

Activity 1: Counting classmates

Overview

Primary and junior-level students will learn about collecting data to better understand a group of people. They will gather information and compare their findings with simplified statistics derived from the 2016 Census.

Estimated completion time:



Suggested grade level:



Objectives

- Gain a basic understanding of the census and the kind of data that it collects.
- Create a statistical portrait of their class.

Subject-specific learning objectives

Mathematics

- Collect primary data.
- Create basic representations of simple data collected during a survey.
- Read and describe primary data presented in charts, tables and graphs.

Social studies

- Gain a basic understanding of the roles and responsibilities of local governments.
- Begin to discuss how needs are met in communities

Materials

Supplies

- Board or poster paper
- Chalk or marker
- Various tokens and stickers
- Timer or noisemaker to signal when time is up

Handouts

- Simplified census questions for centres
- Simplified 2016 Census data (*optional*)
- Take-home activity: New student (*optional*)

Vocabulary

- Census:** A collection of information from every household in a country, on topics that are important to that country, that is used to help all levels of government, businesses, associations, community organizations and many others make decisions.
- Census of Population:** An enumeration of every household and person in Canada, conducted once every five years. Topics include age, marital status, household members and languages spoken.
- Data:** Facts that can be studied and considered to form ideas or make decisions.
- Dwelling:** A place where a person or group of people live or could live. The dwelling's entrance must be accessible without passing through the living quarters of some other person or group of people.
- Household:** A person or group of people who live in the same dwelling.
- Population:** The total number of people living in a given area.
- Sample:** Part of a larger group that can be used to represent the whole (e.g., one out of five households in a populated area).
- Statistics:** Numerical facts.
- Survey:** An activity where a specific group of people is asked a series of questions to find out information.



Part 1: Getting started (15 to 30 minutes)

- 1 Ask students to think about three things they would like to know about their classmates, such as their ages or birthdays. Come up with three questions and write them where all students can see them.
- 2 For each question, ask the class to stand up or sit down to answer (e.g., “Stand up if...”, “Sit down if...”). Note the results for these responses on the board or on poster paper.

Sample questions

- Do you have a birthday in the summer, fall, winter or spring?
- Do you write with your right hand or left hand?

- 3 Introduce the concepts of a survey and the Census of Population to students. Ask them to think about a survey that they or their family has completed in the past, such as a customer service survey at a store.

What is the Census of Population?

- The Census of Population is a survey that takes place every five years and asks questions about every person who lives in Canada, not just a small group of people. A sample of the population (one in four households, or 25%, in 2016) also receives additional questions as part of the long-form questionnaire.
- The census gathers facts about people who live in Canada, including facts about how old they are, whether they are legally married, whom they live with and what languages they speak.
- The information gathered from the census is used to learn about the people who live in Canada. This helps governments, Indigenous leadership, businesses, associations, community organizations and many others make decisions about the programs and services they provide.

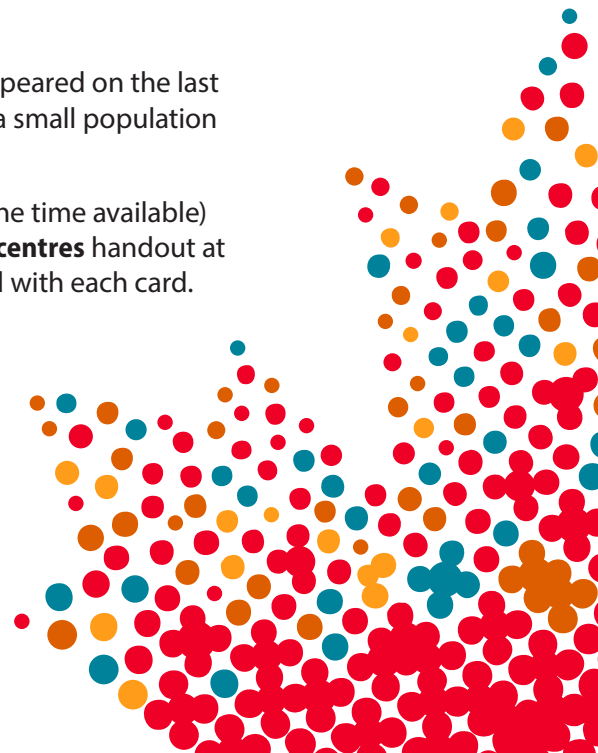
What is a survey?

