

Ayers Institute Viewing Guide

Math Opportunities in a Pre-K Classroom

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Focus Standards: Tennessee Early Learning Developmental Standards (TN-ELDS)

1. **PK.CC.A.4** Begin to name numerals 0-10.
2. **PK.CC.B.4** Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a. When counting objects, say the number names in the standard order, using one-to-one correspondence.
 - b. Understand that the last number name said tells the number of objects counted.
 - c. Recognize that one more object added to a group of objects changes the quantity as a whole.
3. **PK.CC.B.5** Understand that a number represents a corresponding quantity.
 - a. Subitize quantities up to 5 (i.e., the ability to look at a quantity and say the quantity [1-5] quickly, just by looking).
 - b. Given a number from 1-10, count out that many objects.
 - c. With guidance and support, count to answer “how many?” questions about as many as 10 things arranged in a line, a rectangular array, or a circle.
 - d. With guidance and support, count to answer “how many?” questions about as many as 5 things in a scattered configuration.

Discussion Points:

Learning Environment

- Ms. Donald says that math can be taught in informal ways. What are some of the informal ways she uses to teach math concepts in the video?
- What materials or routines does Ms. Donald use to support students' ability to lead their own learning?
- How does Ms. Donald define her role during choice time? How does this benefit students?
- Ms. Donald wanted to make learning math fun for her students. How did she do this? Do you agree that it is important to make learning fun? Why or why not?
- What are some ways that you could increase student engagement during math learning?
- How does Ms. Donald use transition time to support student learning? What other kinds of math activities can you include in transitions?

Instructional Strategies

- Ms. Donald spoke about following her students' interests and finding opportunities to incorporate math related to those interests. What were some examples of her doing this in the video? What effect did this have on student learning? When have you followed student interests in the past?
- Ms. Donald asked her students a lot of questions and gave hints so that students could come to the answer on their own. What were some examples of times she did this? What materials or resources did she use to give "hints?"
- What materials do you currently use or could you add to your classroom that would make it easier to give students "hints" instead of just giving them the answer?
- Ms. Donald used many different ways to talk about and show numbers. How do you talk and show numbers in your classroom? Which strategies from the video do you think you could use in your classroom?
- How does Ms. Donald use music in her classroom to promote student learning and engagement?
- In what ways do games support student learning and autonomy in the classroom?

Planning

- In the video, Ms. Donald discusses her planning process. How does her planning process benefit students? How is your planning process similar or different? How does your planning process benefit students?
- Ms. Donald mentions the importance of reflections. What are some specific questions for math reflections? What supports might students need when asking them to reflect?

Assessment

- How does Ms. Donald use informal assessment in her classroom?

- What was the teacher observing during their choice time? What is the purpose of observation while the kids are playing? How can teachers use observation to support students?

Analysis of Student Learning:

- What did you notice about the pre-K students' math skills?
- Examine math learning samples from your classroom. What do you notice? What instructional strategies can you use to grow your students' math ability?

Activities for teachers after viewing the video:

- How can you increase student engagement with math opportunities in your classroom?
- What long term goals do you have regarding math instruction in your classroom?