

A Teacher's Guide to Reading Math Picture Books

Victoria Almeda

BEFORE STORYBOOK READING

- Choose a book that fits the purpose of your reading and responds to your children's interests.
- Reflect on why you want to read a book to your children. You may want to help your children gain number sense, practice problem-solving skills, or apply different strategies for counting. Different books can help you achieve distinct goals for reading.
- Some books are designed to intentionally teach math. In a book about number, children can have fun counting the number of objects on the page. While other books do not explicitly teach math, you can still point out some math ideas found in the story. You can point out the different shapes typically found in most illustrated children's storybooks. Both types of books present opportunities to engage children in conversations about the math content in storybooks.
- Allow your children's interests and experiences to guide your choice of book. Connecting what your children like to the books inside the classroom is a great way to get them ready and excited for reading!
- Before reading to the child, read the book yourself until you are comfortable with the story and feel confident that you can read it smoothly aloud with a child or a group of children.
- Try to look through the book from a child's perspective. Are there any tricky words or illustrations that might produce confusion? Do the illustrations help the reader to understand the text or are they confusing? Prepare to address those problems when reading.
- Evaluate the quality of your chosen book. Take a moment to examine the words and illustrations in the book. Storybooks with colorful, vivid illustrations may also distract and overwhelm your participants. When there are too many things to attend to in a story, it may not be a good book to read and discuss with young children.
- Consider whether the illustrations or words convey the math content of the book accurately. Reflect on whether the illustrations also match the words and do not distract from the math content of the book.
- Books – both their words and illustrations – are a great source of learning knowledge and values. While it is useful for teachers to choose appealing books, it is also important to consider content and values.
- Plan and prepare for your reading session
- Carefully review the book by anticipating your children's reactions. Identify illustrations or words in the book that might be confusing. This can help you address some of the questions your children may ask during reading.
- Prepare a variety of questions throughout the entire story. You can ask questions about things that can be readily seen on the page (e.g., *How many bears do you see?*). Or, you may want to challenge your children to think more abstractly and ask questions that go beyond the page

(e.g., *If we add one more bear, how many bears are there altogether?*).

- Be ready with questions that don't have a fixed answer (e.g., *What do you think is happening on this page?*). These types of open-ended questions invite a variety of different responses. Remember to also encourage your children child shares his or her answer, you can ask, *"How did you know?"*
- It is important to prepare for storybook reading beforehand, so you can decide when it is best to ask a question and engage your children in discussion.

DURING BOOK READING

- Follow the children's lead when reading. Be flexible and sensitive to what your children notice in the storybooks. If an image or word grabs children's attention, follow up the idea and spend some time discussing this part of the story.
- Whether you're reading to an individual child, a small group, or an entire class, the goal is to engage children in a conversation about the story. After asking a question, remember to pause and wait at least 3 seconds before calling for an answer. This gives all children time to process your question and think about an answer.
- In a reading group, you can also encourage discussion by having children turn and share answers with a partner. This provides another way for all children to participate and share their ideas about the book.
- Save some time at the end of the reading to reflect on the book. Encourage children to recall what happened in the story. You can help them keep track of the events in the book by asking, *"What happened first? What happened last?"* You may also want to explore what your children thought of the book and how they personally related to the story. You can ask, *"What do you think of the story? What does this remind you of?"*
- Talking with children about the book can reveal their impressions about the story and what they have learned. It can also encourage children to reflect and make sense of the math content in the storybook.

AFTER BOOK READING

- You can design a follow-up activity based on the math ideas in the storybook. It can be as simple as encouraging children to see and explore the math in the everyday world. For example, after reading a book about counting, you could invite your children to find and count different kinds of objects inside the classroom.
- Another way to extend children's math learning is to re-read the same book. When re-reading stories, you can focus on other math concepts. You may want to discuss vocabulary words about math (e.g., *more, less*) or point out some patterns in the book. Repeated readings strengthen what children have previously learned and equip them to learn new math skills and concepts within the story.