture. Try to identify the bug. Write down the date and time of your observation. Try to find out as much as you can about the bug.
- Compare the types of bugs you can see at different times of the day. What do you notice? What do you wonder?
- Choose a bug to learn about. Where does it live? What does it eat? How does it move? How does it live? Alone, in a big group, or in a pair? How long does it live? What else do you want to know?
- Try using an insect-identifying app on a phone. Is the insect rare or common in your area?
- Use a plant-identifying app to learn about the plants that grow in your neighborhood and are beneficial to bugs.



Questions for Mathematical Thinking:

1. What is your favorite bug in the book? Find the page that shows that bug. What are the numbers on the page that add up to ten?
2. At the end of this book you can find out more about the bugs and plants mentioned in the story. Some of the bugs and plants may not be found where you live. Why do you think that is?
3. How many of the bugs from the story live in your neighborhood?
4. Are there bugs that you wish did live in your neighborhood? If so, which ones and why?
5. When you finish reading this book and counting all the bugs, you will have counted to one hundred! What number comes after one hundred?

Early Math Project Resources:

Visit [Activities for 100 Bugs](http://www.earlymathca.org/100-bugs-a-counting-book) (www.earlymathca.org/100-bugs-a-counting-book)

Follow this [link](#) or visit earlymathca.org/external-resources for additional online resources.

Vocabulary

Math words found in the story:

eight, fifty, five, four, nine, one, one hundred, seven, six, ten, three, two

Related math words:

counting on, skip counting, tens

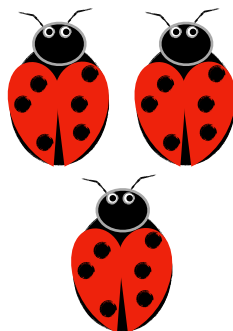
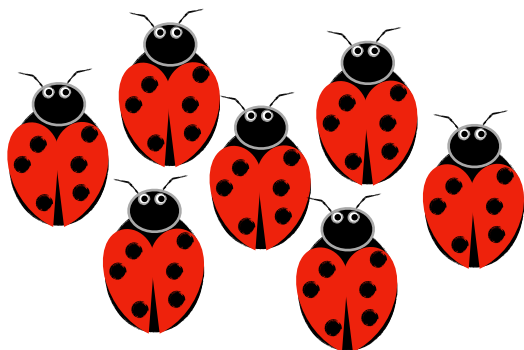
Words to build reading comprehension:

aster, autumn joy, bugbane, bumblebee, butterflies, coral bells, damselflies, dragonflies, katydid, ladybugs, leafhopper, lightening bug, phlox, snakeroot, sneezeweed, spittlebug, walking stick, woodland sage, yarrow

Related Books:

One Watermelon Seed by Celia Lottridge; *Quack and Count* by Keith Baker; *How Many Seeds in a Pumpkin?* by Margaret McNamara

Click this link to the [World Catalog](#) or enter bit.ly/40kYdYv to find *100 Bugs A Counting Book* in the public library.

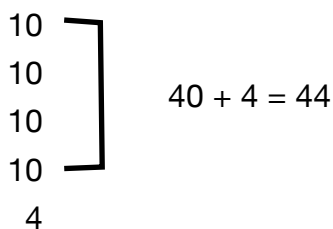
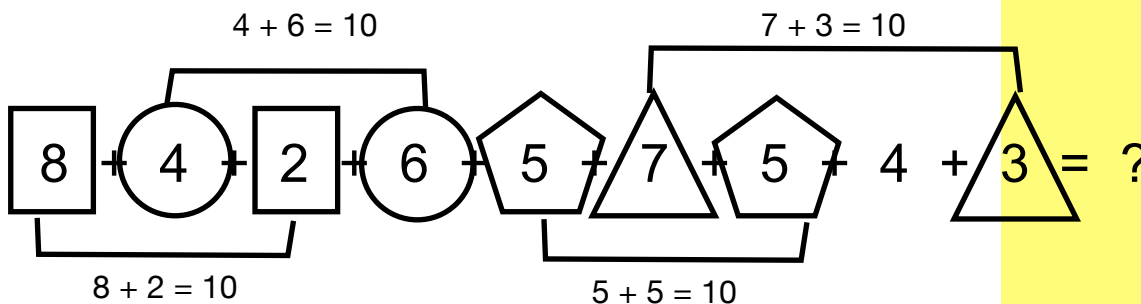


Math Connections:

Use *100 Bugs!* to develop the concept of counting on, to recognize pairs of numbers that add to ten, and to practice simple addition. While reading *100 Bugs!*, notice that on each page there are two groups of bugs that add up to ten: one and nine, two and eight, three and seven, etc. When you walk in your yard or park, see if you can find ten of the same kind of bugs or other objects to count.

