

Are you a “modal” student?

Grades 4 and 5

Teacher's notes

Objectives

Grades 4 and 5 students will:

- read, interpret, and draw conclusions from primary data
- demonstrate an understanding of the mode
- use the mode to create a profile of a population
- compare similarities and differences between themselves and a population



Preparations

1. Print out copy of appropriate worksheet for each student:
Grades 4 to 5 worksheet (can be printed on 11" x 17" paper as a fold out with page 1 on the front and pages 2 and 3 on the inside)
2. Prepare copy of class dataset – can be either viewed on computers or printed out for each student or pair of students.
Teachers – if you are printing out the dataset, you may want to choose just enough columns of data for a double-sided page as the entire dataset is about 10 pages long.
3. Read the descriptions of the modal male and female student who completed the *Census at School* survey in a previous year on the **Lesson introduction** page. Discuss with the class how these descriptions were made and why neither of these students actually exists.

Time required

Allow at least 30 minutes for students to complete the worksheet, with additional time for the introduction and the follow-up discussion.

Activity

Page 1

Students choose 5 questions from the *Census at School* survey. They find and record the mode for each question. They also record their personal answer. At

the bottom of the page, they write a few sentences describing the modal student. They can start by writing, “The typical student in our class ...”.

Page 2

Students draw the “modal” or typical student in their class using the 5 modes that they found on page 1. They will have to be creative to figure out how to show some of these qualities on their drawing.

Page 3

Students draw a picture of themselves, being sure to show in their drawing how they are the same as or different from the modal student.

Follow up

1. Display the students’ drawings in the classroom and talk about why their drawings of the modal student are not all the same.
2. Discuss how the use of data, such as *Census of Canada* data, can be used to create a profile of a population. Why is this useful?

Lesson introduction

Here is a description of the typical or modal male student who took part in Canada's **Census at School** in a recent year.

He is 13 years old and 162 cm tall, his right foot measures 25 cm and he has a dog. He lives in a household consisting of four people and has brown eyes. He has access to a computer and Internet at home. His favourite sport to play is hockey. He looks up to a sportsperson and usually walks to school.



However, if you looked at the dataset of the survey results for all of Canada, there would be no such student.

Now, let's look at the typical or modal female student who took part in Canada's **Census at School** in a recent year:

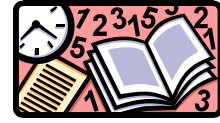


She is also 13 years old. She measures 159 cm tall, her right foot measures 23 cm and she looks up to a relative. She likes grain products for breakfast. Her favourite subject at school is Physical Education and her favourite sport is swimming. She spends 26 minutes on the bus each morning to get to school.

However, once again, there is no student who fits this description in the Canadian dataset.

Try to explain why these two students do not exist.

Are you a “modal” student?



1. Choose 5 questions from your class dataset.
2. Use your class dataset to find the mode for each question in the 2nd column.
3. In the 3rd column, print **your answer** for each question.

Question from the <i>Census at School</i> survey	Mode	My answer

4. Write a description of the **modal student** for your class.

The Modal Student for My Class

Draw a picture of the modal student for your class.

Me

Draw a picture of yourself.

Show how you are **the same as** or **different from** the modal student.