
	<b>Counting with Clay</b> Laurel McClurken Albemarle County Public Schools	
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**Topic:** numeracy, numeral sequence, and counting, 1:1 correspondence.

**Overview**

This lesson will support the students understanding of numerals to 10, how they are formed, what they represent, and how they are related. After reading a counting book together, the students will create a class digital counting story using clay numerals and sets.

**Grades** PreK-K

**Time Allotment**

Four to six 30-minute periods

**Learning Objectives**

On completion of these lessons students will be able to

- identify numerals
- form 3-D numerals
- create a set which corresponds to a numeral
- sequence the numerals and sets

This lesson addresses Va. SOL Math K.2, K.5

**Media Components**

- Document camera
- Digital camera
- Teacher computer
- Photo organization program
- Multimedia projector
- Color printer
- Books:
  - Ehlert, Lois (1990). *Fish Eyes: A Book You Can Count On*. San Diego. Harcourt Brace & Company
  - Chase, Edith Newlen (1984). *New Baby Calf*. New York; Toronto. Scholastic Book Services

**Materials and Student Handouts**

- Chart paper or dry erase board
- Index cards and marker
- Counters
- Set of numbers 1-10
- Container to pick numbers from
- Clay and tools
- Work surface such as a tray
- Background paper
- Photo paper and book binding materials
- Number line for reference

### Teacher Preparations

- Copy and cut apart a set of numerals to 10
- Prepare document camera
- Ensure digital camera is charged and has plenty of memory

### Introductory Activity

**1. Focus:** (Show only the cover of the book “Fish Eyes” on the document camera) Ask, What do you think this book might be about? After a response ask, Why do you think that? Encourage responses from several children. (Expect someone to say “fish”.) Then read the complete title and ask if there are any other ideas. (counting book)

**Activity:** Let’s see what you think when we get to the end. Begin to read the book. As you read each page with a number of fish on it, ask the children to predict how many fish will be on the next page.

**Follow-up:** After completing the book, check students’ predictions.

**2. Focus:** What are illustrations? (pictures or objects) What do you think Lois Ehlert used to make the illustrations for her counting book? (paper shapes) “You’re going to help make a counting book too, but you’re going to use clay to make your illustrations. Other illustrators have used clay to make pictures for books.” (Place “New Baby Calf” on the document camera.) As I read this story notice how clay is used to make the pictures.

**Activity:** Read the story, pausing to comment on the illustrations and how they connect with the text.

**Follow-up:** What did you notice about these illustrations. How were they different from other books we have read? Give time for a variety of responses.

### Learning Activities

**1. Focus:** Now we have to decide what our counting book will be about.

**Activity:** Since we are going to make a class book, we’ll need an idea for what our book will about. What ideas do you have? Write ideas suggested on chart paper. After the ideas are listed, talk about each one and its feasibility (size, detail, possible with clay?). By consensus, eliminate those that are not feasible for this project. Write the names of the remaining ideas (with a stick figure illustration if possible) on index cards (one idea/card.) Arrange the cards horizontally on the floor. Give each child a counter. Say, “Put your counter beside the topic you want to choose.” (Read the words whenever needed.) After everyone has voted, tally the votes. Which one has the most? What will our book be about?

**Follow-up:** We have voted to make a book about \_\_\_\_\_.

**2. Focus:** Say, “Each person in our group will illustrate one number. I am placing numerals from 1-10 (show the numerals) in this container. Without peeking, one person at a time will take out a numeral. That will be the numeral you will make with clay and illustrate.”

**Activity:** Put the numerals in the container. One at a time the children choose a numeral. What number did you choose? (For future reference, make sure you write down which child has which numeral.) When all are drawn, guide the children to stand in numerical order based on the numeral they are holding.

**Follow-up:** Review with each child the numeral they have.

**3. Focus:** Today we will make the clay numerals and objects for our book.

When I call your name, come to the art table to make your numeral and set of objects to illustrate your page.

**Activity:** Call two children at a time to the art table where there are clay and clay tools, trays to work on, a number line and background paper. What numeral did you choose from the container? Make that numeral with clay, as well as that many \_\_\_\_\_. (objects determined by the theme of the book). When a given set and numeral is finished, place on the background paper and take a picture with the digital camera. Repeat until all the numerals (0-10 are represented.)

**Follow-up:** Line up the clay illustrations in sequence from lowest to highest and allow children to tell about their clay creations. How do we know which one goes next in our sequence? (Each one has one more object than the one before.)

### Culminating Activities

**Focus:** Today we are going look at a slide show of our class counting book. Look for the illustration you did. Each page should have text on it as well – 0 \_\_\_\_, 1 \_\_\_\_, 2 \_\_\_\_ and so on.

**Activity:** Using the computer and projector, show through one time the “counting slide show” you organized using the pictures taken of the clay models’ made by the students. Then show it again and have the children ‘read/count’ each page. If the children are interested, watch it again.

**Follow-up:** Raise your hand if you saw your page.

**2. Focus:** I want to show you a very special book today. When I finish tell me who you think the authors and illustrators are. (the members of the group)

**Activity:** Read the class book you made from the pictures of the children’s clay work.



**Followup:** Who wrote this book? (the group). How is this book like “Fish Eyes? (counting book) How is it like “New Baby Calf?” (clay pictures)

### Assessment

Teacher observation of student work, both individually and as part of the group.

### Community Connections

- Show the slide show to parents as part of a parent meeting.
- Allow the children to take turns taking home the book the class made.
- Place a copy of the book in the library.

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**About the Author**

Laurel McClurken is an Early Childhood Educator at Woodbrook Elementary in Albemarle County, Virginia.

This lesson was developed as part of the Spring 2007 WVPT NTTI for the Virginia Enhancing Education through Technology Ed Tech Grant awarded to the Shenandoah Valley Technology Consortium.