

# Book Title: Ten Flashing Fireflies

## Philemon Sturges

### Grade Levels: K-1



by

#### Learning Outcomes:

##### Kindergarten

A4 Represent and describe numbers 2 to 10, concretely and pictorially.

A5 Compare quantities, 1 to 10, using one-to-one correspondence

##### Grade 1

A9 Demonstrate an understanding of addition of numbers with answers to 20 & their corresponding subtraction facts concretely, pictorially & symbolically by:

- using familiar and mathematical language to describe additive and subtractive actions from their experience
- creating & solving problems in context that involve addition & subtraction
- modeling addition and subtraction using a variety of concrete & visual representations, and recording the process symbolically

#### Materials:

- Bags of counters as needed (20 unifix cubes for k and 1)
- Book: Ten Flashing Fireflies by Philemon Sturges
- Story Problem Think Board
- Story Problems – grade specific
- Jars and ‘flies’ to act out the story

#### Lesson Focus ‘Result Unknown’ Problems:

- Discuss learning intention: “I can write an equation that shows how I solved a story problem.”
- Warm-up students with a counting song using the images of fireflies to count (from part/part/whole cards or Subitizing samples – Could sing ‘1 little, 2 little, 3 little fireflies, 4 little, 5 little 6 little fireflies, 7 little, 8 little, 9 little fireflies, 10 little fireflies fly away’)

And/or have students subitize sets of plastic flies scattered under a card on the overhead

And/or give each child 5 ‘flies’ and a cup, have them hid ‘some’ for their partner and then have the partner determine the number of hidden flies

- Read the story, Ten Flashing Fireflies. Students could act out or model the story with jars and unifix cubes as the story is being read.

- Explain to the class that you are going to make a firefly story problem for them to solve. Place some cubes on the jar and some beside on black paper for the night sky. (Select numbers that are appropriate for your grade level.)

I see 4 fireflies inside the jar.  
 I see 5 outside the jar.  
 How many fireflies are there altogether?

- Give the children an opportunity to discuss their strategies, then record their thinking on the Think Board (electronically or on an overhead) an equation that represents the way they solved the problem. Model their thinking with manipulatives and a picture as well.

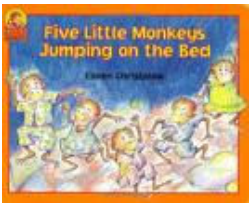

- Repeat for:

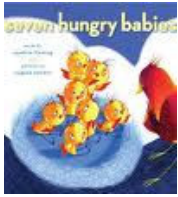





There were 8 fireflies inside the jar.  
 The children took 3 fireflies out of the jar.  
 How many fireflies were left inside the jar?

- Read out more problems for pairs or students to solve. A variety of addition and subtraction problems are purposefully included – all result unknown.
- Have students debrief, first with a turn and talk and then whole group, the strategies they used to help them decide how to solve the problems.
- Ticket out the door: ‘Which type of problem did they find easier to solve – a subtraction or an addition?’

Extensions:

- Set up a math centre with a copy of the book, a jar and some flies for the children to use as they ‘read’ through the book – they could place the flies on the pages of the book – reinforce count.
- Repeat this lesson with different picture books – create the same types of addition and subtraction story problems – result unknown:

	<p><u>Five Little Monkeys</u></p>	<p>Eileen Christelow</p>	<p>A series of counting books where one by one the monkeys end up in trouble.</p>
	<p><u>One Brown Bunny</u></p>	<p>Marion Dane Bauer</p>	<p>One brown bunny goes out one day and finds many friends who would like to play.</p>

	<p><u>Seven Hungry Babies</u></p>	<p>Candace Fleming</p>	<p>A mother bird manages to feed her hungry hatchlings one at a time.</p>
	<p><u>A Creepy Countdown</u></p>	<p>Charlotte Huck</p>	<p>Ten scary Halloween things, such as jack-o-lanterns, bats, and witches, count from one to ten and then back down again.</p>
	<p><u>Ten Friendly Frogs</u></p>	<p>Sally Hobson</p>	<p>Encourages early readers to count backwards while frogs hop along making friends and each time leaving one behind.</p>
	<p><u>How Many Feet In The Bed?</u></p>	<p>Diane Johnston Hamm</p>	<p>Two feet are in the bed, until more family members join in the fun. Could extend the lesson to include skip counting by 2's.</p>
	<p><u>Ten Dogs in the Window A Countdown Book</u></p>	<p>Claire Masurel</p>	<p>After ten dogs are placed in a display window for the whole wide world to see, one by one their numbers diminish until the last canine departs with its new owner</p>
	<p><u>Ten Sly Piranhas A Counting Story in Reverse</u></p>	<p>William Wise</p>	

Note: If you come across any other titles that work well for this lesson, please let me know. Thanks!  
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