## Buses and Apartment Buildings - Ordinal Numbers

| Strand: | Number and Number Sense <br> Identifying ordinal positions first through tenth, using ordered sets of 10 <br> concrete objects |
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| Topic: | 1.3 The student, given an ordered set of ten objects and/or pictures, will <br> indicate the ordinal position of each object, first through tenth. |
| Primary SOL: | $1.2 b, 1.2 c, 1.9$ |
| Related SOL: <br> Materials |  |

- Tickets for the bus (attached)
- Small sticky notes
- Drawing of an apartment building with 10 floors (labeled; attached)
- Drawing of an apartment building with 10 floors (unlabeled; attached)


## Vocabulary

first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth, bottom, last, left, order, ordinal, position, right, top

## Student/Teacher Actions: What should students be doing? What should teachers be doing?

1. With the class's attention, ask a student to get a book from the bookshelf. Tell the student, "The book is on the second shelf from the top." Have the student place their hand on that shelf and say, "It is the fourth book from the left." When the student hands you the book, ask, "How did you know that was the book I wanted?" Act surprised, because you did not tell them the title. Ask the students, "How did he/she know which shelf to look on (second from the top) and how did he/she know what book to grab (fourth one from the left)?"
2. Explain to students that, "Because I gave the ordinal position, using words like 'second' and 'fourth,' the student was able to find the one I wanted. Who thinks they know other ordinal position words?" Have students think about the terms they use to explain who won a race. Connect the No. 1 position to first, the No. 2 position to second, and the No. 3 position to third.
3. Ask 10 students to form a line at the front of the room, and have them to suggest the ordinal words for each person in line. Go over the ordinal positions words first through tenth together. Help students connect the cardinal numbers to the ordinal numbers, especially noticing the similarities between four and fourth, five and fifth, six and sixth, seven and seventh, eight and eighth, nine and ninth, and ten and tenth. Point to the first student in line and say the ordinal number words in order several times to allow students to practice these terms.
4. Have the students in the line turn to face the opposite direction, so that the last person is now first. Repeat the activity, asking students to again tell you the ordinal
positions for each person. Ask students to describe why (name of student), who was third in line at first, is now seventh in line. Help students to understand that we must always figure out where the first place is before we can figure out the other positions.
5. Set up 10 rows of two chairs arranged like the seats on a school bus. If there are more than 20 students, put a third chair in some rows. Put the seats so there are 10 on one side and 10 on the other with an aisle in the middle, just like a bus. Explain to students, "You are at the bus station, and in order to get on the bus, you have to get a ticket from me." Randomly select students to get a ticket on the bus. Read the ticket aloud and have students enter the bus, and help make sure they get to the right seat. If necessary, hang up signs that read "left side" and "right side" at the front of the bus. (Make sure to use the students' left and right.) Once all students are seated, ask questions, such as: "Who is sitting in the ninth seat on the left? Who is sitting in the second seat on the right? What seat is (student's name) sitting in? What position is behind/in front of (student's name)?"
6. In a group, discuss the types of buildings seen in the city. Show the picture of a tall apartment building with seven floors. Discuss which floor would be the first floor and how each row of windows is a new floor. Count the floors using ordinal numbers.
7. Distribute sticky notes, and ask students to write their name on the sticky note. Distribute copies of a drawing of an apartment building with 10 floors. (See attached - if possible copy in color or alternately let students color the floors. This will allow you to easily tell whether students are identifying the correct floor.) Tell students they will follow directions to visit certain floors. Give students oral directions to visit the first floor, then the second floor, and then the third floor, etc., and direct students to place their notes on the correct floors. Have students put their sticky notes at the bottom and give clues for students to move throughout the apartment building. Some examples are: Go to the seventh floor. Now go to the third floor. Now go up two floors; which floor are you on now? Go down one floor. Now where are you? etc. Students will place their sticky note on the appropriate floor, following the directions given by the teacher. Teacher should walk around, observing students work.
8. After students become familiar with the activity, replace the labeled apartment building with the unlabeled apartment building and repeat step 5, allowing students to count to find the correct floor.
9. When you have finished the activity, follow up with a class discussion using some of the following questions. "Why do we use ordinal numbers like first, second, and third?" "If you need to find the fourth object in a line of objects, what do you need to do?" "How many items will you count to find the ninth item?" "What ordinal number word comes before fourth, after fourth?"

