



Investigations

in Number, Data, and Space®

Unit Guide for Kindergarten, Unit 1:
Who Is In School Today?
Classroom Routines and Materials



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Who Is In School Today?

Classroom Routines and Materials

Unit Summary:

The processes, structures, and materials that are important features of the Kindergarten math curriculum are introduced in this unit. It also introduces routines common to many Kindergarten classrooms that students will encounter regularly throughout the year. These routines include taking attendance, using the calendar to count and to keep track of time and events, counting sets of objects, and collecting and discussing data about the class. These Classroom Routines offer reinforcement of number concepts that are central to the Kindergarten curriculum. Full write-ups of all Classroom Routines can be found in *Implementing Investigations in Kindergarten* pp. 22-31.

Materials:

Who Is In School Today? (1 copy per person)
Implementing Investigations in Kindergarten (optional)
Geoblocks (one bin per 4 people)
Pattern blocks (one bin per 4 people)
Cubes (one bin per 4 people)
Attribute Blocks (one set per 4 people)
Counting Jar (1 per 4 people; see Materials to Prepare, p. 55)
Scrap paper (1 per person)
Buttons (1 handful per pair)

Do the following activities from *Who is In School Today?*:

1. Identify the mathematics in the unit

To get an overview of the mathematics students will be doing in this unit, refer to these sections in the unit front matter. As you look at these sections, begin thinking about the main mathematical ideas students work on in this unit.

- Turn to pp. 8-9, *Overview of This Unit*. Look at the title of each Investigation and read the summary for each Investigation.
- Review the *Mathematics in This Unit* essay, pp. 10-13. Look at the Mathematical Emphases and Math Focus Points. (The emphases are numbered, and can be found above bulleted lists of Math Focus Points.)
- Read *Assessing the Benchmarks*, p. 15.

Discuss

- What mathematical ideas and skills are students working on in this unit?
- What mathematics are students expected to know at the beginning of the unit? At the end?

2. Exploring Materials (Session 1.1)

Throughout this unit students explore the math materials they will be using throughout the year.

- Read the Activity, *Introducing Math Workshop and Materials* pp. 26-27. Choose one material to explore: Geoblocks, pattern blocks, cubes or attribute blocks. Attribute blocks can be divided into 2 sets, thick and thin, 2 people per set. Consider the following questions as you explore the material you chose and then discuss these questions after everyone has time to explore one or two materials.

Discuss

- What attributes of the material do you notice?
- What relationships do you notice among the objects?
- What do you think students might do with this material?
- What might they notice or learn from exploring this material?

- Look at the Teaching Notes p. 27, “Why Free Exploration?” and “Managing Math Workshop”. Read the Teacher Note, *Supporting Students’ Free Play*, pp. 132-133. (For more ideas about setting up a mathematical community and classroom see the *Setting Up the Investigations Classroom* essay, in *Implementing Investigations in Kindergarten*, pp. 9-14.)

Discuss

- How can you best support student learning as they explore materials?
- How can students’ exploration of these materials help them in their math work later in the year?
- What can you do to help students become familiar with expectations for how they should work during math time?

3. Attendance (Sessions 1.1, 1.2, 1.6, 2.2, and 2.5)

Three Classroom Routines are introduced in this unit, however, only one of them, *Attendance*, is explored in this unit guide. In the *Attendance* routine students establish the number of students present each day by counting the students and using information about who is not present that day. Different parts of the *Attendance* routine are introduced in different sessions in this unit. As for all Classroom Routines, this activity is then continued throughout the year.

- Read the Activity, *Introducing Attendance*, pp. 25-26 in Session 1.1. Take attendance with your group as described in this activity. Read the Activity, *Counting Around the Circle*, p. 33 in Session 1.2 and count around the circle as described in the activity. Read the Activity, *Introducing the Attendance Stick*, pp. 48-49 of Session 1.6 and make an attendance stick for your group as described in this activity.

- Read the Activities, *Using the Attendance Stick*, pp. 65-66 in Session 2.2 and *Attendance: Introducing a Labeled Attendance Stick*, pp. 83-86 in Session 2.5.

Discuss

- How do all the components of this routine work together?
- How will you make this part of your daily routine in your classroom?

- Read the Teaching Notes, p. 25 “The Attendance Routine”, “How Many Are We?” and the Math Note, p. 25 “Learning to Count”; the Teaching Note, “Counting Off”, p. 33, and the Teaching Note, “Attendance Over Time”, p. 85.

Discuss

- What aspects of counting are students working on in this routine?
- What other math ideas are they working on?

4. Counting Jar (Sessions 2.1 and 3.2)

The Counting Jar is an activity that is introduced in this unit and continued throughout the year. The amount of objects, type of objects and composition of the set of objects placed in the jar is varied throughout the year.

- Read the Activity, *Introducing the Counting Jar*, pp. 59-60 in Session 2.1 and the Activity, *Counting Jar: Introducing Recording*, pp. 101-102 in Session 3.2. Do all the components of the Counting Jar activity in pairs or individually (depending on how many Counting Jars you have). (You might also combine this activity with the activity that follows, *Button Match-Up*, so that logistically it is easier for everyone to have a chance to do the Counting Jar. Alternatively, you can have just 3 or 4 people do the Counting Jar as an example for everyone else, then continue with the discussion.)
- Read the Teaching Notes, “Counting Jar”, “The Math of the Counting Jar”, “Handling Mistakes”, p. 59, and “Creating an Equivalent Set”, p. 60.
- Read the Dialogue Box, *You Could Use Dots*, pp. 142-143.

Discuss

- How would you expect students will show on paper how many items are in the Counting Jar?
- What is the teacher trying to highlight about recording the number of balls in the Counting Jar in this Dialogue Box?
- How can each of the components of this activity - counting the objects in the jar, creating an equivalent set of the number of objects in the jar and recording the amount in the jar - help students develop an understanding of counting and help them develop their counting skills?

- Look together at the Resource Master M5, *Assessment Checklist: Counting*, pictured in the sidebar, p. 60 and the example of a filled in *Assessment Checklist: Counting*, p. 61.

Discuss

- What might you observe and record on this checklist the first time students do the Counting Jar?
- What would you expect to observe by the end of this unit? What would you expect to observe later in the year, after students have done the Counting Jar multiple times as well as other counting activities?

5. Button Match-Up (Session 2.3)

In this activity, *Button Match-Up*, along with *Attribute Block Match-Up*, *Sorting People* and *Sorting Attribute Blocks*, students begin some work on sorting objects by their attributes. This work is continued in the pattern and data units.

- Read the Activity, *Introducing Button Match-Up*, pp. 71-72. Play *Button Match-Up* in pairs or fours.
- Read the Teacher Note, *Sorting and Identifying Attributes*, p. 136.

Discuss

- How can work with sorting and identifying attributes be useful to students in their mathematical learning?
- What challenges do you foresee Kindergarten students having in identifying attributes and sorting by attributes?

6. Wrap Up

- Look back at the unit overview, pp. 8-9.

Discuss

- How do the activities done during this unit study fit into the rest of the mathematics of the unit?

Other Key Features of *Who is Here Today?*

- Classroom Routines in This Unit, p. 16
 - Attendance*
 - Calendar*
 - Today's Question*
- Assessment
 - Counting (Introduced in Session 2.1)
 - Resource Master M5, Assessment Checklist
 - Teacher Note, *Observing Kindergarteners as They Count*, p. 135