

# COUNT, STEP 1

## Lesson Plan: Number Concept, Count, Step 1

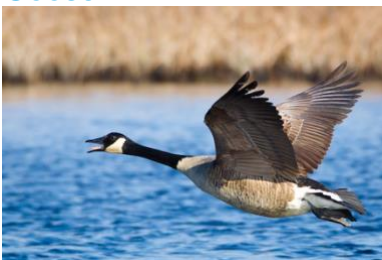
### Activity Screen Shot



### Theme Host: Chuck



### Animal Friend: Canada Goose



### OVERVIEW

This activity focuses on the importance of counting each object in a set just once.

### PRINCIPAL LEARNING GOAL(S)

- Reinforce the concept of number as a count of objects in a set
- Maintain a mental image of a set of objects while developing strategies for counting
- Learn the use of a “Counter” as a tool for keeping track of counting

### PREREQUISITE KNOWLEDGE AND SKILLS

- Practiced the act of counting physical objects

### POTENTIAL DIFFICULTIES

- Some students may be so focused on clicking that they do not notice the changes in the counter. Remind them to look at the counter while they work.

### WARM UP ~ 3-5 MINUTES

Before starting the activity you may say a number to the class and then count aloud to that number while simultaneously clapping. Encourage student to join in clapping and counting aloud.

### MAIN ACTIVITY ~ 20 MINUTES

Students are asked to count by clicking on each of the birds, while being introduced to the notion of a counter (the “counting frame”). When a student clicks on a bird, an outline appears around the bird. If the student clicks on the same bird a second time, the outline disappears. You may need to assist some students occasionally.

**CONSOLIDATION ~15 MINUTES**

To help students consolidate their new knowledge and make connections to prior learning, allow time for subsequent discussion. The questions below raise important issues:

- 1) *How do you know that you are done?*  
Likely one child will say when I could see that I had clicked on all the ducks because... Reinforce with “right, every duck must be counted.” Follow up with “Did anyone click on the same duck twice?” Then “In that case, what happened?” and “Why do you think that happened?” Help children to understand that in counting a set of objects the idea is to count each individual object once and only once. This strategy is similar to the physical strategy of counting objects by moving them, one at a time, from one pile to another pile. Try this with Lego blocks and ask students how it compares to the strategy of clicking on the ducks.
- 2) *Does it matter in which order you click on the ducks?*  
Hopefully at least one child will say that by organizing the order in which they click on the ducks (i.e., following some kind of pattern), they can be sure to mark all the ducks. Because a duck changes when a student clicks on it, the group may answer that it doesn’t matter at all. In that case, you might ask: “If you clicked on a duck and nothing changed, how would you know when you had finished counting all of the ducks?”
- 3) *Describe how you counted the ducks. Why was this a good way to count them?*  
Try to elicit any patterns students used in organizing their order of clicking, following up on the previous discussion.
- 4) *Did you find the counter helpful as you worked on the game?*  
Anticipate that there may be a mix of yes and no answers. Maybe start by addressing students who say it didn’t help because some students may not have even noticed the counter being filled. Draw seven objects on the board and an empty counter. As you count each object, color a cell of the counter, demonstrating what the software did. Ask students what is easier to count, while pointing at the randomly drawn objects or instead at the organized counter with some cells coloured. Hopefully some students may say that the counter is useful as a “recording” tool because the number of coloured cells is easy to count. Note that we have divided the counter into two visible halves (lower five cells; upper five cells) anticipating that students will quickly learn to recognize when a counting frame has a particular number of coloured cells. You may also ask students if, when counting physical objects, they ever used a similar trick to record their count, such as drawing a slash for each object counted. This sequence of /// lines is the paper and pencil equivalent of using a counter in the software, often with a horizontal line drawn to indicate a count of five.