## Assessment

- Questions
- (Have students make a train with 10 cubes.) "What color is the sixth cube? What is the position of the green cube?"
- What is the difference between five and fifth?
- How do you find the seventh person in a line?
- How do you know where to start counting when people are in a line?


## - Journal/writing prompts

- Janae was standing in line. There were five people in front of her. What ordinal number describes Janae's position? Draw a picture to support your thinking.
- Peter was the fifth person in line at lunch. Justin was in line before him. What might Justin's position be in line? How do you know?
- Other Assessments
- Give each student 10 index cards or sticky notes to place in a line, and a set of different colored cubes. Ask students to put a red cube on the third card, a green cube on the sixth card, and so forth. Change the orientation of the line (top to bottom, bottom to top, left to right, right to left) and repeat. As you circulate among the students, clarifying, assisting, and conversing, make notes about how well students follow directions and demonstrate problem solving, as well as how accurately they place their cubes. Check for evidence of understanding.


## Extensions and Connections

- Have students put the months of the year in order. Ask students to name the eighth month, the sixth month, etc.
- Make a train from shoe boxes by painting one as the engine and one as the caboose. Create other cars to go between the engine and caboose (e.g., box car, coal car, passenger car). Emphasize that the engine is always first and the caboose is always last. Have students arrange and describe the train in different formations. Using positional words, have student generate questions to ask their peers about the train cars.
- Use a drawing of a set of stairs to address top to bottom and bottom to top. If you are at the top ready to go down the stairs, the first step will be at the top. If you are at the bottom ready to go up the stairs, the first step will be at the bottom. Students can move a counter up and down the stairs.
- Change the orientation of the index card and cube assessments so that students can practice counting ordinal numbers from left to right, right to left, top to bottom, and bottom to top.
- As students sequence events in a story, draw attention to the ordinal number words.
- As you do calendar activities, draw attention to the ordinal number words used. Examples include: dates - January 3rd, the third Friday of the month, the second day of the week, etc.


## Strategies for Differentiation

- Use labeled connecting cubes to help students identify ordinal positions. The cubes can be rotated (top to bottom, bottom to top, left to right, right to left) to change the orientation of the line.
- When locating books on the book shelf, give single-step directions instead of multistep directions.
- Use a single-row bus instead of a double-row bus during the school bus activity.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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## Bus Tickets

| ADMIT ONE <br> First (1st) Seat on the Left | ADMIT ONE <br> First (1st) Seat on the Right |
| :---: | :---: |
| ADMIT ONE <br> Second (2nd) Seat on the Left | ADMIT ONE Second (2nd) Seat on the Right |
| ADMIT ONE <br> Third (3rd) Seat on the Left | ADMIT ONE <br> Third (3rd) Seat on the Right |
| ADMIT ONE <br> Fourth (4th) Seat on the Left | ADMIT <br> ONE <br> Fourth (4th) Seat on the Right |


| ADMIT ONE <br> Fifth (5th) Seat on the Left | ADMIT <br> ONE <br> Fifth (5th) Seat on the Right |
| :---: | :---: |
| ADMIT ONE <br> Sixth (6th) Seat on the Left | ADMIT ONE <br> Sixth (6th) Seat on the Right |
| ADMIT ONE <br> Seventh (7th) Seat on the Left | ADMIT <br> ONE <br> Seventh (7th) Seat on the Right |
| ADMIT ONE <br> Eighth (8th)Seat on the Left | ADMIT ONE <br> Eighth (8th)Seat on the Right |

$\left.\left.\begin{array}{|c|c|}\hline \text { ADMIT } \\ \text { ONE } \\ \text { Ninth (9th) Seat } \\ \text { on the Left }\end{array}\right\} \begin{array}{c}\text { ADMIT } \\ \text { ONE } \\ \text { on the Right }\end{array}\right\}$


## Apartment Building



## 10th Floor

9th Floor

8th Floor

7th Floor

6th Floor

## 5th Floor

## 4th Floor

## 3rd Floor

## 2nd Floor

## 1st Floor

## Apartment Building (Unlabeled)



