

## Grade 1 Lesson Summary

### Overall Objectives

This lesson will help students to:

- Count by 5's (lesson can be modified to provide opportunities for skip counting by other numbers);
- Recognize and describe skip counting patterns;
- Represent skip counting concretely (interlocking cubes), graphically (hundreds chart), and symbolically (numerals)
- Use skip counting to solve problems.

### Learning Expectations

Students will:

- Understand numerals, ordinals, and the corresponding words, and demonstrate the ability to print them; 1m2
- Solve simple problems involving counting, joining, and taking one group away from another (e.g., how many buttons are on the table?), and describe and explain the strategies used; 1m8
- Estimate quantity in everyday life (e.g., guess, then count, how many beans are in the jar); 1m9
- Read and print numerals from 0 to 100; 1m11
- Count by 1's, 2's, 5's, and 10's to 100 using a variety of ways (e.g., counting board, abacus, rote); 1m15
- Pose and solve simple number problems orally (e.g., how many students wore boots today?); 1m34
- Use concrete materials to help in solving simple number problems; 1m35
- Describe their thinking as they solve problems; 1m36
- Identify counting patterns in hundreds charts: 1m87

The code that follows each learning expectation comes from the Ontario Curriculum Unit Planner. See [www.ocup.org](http://www.ocup.org) for further details.

### Materials

- Interlocking cubes connected in sets of 5 (in various configurations). Prior to the activity, ask students to snap the cubes together to reinforce the idea that there are 5 cubes in each set.
- Classroom hundreds chart or carpet
- Hundreds chart for each pair of students
- Blank sheet of paper (approximately 12 cm x 22 cm) for modelling the activity
- Blank sheet of paper (approximately 20 cm x 22 cm) for each pair of students
- Cubes on a Paper Recording Sheet
- Interlocking cubes connected in rows of 5
- 3 blank sheets of paper (representing trays) for each pair of students – sheets of paper are approximately 12 cm x 22 cm, 16 cm x 22 cm, and 20 cm x 22 cm
- Chocolates on Trays Recording Sheet for each pair of students
- Home Connections – Kernel Count! (one per student)

## Approach

### *Get Started*

In a guided learning session:

- Show students a container holding sets of interlocking cubes that have been connected in different configurations in groups of 5. Discuss how each set has 5 cubes.
- Ask the students to estimate the number of cubes in the container.
- Ask the students count by 5's to determine the number of cubes in the container, ask another student to place a counter on a hundreds chart to mark each number that is said.
- Ask the students the following questions:
  - Who had a good estimate of the number of cubes in the container?
  - How did the hundreds chart help us count?
  - How could you use the hundreds chart to help you if you didn't know how to count by 5's?
  - What patterns do you see on the hundreds chart?

### *Work on It – Model the Activity*

In a guided learning session, demonstrate the activity that students will do with a partner:

- Choose two students from the class.  
Have the students try to place as many sets of 5 cubes as possible on a sheet of paper (approximately 12 cm x 22 cm).
- As each set of 5 cubes is placed on the paper, have the students place a counter on the hundreds chart to indicate the number of cubes on the sheet of paper.
- When the students can place no more cubes on the paper, have them record the number of cubes on a copy of the Cubes on a Paper Recording Sheet.
- The students repeat the activity several times, trying to place more cubes on the sheet of paper than they had managed on previous attempts.
- Now have the whole class do the activity. Provide each pair of students with a piece of paper measuring approximately 20 cm x 22 cm.

### *Work on It – Observe and Assist Students*

In a shared learning session:

- Observe how well students are able to keep track of the number of cubes on a hundreds chart, and how well they are able to count by 5's.
- Probe students' thinking by asking questions similar to the following:
  - Do you have a strategy for placing a lot of cubes on your paper? What is your strategy?
  - How many cubes were you able to place on your sheet of paper?
  - How are you using the hundreds chart to count the number of cubes on your paper?

*Reflect and Connect – Reflect on the Activity*

In a guided learning session:

- Help students reflect on the activity and on their learning by asking questions such as:
  - Were you able to get better at placing a lot of cubes on your sheet of paper?
  - What strategy did you use in order to place a lot of cubes on your paper?
  - How did the hundreds chart help you count the number of cubes on your paper?
  - What patterns did you see on the hundreds chart?
  - How did this activity help you get better at counting?
  - How did this activity help you get better at showing numbers in different ways?
  - How could you do this activity in a different way?

*Reflect and Connect – Solve a Related Problem*

Introduce the following activity in a guided learning session. Students may complete the activity with a partner, as a shared experience, or independently.

- Pose a problem to the students:
 

At a candy store, chocolates are sold in little boxes that are this big. (Show a row of 5 cubes that have been connected.) Each box contains 5 chocolates. The person who works at the candy store wants to see how many chocolates she can place on 3 different trays – a small tray, a medium-sized tray, and a large tray. (Show sheets of paper in 3 different sizes – approximately 12 cm x 22 cm, 16 cm x 22 cm, and 20 cm x 22 cm – to represent the 3 trays.)
- Explain that each student will work with a partner to find the number of chocolates that will fit on each of the 3 trays. Show how students should complete the Chocolates on Trays Recording Sheet to tell the number of chocolates that will fit on each tray.
- As students work on the problem, ask them questions such as:
  - How are you solving the problem?
  - Is there a different way to place the boxes on the tray?
  - Can you get more boxes on the tray if you place them in a different way?
  - How does counting by 5 help you find the number of chocolates on the tray?

## Assessment

Observe how well students:

- Count by 5's;
- Represent skip counting on a hundreds chart;
- Describe patterns on the hundreds chart; Describe connections between the cubes on the blank sheet of paper, the representation on the hundreds chart, and the numbers they record on their worksheet.

## Extensions/Adaptations

Provide opportunities to skip count by other numbers, by having students place cubes attached in 2's and 10's on the blank sheet of paper.

## Home Connections

Send home copies of Home Connections – Kernel Count! Encourage students to do the activity with someone at home.