



English Language Arts Grade 4 and 7
Math Grade 5
Social Studies Grade 5
Grade 4 or 5 (high achievers)
Can also be adapted for grades 6, 7, 8.

Lesson 3 of 5

Living
Respectfully

Preventing
Prejudice

Respecting
Diversity

Unit 7: North Versus South Different Villages

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Unit Objective

This unit will encourage students to examine the role of the Millennium Development Goals (MDGs) through statistical and country analyses for Canada as well as various countries around the world. Through the study of literature and statistical data, students will develop an awareness of how Canada differs from/is similar to one of the southern/developing nations on the Canadian International Development Agency's (CIDA) list. Through their study and using statistics, students will understand how countries differ in terms of education, poverty, hunger, gender, health, population, access to water and rural versus urban.

Note: Lessons that must be taught first include rounding, writing numbers into words, rate and proportion, and percent for the more advanced.

Time

This unit comprises five lessons and will take approximately ten to fifteen hours, depending upon the extension activities chosen. It is recommended that this unit be taught on a weekly basis (one lesson each week for five weeks) as each lesson is intended to cover a two-to three-hour block of time.

Lesson 3: Canada—What Is Life Like for Us?

Objective

Students develop an understanding of how data collection aids in painting a picture of what life is like for people in Canada. Through the collection of their own data, as well as research data on Canada, students will further develop their statistical and data skills while learning more about themselves and how they live.

Time

This lesson will cover approximately two to three hours of class time; it is recommended that the lesson be completed over an afternoon or back-to-back classes if possible.

✂ Materials

- Posters and journals from Lesson 2
- Statistics Canada Website at www40.statcan.ca/101/cst01/
- Virtual Winter Count activity at www.statcan.ca/english/kits/cyb2001/countin2.htm
- Large poster paper
- Journals

Getting Started

Knowledge Now

- Take a few moments for students to become re-acquainted with the Millennium Development Goals from the previous lesson using both presentation poster boards and their journals.
- Brainstorm together as a large group:
 - What issues in the world today that are addressed in the MDGs can you most relate to? Are the issues highlighted in the Millennium Development Goals (example: poverty, inequality, etc) a lived experience in Canada? What kinds of problems do you think people in Canada face? In our own lives?
Note: This could be a *difficult and controversial* question to ask students. Depending on the class makeup students may not feel comfortable to share or divulge their personal information. Teachers should be very careful with this part of the lesson.
 - What actions do you think Canada should take to address the MDGs?

Engaging Interest

- Students will have an opportunity to collect their own data in order to create their own picture of what life is like for them and compare this with the national data for Canada. The question, what is life like for us? lies at the heart of statistics. Students have a chance to explore fundamental queries: what counts, how we count, who counts and why we count.
- Inform students that part of the lesson will involve collecting data on Canada; however, before they complete that task, they will explore what issues and categories are important to them in their lives as students.
- First, as a large group, collectively decide what categories are most important to them. This could include areas relating to students' quality of life or areas in general that have an influence on their lives as youth. This activity does not require students to consider weightier issues that relate to the MDGs; rather, it should be categories that interest them. Some possible categories include:
 - physical activity,
 - average time spent on activities,
 - television viewing time,
 - reading habits and
 - most popular sports.
- Once categories are chosen, students must decide what specific questions students should ask when they start. For example, which specific sports do they think they should they collect data about? What's the best way of doing that? Can they see any problems when they decide in advance which sports to include in their survey, and which ones to leave out? Can they see any problems if they just leave a blank under the word *sports* and let people fill in the names of the sports they play?

- The question of how to define terms is going to come up. If they are collecting data on television watching, for example, what kinds of things will they need to agree on so that they are sure they end up counting the same things when people fill out their survey?
- Students must also decide on a format for the survey. Explore the importance of asking questions in standard ways (both benefits and drawbacks) and how to organize the questionnaire effectively. Students might want to look at the tables on the Canadian Statistics website, www40.statcan.ca/l01/cst01/ to get some ideas about how to organize a questionnaire.
- After students have collected and organized the data, ask them to reflect on the data they have collected. If you can say what life is like for an average student in your class, how would you answer a student who says, "But I'm not like that at all"? This is a place to talk about how statistics let you make generalizations about populations. The reverse process is not possible, however: you cannot go from a generalized statement about a group of students to say that this is what any particular student must then be like.

Learning Activities

- Having had the experience of collecting their own data, students have created their own picture of what life is like for them and can now look at how life is for Canadians in general.
- Divide children into seven groups. Each group is responsible for determining the statistics for the following categories. Students can access this information via the Statistics Canada website, www40.statcan.ca/l01/cst01/.
 - Total population of Canada. Write this number in words.
 - Statistics for Canadian population by age category. Which category has the largest population?
 - Statistics for Canadian population by age category. Which category has the smallest population?
 - Life expectancy (at birth) for Canadians.
 - Mortality rate for Canadians under 5 years old.
 - Physical size of Canada.
 - Literacy rate for females and males.
- Once students have collected their data, using a large piece of paper, ask each group to display their statistics.
- When all of the data has been collected, ask students to individually create, on a sheet of paper or in their journals, a format that will represent this data effectively. What is the best way to organize and present this data? Students can then share their format in pairs and collectively decide on a best format. Each pairing can then share their formats with another pair and decide on a best approach; the group of four shares with another group, etc. until the class as a whole decides on what format would be best suited for organizing and presenting the data.
- Once the format has been decided, students can instruct their teacher in formatting the data onto a large piece of poster paper.

