

Connecting Literature and Math – A Component of STEM Curriculum

#2 *Feast for 10* by Cathryn Falwell

Introduction

Join this affectionate African American family as they shop, cook and set the table for a feast for ten. Numbers are used to show how everyone in the family works together to create the family meal.

Teacher Notes about STEM

- *Early Childhood Educators are now linking together science, technology, engineering, and math into what is called STEM curriculum.*
- *CLAM focuses on Math, one of the components of a STEM curriculum.*
- *CLAM was developed to give preschool children foundations of mathematical understanding through concrete experiences; a foundation for life-long learning and school success in math.*

Arkansas Child Development and Early Learning Standards Birth through 60 Months

Domain of Development and Learning: Mathematical Thinking

Domain Component: MT1. Number Concepts and Operations

Learning Goal: MT1.1 Demonstrates number sense and an understanding of quantity (*number names and count sequence, connection of number, numeral and quantity*)

Learning Goals and Strands will be identified for all activities in the guide.

Materials to Collect and Make

- Make two-piece puzzles with numerals from one to ten and corresponding number of objects from the story. (See Attachment: [Numeral Cards](#) and Attachment: [Story Counting Cards](#))
- Collect a set of magnetic numerals, from 1 to 10

Story Presentation

Learning Goals:

LD1.1 Understands and responds to language (in child's home language) (*vocabulary and language comprehension*)

LD2.1 Uses increasingly complex vocabulary, grammar, and sentence structure (in child's home language) (*expressive language*)

EL1.1 Shows interest in literacy experiences

EL2.1 Notices and manipulates the sounds of language (*rhyme*)

EL3.1 Knowledge and use of books, print, and letters (*book knowledge*)

MT1.1 Demonstrates number sense and an understanding of quantity (*number names and count sequence, connection of number, numeral and quantity*)

Book: *Feast for 10* by Cathryn Falwell

First Reading of

- Be familiar with the book, *Feast for 10*.
- Show the cover, give title, author and illustrator. (Explain that the author is the person who writes the words and the illustrator is the person who draws the pictures. In this book, the same person wrote the words and drew the pictures)
- Involve children in discussing what a feast is. Guide them to understand that a feast is a large meal, sometimes for a lot of people.
- Invite children to look at the cover and predict what they think this family is doing. Accept all answers. Then say, "Let's read and find out if you are correct."
- Show the first two double spread pages and ask children where they think the family is. Ask children if they were correct in their predictions about what the story is about.
- Call attention to the little girl who is next to her mother. Ask the children what they think is written on the yellow sheet of paper she has in her hand. (Probably a grocery list)
- Read the story so all children can see the pages in the book.
- Place your finger beside each numeral as you read it to the children. For example, place your finger beside the 1 as you read "one cart into the grocery store."
- Continue reading until the story is complete.
- Pause at the end of the reading to allow children's honest reactions to the story.
- Follow up by inviting children to discuss their grocery shopping and food preparation experiences with their families.

Second Reading of *Feast for 10* by Cathryn Falwell

- Show the cover, give title, author and illustrator.
- Read the story so all children can see the pages in the book.
- Invite children to help you count the number of items on some of the pages after you have read the page. For example, after you have read "two pumpkins for pie" ask them to count the pumpkins as you point to them.
- Continue reading until the story is complete.
- Follow up by showing each page and inviting children to say the number and the item on the page. Put your finger under each numeral. Assist children as needed.
- Show pages, one at a time, with 1 through 4 items and invite children to tell you "how many shopping carts they see", "how many pumpkins", "how many chickens" and "how many children."

Teacher Note: *Do this last activity without pointing to and counting the items. This will help you know if children can recognize without counting how many in a group up to 4. In the Standards this is referred to as subitizing.*

Third Reading of *Feast for 10* by Cathryn Falwell

- Place either magnetic numerals or numeral cards (See Attachment: [Numeral Cards](#)) from one to ten in a container and take it to the story reading area.
- Pass the basket around the group and ask each child to take one item.
- Show the cover and ask children to recall the title of the book.
- Give the author and illustrator and ask children if they remember what each does. Give them prompts if necessary.
- Review with the children the numeral they are holding. Begin with 1 and ask, “Who has the number 1?” Continue with one through 10. Assist children as needed.
- Explain to children that they will help you read the story by holding up their number when it is read in the story. If you think the children need help in understanding what to do, practice with a couple of numbers to help them understand. For example, read “one cart into the grocery store” and ask the child with the 1 to hold it up, then put it down.
- Read the story so all children can see the pictures in the book.
- Follow up by thanking the children for helping you read the story.
- Ask the children to give you the numerals in order from 1 to 10. For example, say “If you have the number 1, please put it in the basket.” “If you have the number 2, please put it in the basket.”

Teacher Notes:

- If there are more than 10 children in your group, have duplicates of some of the numbers.
- All of the story readings are teacher guided activities.

