

MATH LANGUAGE, OFFLINE ACTIVITY 1

Lesson Plan: Mathematical Language, Intro to the Bus, Activity 1

OVERVIEW OF THE ACTIVITY

Students act out a being a “driver” with “passengers” getting off and on at each stop. Students are asked: “How many passengers remain on the bus at the last stop?”

DESCRIPTION OF THE ACTIVITY

One student acts as bus driver and four other students act as bus stop monitors. Other students act as passengers, and remaining students observe the “bus” travelling along its route. The bus driver determines how many/which passengers get off the bus at any stop, and the bus stop monitor determines how many passengers get on the bus. Just before the bus pulls up to the last stop, all other students must raise a card with a numeral to indicate how many passengers are on the bus.

PRINCIPAL LEARNING GOAL(S)

- Train the students concerning how this game is played;
- Teach those students not used to riding on a bus how using a bus works;
- Teach students that the correct answer is based on real evidence, and is not the property of the teacher.

PREREQUISITE KNOWLEDGE AND SKILLS

- This activity assumes that students have already completed the first idea in the Theme of Number Concept (Count).

RESOURCES FOR THE LESSON

- A sheet to record student roles assigned in bus games (see appendices);
- Sets of index cards with numerals between 0 and 9 for each child (see appendices).

POTENTIAL DIFFICULTIES

- May flow from missing pre-requisite skills, particularly if a student is seen to make multiple mistakes (miscounting remaining passengers), and such skills can be reviewed by repeating Theme 01 activities, in particular Idea 01, Count.

MAIN ACTIVITY ~ 20 MINUTES

The very first time in this activity the teacher demonstrates how to play the game by taking on the role of bus driver as well as all of the bus stop monitors. Thus, when the bus pulls up at a stop, acting as bus driver, the teacher will announce how many passengers will get off, open the box and remove that number of passengers. Then, changing position, the teacher will act as bus stop monitor, announce how many passengers will get on, add that number of objects to the bus and close the lid of the box. When the bus arrives at the last stop, the driver asks students how many passengers are on the bus (the box is still closed) and to hold up a number card with their answers. If the teacher is confident that the class has understood the game, then the teacher selects five (5) students, one to act as bus driver, who decides how many and which passengers get off at each stop (0 to 3), and four bus stop monitors, who decide how many and

which passengers get on the bus (0 to 3) at the stop that he/she patrols. If the teacher is not confident that the class has understood, she should repeat the game still acting as bus driver and bus stop monitors. Each bus driver/bus stop monitor student team could repeat the bus route a few times before a new student team takes over. Note that when a student team is running the bus, the teacher monitors carefully to see that the students play out their roles correctly.

This activity is carried out in a number of steps that are listed below:

- The very first time the teacher should explain that she will drive a bus from stop to stop, where she will announce which passengers will get off, then announce which passengers will get on. When the bus arrives at the final stop she will ask the students to hold up a card indicating how many passengers they have counted as still being on the bus. The teacher should tell the students that for the moment the maximum number of passengers that get on or get off at any stop will be three (3). The teacher will then carry out this phase of the activity until she feels that the students have grasped the idea of the activity. Note that the very first time, because of explaining the game, the teacher should allocate more extra time so as to make sure that the students understand how the game is played.
- The teacher selects the bus driver, who will "drive" the bus around the route and announce which passengers are getting off the bus. The teacher also selects four bus stop monitors, one for each stop. Each bus stop monitor is responsible for announcing which passengers will get on the bus. When the bus arrives at the final stop the bus driver will ask all students (except the current bus stop monitors and the current passengers on board the bus) to select the numeral card that they think represents how many passengers are still on the bus, and then ask them all to display their choice at the same time.
- The purpose of this activity is to learn how this game is played. This means that repetition is necessary, but the teacher should avoid too many repetitions at any one instance of playing the game for fear that it can become boring for some students. You may use the form in the appendix to record who plays bus driver and who plays bus stop monitors so that eventually all students have the opportunity to play these roles.

ACTIVITIES IN OTHER SUBJECTS

When teaching other subjects the teacher can engage students in activities that will help with this bus activity:

- in art class the students can decorate the box that will eventually be used as a bus so that it actually looks like a bus, and create different signs for each of the various bus stops;
- in social science class the teacher can lead a discussion concerning appropriate behaviour when using public transportation (waiting in line, waiting for passengers to get off before attempting to get on, providing seats for elderly or passengers with a disability, etc.).



APPENDIX 1

Last Name	First Name	Bus Driver	Bus Stop Monitor	Observer



APPENDIX 2

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