Learning the pairs of numbers that add to ten will help your child develop fluency in adding a group of numbers. For example if you have nine numbers to add together, this can be solved more easily by finding the pairs of numbers that add up to ten:

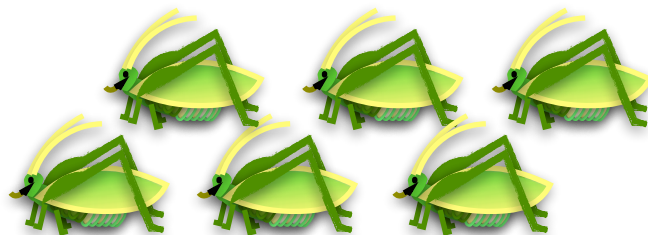
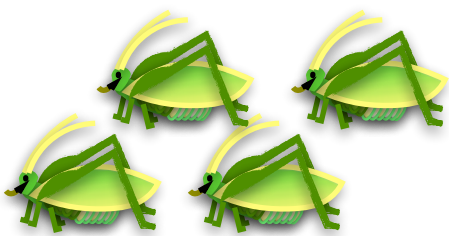
$$8 + 4 + 2 + 6 + 5 + 7 + 5 + 4 + 3 = ?$$



In the problem above, there are four pairs of numbers that add to ten: 8 and 2, 4 and 6; 5 and 5; 7 and 3. Knowing these number pairs is a quick way to add to 40. There is a four that still needs to be added; add the 40 and the 4 and you've got 44. With practice, this can be done using mental math.

You can use this book to introduce your child to the concept of counting on: count the first group of bugs and then **count on** to ten with the second group. For the leafhoppers, it will sound like “one, two, three. So there are three leafhoppers in that first group. Let’s add the next group: remember you already have *three* ...four, five, six, seven, eight, nine, ten.” Practice counting on in everyday situations. Count objects around the house, natural items from outside, count steps, hops, or jumps. Counting on is a more efficient way of counting groups of objects.

You can also use this book to practice adding two groups of bugs together. For example, on the ladybugs’ page the child could count each group and then add them together ($4+6=10$). Find other items you can count in groups and then add together. For example, collect 10 sticks, leaves, or pebbles. Make different arrangements of the materials that add up to 10: $4 + 6 = 10$; $5 + 5 = 10$; $8 + 2 = 10$.



DISCOVERING THE MATH: BOOK GUIDE

Age Level	Related Preschool Foundations and CA Common Core State Standards
Preschool/TK	<p>Number Sense 1.1 Recite numbers in order with increasing accuracy. 1.2 Recognize and know the name of some written numerals. 1.4 Count objects, using one-to-one correspondence (one object for each number word) with increasing accuracy. 1.5 Understand, when counting, that the number name of the last object counted represents the total number of objects in the group (i.e., cardinality).</p>
Kindergarten	<p>Counting and Cardinality K.CC.1, K.CC.2 Know number names and the count sequence. K.CC.4, K.CC.5 Count to tell the number of objects. Operations and Algebraic Thinking K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number...</p>
Grade 1	<p>Operations and Algebraic Thinking 1.OA.1 Represent and solve problems involving addition and subtraction. 1.OA.3 Understand and apply properties of operations and the relationship between addition and subtraction. 1.OA.7 Work with addition and subtraction equations.</p>
Grade 2	<p>Operations and Algebraic Thinking 2.OA.1 Represent and solve problems involving addition and subtraction. 2.OA.2. Add and subtract within 20. Number and Operations in Base Ten 2.NBT.2 Count within 1000; skip-count by 2s, 5s, 10s, and 100s</p>

