

**Grades 4-8 Atlantic Canada  
Data Management Curriculum Outcomes  
and Related Statistics Canada Internet Resources on [www.statcan.ca](http://www.statcan.ca)**

**Grade 4**

<b>Specific Grade 4 Curriculum Outcome</b>	<b>Related Statistics Canada Resources</b>
<p><b>F1</b> Recognize and use a variety of methods for the collection and organization of data</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">What is the average height of your class?</a></li> <li>• <a href="#">The Vitruvian theory – does it apply to you?</a></li> <li>• <a href="#">You are the researcher!</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Data collection</a></li> <li>• <a href="#">Household Environment Survey – School Edition</a></li> </ul>
<p><b>F2</b> Describe data maxima, minima, range and frequency</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Data Collection</a></li> <li>• <a href="#">Statistics: Power from Data!: Range and quartiles</a></li> </ul>
<p><b>F3</b> Read and interpret bar graphs, line graphs, pictographs and stem-and-leaf plots</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">What is the average height of your class?</a></li> <li>• <a href="#">The Vitruvian theory – does it apply to you?</a></li> <li>• <a href="#">Canada recycles! Do you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Bar graphs</a></li> <li>• <a href="#">Statistics: Power from Data!: Line graphs</a></li> <li>• <a href="#">Statistics: Power from Data!: Pictographs</a></li> <li>• <a href="#">Statistics: Power from Data!: Stem and leaf plots</a></li> </ul>
<p><b>F5</b> Construct bar graphs, pictographs and stem-and-leaf plots</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Canada recycles! Do you?</a></li> <li>• <a href="#">Circle and bar graphs</a></li> <li>• <a href="#">Travel to school</a></li> <li>• <a href="#">What is the average height of your class?</a></li> <li>• <a href="#">The Vitruvian theory – does it apply to you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Bar graphs</a></li> <li>• <a href="#">Statistics: Power from Data!: Pictographs</a></li> <li>• <a href="#">Statistics: Power from Data!: Stem and leaf plots</a></li> </ul>

<b>F6</b> Interpolate data from a display	
<b>F7</b> Describe data, using the mean	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How many people live in a Canadian household?</a></li> <li>• <a href="#">What is the average height of your class?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Calculating the mean</a></li> </ul>
<b>F8</b> Explore real-world issues of interest to students and for which data collection is necessary to determine an answer	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You Are the Researcher</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Census at School</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Community Profiles</a></li> </ul>

## Grade 5

<b>Specific Grade 5 Curriculum Outcome</b>	<b>Related Statistics Canada Resources</b>
<b>F1</b> Use double bar graphs to display data	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Canada recycles! Do you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Bar graphs</a></li> </ul>
<b>F2</b> Use bar graphs to display and interpret data	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Circle and bar graphs</a></li> <li>• <a href="#">Canada recycles! Do you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Bar graphs</a></li> </ul>
<b>F3</b> Use coordinate graphs to display data	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Graph types</a></li> </ul>
<b>F4</b> Create and interpret line graphs	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Line graphs</a></li> </ul>
<b>F5</b> Group data appropriately and use stem-and-leaf plots to describe the data	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Travel to school</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Stem and leaf plots</a></li> </ul>
<b>F6</b> Recognize and explain the effect of certain changes in data on the mean of that data	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Calculating the mean</a></li> </ul>

<p><b>F7</b> Explore relevant issues for which data collection assists in reaching conclusions</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You Are the Researcher</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Census at School</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Community Profiles</a></li> </ul>
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## Grade 6

Specific Grade 6 Curriculum Outcome	Related Statistics Canada Resources
<p><b>F1</b> Choose and evaluate appropriate samples for data collection</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Sampling methods</a></li> <li>• <a href="#">Statistics: Power from Data!: Sampling error</a></li> <li>• <a href="#">Statistics: Power from Data!: Data, information and statistics</a></li> </ul>
<p><b>F2</b> Identify various types of data sources</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Data, information and statistics</a></li> </ul>
<p><b>F4</b> Use bar graphs, double bar graphs, and stem-and-leaf plots to display data</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You are what you eat!</a></li> <li>• <a href="#">Travel to school</a></li> <li>• <a href="#">Circle and bar graphs</a></li> <li>• <a href="#">Canada recycles! Do you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Bar graphs</a></li> <li>• <a href="#">Statistics: Power from Data!: Stem and leaf plots</a></li> </ul>
<p><b>F5</b> Use circle graphs to represent data proportionally</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Circle and bar graphs</a></li> <li>• <a href="#">Travel to school</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Pie charts</a></li> </ul>
<p><b>F6</b> Interpret data represented in scatterplots</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Data Management using E-STAT</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Scatterplots</a></li> </ul>