Additional Language and Literacy Activities

Learning Goals:

LD1.1 Understands and responds to language (in child’s home language) (*vocabulary and language comprehension, follows directions*)

EL3.3 Knowledge and use of books, print and letters (*print knowledge*)

MT1.1 Demonstrates number sense and an understanding of quantity (*connection of number, numeral and quantity*)

Activity: Make a Grocery List

Materials: marker board and marker or chart sheets and marker

Directions:

- Explain to children that you would like their help in preparing a pretend feast for all of the children in the room.
- Invite them to help you count the number of people who will be enjoying the feast. When there is a total say, “We are going to have a feast for 12 (or however many in the group).”
- Involve them in discussing what they would like to have for their feast. Write the menu items on a piece of chart paper labeled **Feast for 12** (or how many in the group).
- Say to the children, “Before we can begin to prepare the food for the feast, we have to go to the grocery store. I need your help in making a grocery list.”
- Recall with the children the items on the menu.
- Label a sheet of paper as follows: **Grocery List**
- Invite them to decide what is needed from the grocery store in order to prepare the food for the feast.
- Ask children to decide on “how many” is needed of each item and include this on the list. For example, if they say “potatoes” ask them how many potatoes are needed and write their response: 15 potatoes.
- Continue this activity until the list is complete.
- Read the grocery list with the children, running your hand under each item as you read it.
- Post the menu and the grocery list in the home living/dramatic play area.
- Observe children as they play in the area. Do they “read” the items on the menu or the items on the grocery list? Do they pretend to cook any of the menu items? Do they set the table for the feast?

Teacher Note: *This is a teacher guided activity.*

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Activity: Going to the Grocery Store

Materials: magnetic numerals from 1 to 10 or numeral cards, Story Counting Cards - based on *Feast for Ten* (See Attachment: [Story Counting Cards](#) that are prepared with magnets on the back), storyboard or cookie sheet that is magnetic

Directions:

- Invite children to help you tell the story, *Feast for Ten*.
- Place the magnetic numeral or numeral card and the picture of the shopping cart on the board and involve children in saying, “One cart into the grocery store.”
- Continue this activity through ten.
- Follow up by inviting children to tell the story as you place the cards and pictures on the storyboard.
- Explain to children that the storyboard and cards will be in the library area and suggest that they tell the story to each other.

Teacher Notes:

- *This is a teacher guided activity..*
- *You may want to write the words from the story on the backs of the Story Counting Cards to help as you tell the story. For example, on the back of the picture of the shopping cart, write “one cart into the grocery store”.*

Learning Environment

Teacher Note: *As children are involved in the learning centers listed here, they are engaged in activities that support the following Domains of Child Development and Early Learning:*

- *Creativity and Aesthetics (visual arts and drama)*
- *Social Studies*
- *Emergent Literacy*
- *Mathematical Thinking*

Art Center

- Add skin-tone crayons or markers to the area
- Invite children to draw pictures of their families.
- Ask children if they want you to write anything about their families on their picture or on a card to attach to the picture, or if they want to write something.
- Write the information the child dictates to you. For example, “Aaron has 4 people in his family.” or “This is Briana’s family”

Dramatic Play Area

- Add the following items to the area:

<ul style="list-style-type: none"> ✓ Pad and pencil ✓ Grocery store ads ✓ Play money ✓ Cash register ✓ Placemats ✓ Small shopping cart 	<ul style="list-style-type: none"> ✓ Empty food boxes with prices on each one: for example, cereal, instant mashed potatoes, crackers, and cheese boxes (stuff the boxes with newspaper and secure with tape) ✓ Telephone and small phone directory ✓ Cookbook or recipe cards
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- Observe children to see how they play with the materials.

Library

- Place the storytelling cards, numerals and a magnetic board in the library area.
- Allow children to play with the materials independently.
- Observe to see if children use the cards and numerals to retell the story. Do they match the picture card with the correct numeral? Do they count items? Do they place the cards and/or numerals in sequential order from 1 to 10?

Manipulatives (or Math Center)

- Provide number puzzles
- Provide pegs and pegboards
- Provide nuts and bolts

Transition Activities

Match and Move

- Have matching sets of number cards from 1 to 10.
- Keep one set of the cards and distribute the others to the children.
- Show a card and say, "I'm looking for someone who has this number."
- Child with the matching card says the number and transitions to the next activity.

Teacher Note: *If you have more than 10 children in your group, make duplicates of some of the number cards and allow two children at a time to transition to the next activity.*

Family Connection

- Invite families to send an empty cardboard food box that represents a food item that the family really enjoys. If a family has a home language other than English, encourage them to bring a box with words in their home language. Add a price to the item, and then place it in home living/dramatic play area.
- Suggest that when families take their children grocery shopping they name the items they are purchasing and the price of the item. For example, "Tomatoes are \$1.50 a pound," Children can count the number of bananas or the number of potatoes they are purchasing.

Additional Books

Crews, Donald. *Ten Black Dots*.

Fox, Mem, illustrated by Helen Oxenbury. *Ten Little Fingers and Ten Little Toes*

Jenkins, Emily. *Five Creatures*.

Keats, Ezra Jack. *Over in the Meadow*

Assessment Ideas

Refer to page 4 of this guide: **Learning Environment – Library** for an activity to assess the following Learning Goal and Strands.

Learning Goal:

MT1.1 Demonstrates number sense and an understanding of quantity (*number names and count sequence, connection of number, numeral and quantity*)

To Assess:

- Add the storytelling cards, numerals and magnetic board to the library area.
- Assess children's competence by becoming involved with them in their activities, as they use the materials and by listening to their comments.