Assessment/Analysis

- Students will utilize all information and statistics from this lesson as they work on this unit. It will serve as a culmination and celebration of their study on the Millennium Development Goals.

- In their journals, students reflect on data collection and analysis. Do you think the picture of the average student they have drawn would apply to students all across Canada?

Application

- Students will be applying the knowledge they have gained in this lesson in the upcoming lessons.


Activities for Extension and/or Integration

- Virtual Winter Count www.statcan.ca/english/kits/cyb2001/countin2.htm. Your students will learn that a winter count was a way that several North American Plains Indians tribes recorded their history. In this part of the project, your students will create their own version of a winter count, using graphics and stories to record and communicate a picture of what life is like for a typical student their age. Each month, your class will decide on the most important event of the month to record. They will choose or create a graphic to represent that event, and decide how best to tell the story that lies behind the graphic. Maybe September is the month they started to learn keyboarding. Perhaps November is the month everyone in the school had to get meningitis shots. In April, there might have been a freak snowstorm that closed the school for three days. And perhaps May was graduation. Please refer to the website for more information and teacher's notes.

Subject and Level Learner Outcomes for Subject and Level

Grade 5 Social Studies

5.S.1 Students will develop skills of critical thinking and creative thinking

- Critically evaluate ideas, information and positions from multiple perspectives 
- Re-evaluate personal opinions to broaden understanding of a topic or an issue
- Generate original ideas or strategies in situations of individual and group activities

Grade 4 English Language Arts

1.1 Discover and Explore

Express ideas and develop understanding

- Compare new ideas, information and experience to prior knowledge and experiences
- Ask questions, paraphrase and discuss to explore ideas and understand new concepts

1.2 Clarify and Extend

Consider the ideas of others

- Identify other perspectives by exploring a variety of ideas, opinions, responses and oral, print and other media texts

Grade 5 English Language Arts

1.1 Discover and Explore

Express ideas and develop understanding

- Use appropriate prior knowledge and experiences to make sense of new ideas and information
- Read, write, represent and talk to explore personal understandings of new ideas and information
- Use own experiences as a basis for exploring and expressing opinions and understanding

1.2 Clarify and Extend

Consider the ideas of others

- Seek the viewpoints of others to build on personal responses and understanding

Grade 4 Math

Strand: Statistics and Probability (Data Analysis)

Students will:

- Collect, display and analyze data to make predictions about a population

General Outcome: collect first- and second-hand data, assess, and validate the collection process, and graph the data

Specific Outcomes

1. Select a sample or population, and organize the collection of data.
2. Manipulate data to create an interval graph/table for display purposes.
4. Discuss the process by which the data was collected.

Strand: Number (Number Concepts)

Students will:

- Use numbers to describe quantities
- Represent numbers in multiple ways

General Outcome

Demonstrate a number sense for whole numbers 0 to 10,000,

3. Read and write numerals to 10,000
4. Read and write number words to 1,000

Grade 5 Math

Strand: Statistics and Probability (Data Analysis)

Students will:

- Collect, display and analyze data to make predictions about a population

General Outcome: develop and implement a plan for the collection, display and interpretation of data to answer a question

Specific Outcomes

1. Identify a question to generate appropriate data, and predict results
2. Distinguish between a total population and a sample of that population
3. Use a variety of methods to collect and record data
4. Evaluate the graphic presentation of the data to ensure clear representation of the results
7. Discuss the reasonableness of data and results
8. Make inferences to generate a conclusion about the data

Strand: Number (Number Concepts)

Students will:

- Use numbers to describe quantities
- Represent numbers in multiple ways

General Outcome

Demonstrate a number sense for whole numbers 0 to 100,000

Specific Outcomes

2. Read and write numerals to 100,000
3. Read and write number words to 100,000

Safe and Caring Topics and Concepts

Living Respectfully:

- Examining ways that injustice affects people
- Respecting and appreciating others' ideas, insights, solutions and contributions

Respecting Diversity and Preventing Prejudice

- Respecting different points of view builds community and helps to prevent or resolve conflict
- Studying different cultures, religions and lifestyles in society and in the school

Teaching Strategies

	Cooperative Learning	Inquiry Learning	Direct Instruction
<p>Go to www.sacsc.ca Click on Resources, Strategies for strategy descriptions</p>	<ul style="list-style-type: none"> • Think-pair-share • Small and large group 	<ul style="list-style-type: none"> • Surveys, • Problem Solving • Question creation • Collecting and • Recording data 	

Generalization and Transfer	Peer Teaching	Empathy/Affective Education	General Teaching Activities/Ideas
<ul style="list-style-type: none"> • Comparing quality of life for Canadian youth 	<ul style="list-style-type: none"> • Sharing research findings 	<ul style="list-style-type: none"> • Journalling 	<ul style="list-style-type: none"> • Brainstorming

Supplementary Resources

- Canada Quiz! based on Canadian statistics, available on the Statistics Canada website www.statcan.ca/english/edu/canquiz/cquiz2.htm