<p><b>F7</b> Make inferences from data displays</p>	
<p><b>F8</b> Demonstrate an understanding of the differences among mean, median, and mode</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">What is the Average Height of Your Class?</a></li> <li>• <a href="#">How many people live in a Canadian household?</a></li> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Measures of central tendency</a></li> </ul>
<p><b>F9</b> Explore relevant issues for which data collection assists in reaching conclusions</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You are the researcher!</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> <li>• <a href="#">How weird is our class?</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Census at School</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Community Profiles</a></li> </ul>

**Grade 7**

<p><b>Specific Grade 7 Curriculum Outcome</b></p>	<p><b>Related Statistics Canada Resources</b></p>
<p><b>F1</b> Communicate through example the distinction between biased and unbiased sampling, and first- and second-hand data</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Bias or No Bias?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Sampling error</a></li> <li>• <a href="#">Statistics: Power from Data!: Data, information and statistics</a></li> </ul>
<p><b>F2</b> Formulate questions for investigation from relevant contexts</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You are the researcher!</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> <li>• <a href="#">How weird is our class?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Questionnaire design</a></li> </ul>

<p><b>F3</b> Select, defend, and use appropriate data collection methods and evaluate issues to be considered when collecting data</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Survey says? Who says?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Data Collection</a></li> </ul>
<p><b>F4</b> Construct a histogram</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Histograms and histograms</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">E-STAT</a></li> </ul>
<p><b>F5</b> Construct appropriate data displays, grouping data where appropriate and taking into consideration the nature of the data</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Graph types</a></li> </ul>
<p><b>F6</b> Read and make inferences for grouped and ungrouped data displays</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Societal Indicators</a></li> <li>• <a href="#">Family Studies Kit</a></li> </ul>
<p><b>F7</b> Formulate statistics projects to explore current issues from within mathematics, other subject areas, or the world of students</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How weird is our class?</a></li> <li>• <a href="#">Comparing the health and lifestyles of 13 year-olds around the world</a></li> <li>• <a href="#">Comparing the food choices and body image of 15-year-olds around the world</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Community Profiles</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Census at School</a></li> </ul>
<p><b>F8</b> Determine measures of central tendency and how they are affected by data presentations and fluctuations</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How many people live in a Canadian household?</a></li> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Measures of central tendency</a></li> </ul>

<p><b>F9</b> Draw inferences and make predictions based on the variability of data sets, using range and examination of outliers, gaps and clusters.</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How many people live in a Canadian household?</a></li> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Measures of central tendency</a></li> </ul>
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**Grade 8**

<p><b>Specific Grade 8 Curriculum Outcome</b></p>	<p><b>Related Statistics Canada Resources</b></p>
<p><b>F1</b> Demonstrate an understanding of the variability of repeated samples of the same population</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How many people live in a Canadian household?</a></li> </ul>
<p><b>F2</b> Develop and apply the concept of randomness</p>	
<p><b>F3</b> Construct and interpret circle graphs</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Travel to school</a></li> <li>• <a href="#">Circle and bar graphs</a></li> <li>• <a href="#">Girls vs. Boys - Graphing exercise using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Circle graphs</a></li> </ul>
<p><b>F4</b> Construct and interpret scatter plots and determine a line of best fit by inspection</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Data Management Using E-STAT</a></li> <li>• <a href="#">Analyzing provincial forestry practices using bar graphs and scatter graphs</a></li> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> <li>• <a href="#">Linear modelling of the life expectancy of Canadians</a></li> <li>• <a href="#">When will the average Canadian live to be 100?</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Scatterplots</a></li> </ul>
<p><b>F5</b> Construct and interpret box-and-whisker plots</p>	<p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Constructing box and whisker plots</a></li> </ul>

<p><b>F6</b> Extrapolate and interpolate information from graphs</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">Canada at a Glance</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Canada at a Glance</a> booklet</li> <li>• <a href="#">Statistics: Power from Data!: Graph types</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Census at School</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Community Profiles</a></li> </ul>
<p><b>F7</b> Determine the effect of variations in data on the mean, median, and mode</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">How many people live in a Canadian household?</a></li> <li>• <a href="#">Canadians Your Age: Analysis of the 10-to-14 age group using E-STAT</a></li> </ul> <p>Teacher Resources:</p> <ul style="list-style-type: none"> <li>• <a href="#">Statistics: Power from Data!: Measures of central tendency</a></li> </ul>
<p><b>F8</b> Develop and conduct statistics projects to solve problems</p>	<p>Lesson Plans:</p> <ul style="list-style-type: none"> <li>• <a href="#">You are the researcher!</a></li> <li>• <a href="#">The Vitruvian theory—does it apply to you?</a></li> <li>• <a href="#">How weird is our class?</a></li> </ul> <p>Websites:</p> <ul style="list-style-type: none"> <li>• <a href="#">Census at School</a></li> <li>• <a href="#">E-STAT</a></li> <li>• <a href="#">Community Profiles</a></li> <li>• <a href="#">Societal Indicators</a></li> </ul>