

# Five Little Speckled Frogs

## Reader's Guide

The learning value of picture books for teaching emergent numeracy concepts in preschool classrooms has been well documented through research. "Connecting math to literature can boost confidence for children who love books but are wary of math. And students who already love math can learn to appreciate stories in an entirely new way" (Burns, 2015). Establishing a connection for young children between math and literature presents numeracy in both a meaningful and fun way.

*Five Little Speckled Frogs* is the first book in a series of numeracy titles designed to encourage learning in children with or without vision. These books bring pictures to life for both visual and tactile learners. Below are a few suggestions to get you started with the items in this kit. We hope you discover the numerous possibilities in addition to those listed.

### Book Exploration

Fun stories such as this one gradually exposes children to the foundational skills necessary for decoding tactile graphics. Notice that the texture of the frogs used in the book and on the storyboard is very similar to the texture of the rubber frog manipulative. This is to help the child understand the transition from the manipulative to the two-dimensional representation on the page.

Also, note the difference between the frogs sitting on the log and those that are jumping. Be sure to point out the elongated nature of the frogs when they jump.

In contrast, the dragonflies located in random places throughout the book are not as similar in feel to the manipulatives and are more symbolic. However, their particular shape with the long tail

can help the student make that transference. The dragonflies also give the student something to search for on each page.

The log, on the other hand, is a constant on each page and provides a great reference point for the positional relationships of the other objects in the story.

## **Pretend Play**

Frog and Dragonfly Manipulatives: These are included to give the student a three-dimensional representation of the main characters in the book. You may choose to recreate the story using these items along with a log from a building set or other building blocks. If you are feeling especially adventurous and would like to use manipulatives to act out the story, consider using a small tub of water to represent the pool; keeping the book far, far away, of course. Add science fun to the math activity by having the student predict whether the frog and dragonfly will float or sink.

## **Math Concepts**

Many different math concepts and standards can be taught or reinforced using the book and manipulatives.

## **Counting and Cardinality**

The materials included in this kit can be used to teach or reinforce the following concepts for Counting and Cardinality:

- Knowing number names and count sequence.
  - Recognizing written braille numbers 0-5.
- Counting to tell the number of objects.
  - When counting objects, say the number names in standard order.
  - Apply one-to-one correspondence when counting.
  - Answer “how many” after counting the objects in a set.

- Representing a number by producing a set of objects with concrete materials.
- Recognizing the number of objects in a set.
- Comparing quantities.
  - Compare groups of objects up to 5 to determine greater/more or less than and equal to/same.

Sample activity: Show varying amounts of frogs on the storyboard and have the student find the number tile to represent that quantity. Reverse the process by giving the student a number tile and asking them to place the correct number of frogs on the storyboard.

Zero: Although there is no zero mentioned in the book, the concept of zero is introduced during the Pre-K years in both national and state curriculum standards. You may choose to introduce zero, or ignore it for now, as your curriculum permits.

## **Operations and Algebraic Thinking**

The materials included in this kit can be used to teach or reinforce the following concepts for Operations and Algebraic Thinking:

- Understanding addition as putting together and adding to and understanding subtraction as taking apart and taking from.
  - Use actual, physical objects to represent the problem when working on a solution.

Sample activity: Once the student understands the concept of subtraction in the book, you may want to make up a reverse story about the frogs, this time using addition instead of subtraction. Start with one frog jumping out of the pool and sitting on the log, then two frogs sitting on the log, etc.

## Geometry

The materials included in this kit can be used to teach or reinforce the following concepts in Geometry:

- Describe the relative positions of objects using terms such as: *above, below, beside, in front of, behind, and next to.*
- Describe and compare measurable attributes of length and weight.

Sample activity: Using the frog and the dragonfly, discuss the weight of each and determine which weighs more and which weighs less. Discuss the lengths of the two manipulatives and determine which is longer and which is shorter.

## Web Activities

Use the following links:

Five Little Speckled Frogs song from Kids Baby Club

<https://www.youtube.com/watch?v=fF32P24IUCA>

<https://marilynburnsmath.com/blog/>

## Amazon Echo & Google Home

Amazon Echo: Say, "Alexa, let's play the animal game." For each question about the frogs, answer "yes" or "no."

Google Home: Say, "Hey Google, what does a frog sound like?" Google will play a frog sound. Note that Amazon Echo does not do this at the time of this writing.