A survey is an activity where a specific group of people is asked a series of questions to find out information.

Part 2: Activity (30 to 45 minutes)

- 4 Tell the students that they are going to answer some questions that appeared on the last Census of Population to gather information about their class (which is a small population within the larger population of Canada).

Set up three to five learning centres around the room (depending on the time available) and place one question card from the **Simplified census questions for centres** handout at each centre. Data collection suggestions and tools have been provided with each card.



Alternatively, set up a “survey centre” in one part of the room and have students answer a new question each day, using a different data collection tool for each day of the week.

- 5** Use a timer or signal to help groups rotate quickly through the different centres. Encourage students to take turns reading instructions to their classmates.

Part 3: Consolidation of learning (30 to 45 minutes)

- 6** After the groups have completed one full rotation, review the findings from each centre. Ask students questions about the data and have them choose the most interesting fact from their class survey. Record this fact and encourage students to think about why it might be useful for their teacher or principal.

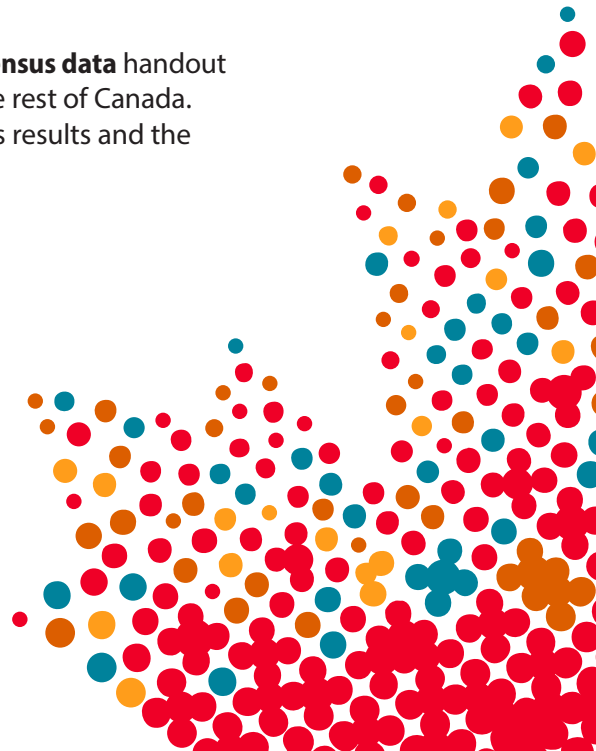
General questions

- Are any of the data surprising?
- How is this information helpful to you? Your teacher? Your principal?
- If someone asked your class the same questions in five years, would the data be different? How?
- What if we knew the answers to these questions for everyone in Canada? How would this be helpful?

Specific questions to ask about the data

- Do more or less than half of the students in this class speak French at home?
- Do more or less than half of the students in this class speak a language that is not French or English at home?
- How old are most of the students in this class?
- In which month do most students have birthdays?
- There are 25 households in this classroom (one for each student). How many households have children who are 0 to 4 years old? How many have children who are 13 to 16 years old?

- 7** Compare the class results with the statistics from the **Simplified 2016 Census data** handout so students can compare with larger segments of the population in the rest of Canada. Ask them to identify the similarities and differences between the class’s results and the results for all of Canada.



Modifications

If students require additional support, try the following:

- Review the vocabulary list before starting the exercise. Write the words and definitions on the board, or write them on chart paper and post them around the classroom.
- Complete fewer centres (questions), or allow more time for groups to complete each centre. Explain the task for each centre before beginning.

If students require an additional challenge, try the following:

- Display the appropriate simplified census data card at each corresponding centre so students can compare the statistics from their class with larger segments of the population in the rest of Canada during the activity.
- Have students create different graphic representations (e.g., pictographs, bar graphs) of the data they collect about their class.

Next steps

To continue this activity, try the following:

- Ask other classes in the same cohort or grade level to complete the same activity, and then compare the data between classes.
- Have students create original survey questions or data collection methods, and ask them to gather more information about their classmates. Have each student write and present a brief “news report” about their most fascinating findings.

Optional take home activity: New student

Use the information students have gathered about their class to create a profile of an “average student” by selecting some of the most common responses from the class statistics. Encourage students to draw a picture of a fictional new student in their class who matches this description. For example, the “new student” may speak French at home, but English at school. They may celebrate their birthday in September and have two siblings who are 6 and 8 years old.

