



Math Center: Math Picture Books

Children will recognize and represent groups of up to 4 objects and images.

Big Ideas	Children will communicate mathematically through multiple forms of expression. Children will persevere in solving questions with a growth mindset. Children will solve mathematical problems using a variety of strategies. Children will make sense of the world around them through mathematics. Children will connect math to other learning and real-world examples. A strong, interdependent math community has qualities, such as: • shared responsibility, collaboration and support for each other.
Guiding Questions	What does it mean to be a member of a math community? How do you use math tools? How do you most effectively communicate your mathematical thoughts and ideas? Why is collaboration and listening to the ideas of others important?
Vocabulary	tool: an item that you use to help you do something. Illustration: a picture or sketch
Materials and Preparation	 unit books such as: Big Al and Little Shrimpy, Abuela, or Full, Full, of Love samples of children's work from Week 1 Math Center writing and drawing tools counting book resources (e.g., Fish Eyes a Book You Can Count on) Math cards: Picture Book pages 1-4 copy of each number page per child, plus extras. Provide access to paper and drawing/writing tools for children to create picture book pages. Continue to have materials ready and available for past math activities.

Intro to Centers

In the past few weeks, you noticed math around you by looking at picture books, investigating your names, and being inspired by your favorite characters.

Share examples of children's work from the Math Center. Invite comments.

This week in the Math Center, we will create books to show groups that have the same number of things, based on the books we have been reading.

Display the book created with the numeral "1" and a 1 dot image.

What do you notice? What do you wonder?

Provide 30 seconds of quiet think time.

Turn and tell what you noticed or wondered.

Turn and Talk. Sample responses:

- There is 1 dot.
- There is a number.
- The rest of the page is blank.

Invite children to share what they noticed or wondered.

In math, we can communicate mathematical thoughts and ideas, just like we communicate our thoughts and ideas in reading and through writing. At the Math Center, there will be blank pages to create books. These picture books will be written and illustrated by you! Each page has a number and collection of dots to match. You will be invited to draw and create a collection to match the number on the page.

Hold up the Classroom Picture Book #1 Page.

We also have pencils, crayons, and colored pencils for you to write down your ideas to create your picture book page. I wonder how we can show the number 1 in our own picture book page.

Provide 30 seconds of quiet think time. Harvest several children's responses.

What other ideas do you have for creating a picture book page that shows what you know about the number 1?

Provide 30 seconds of quiet think time.

Turn and tell a partner your thinking and ideas.

As you work, think of how your picture book page can show the number 1 in many different ways. You can be inspired by the different characters and books we are reading. For example, you could have a book that has different characters from Big Al and Little Shrimpy, different buildings found in the book Abuela or family

members like in the book Full, Full, of Love. Using these books can be a fun resource to get your ideas flowing!

Describe the expectations for cleaning up and leaving the area when finished.

When you are finished creating your picture book page, put your supplies back where they belong so they are ready for the next person to use. If you don't finish your book make sure to put your name on it so that you can return another day. Organizing materials and cleaning up are important responsibilities in Kindergarten.

Show where the math tools belong when they are put away. If there is a routine for children to turn in their work, remind them of this routine.

During Centers

Children create a picture book where they identify and record many different groups of objects. Encourage children to use the math tools to match the number on the page to the collection that they draw.

Observe and then join the children, asking them to describe or show how they are creating their picture book pages. Follow the children's lead and use precise mathematical vocabulary to narrate what they are doing.

Encourage children to spend some time looking through some math counting books. Have them use these as resources to inspire their work.

Take observational notes about children's exploration and language.

Collect children's work to compile into a class, or individual children's, books.

Facilitation

- What groups of objects did you draw in your picture book?
- How did you decide what objects to draw? Why did you pick those objects?
- What is the same about all of the things you drew on your page?
- Can you describe what you drew on your page?
- How many did you draw? Can you count how many you drew?
- What do you notice your friend is doing for their picture page?
 Could that help you with yours? What groups of objects do you see on 's page?
- Now that you are finished, what can you do to get the materials ready for other children to use?

If children draw groups with more or fewer than the number on top of their page, consider asking:

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	 Can you tell me about this group of things that you drew? How many are there? What things do you see that are in a group of? If needed, identify some objects in the room and ask: Is there 1 in our room?
	Reflection: What routines or structures helped children work independently? If not, what routines or structures can you establish to ensure that you are able to circulate and talk to children as they work?
	Monitor for children who draw clear illustrations depicting 1 object. Scaffold as needed when adding pages for numbers 2-4 in following days.
	Upcoming daily extension opportunities: Week 2, Day 4 - Add picture book page for number "2", along with "1". Week 2, Day 5 - Add picture book page for number "3", along with "1-2". Week 3, Day 1 - Add picture book page for number "4", along with "1-3" Week 3, Day 2 - New Center introduced
Standards	Addressing: QR.C.2 Count to tell the number of objects. • K.CC.B.4; K.CC.B.4a; K.CC.B.4b
	Building Towards: QR.C.1 Know the number names and the count sequence. • K.CC.A.1
	QR.C.2 Count to tell the number of objects. • K.CC.B.4; K.CC.B.5 QR.C.3 Compare numbers.
	K.CC.C.6 Standards for Mathematical Practice: 1-8
Notes	