## Grade 7 Mathematics

Week of March 1 - March 5

## Lesson 5.2: Graphs \& Spreadsheets

## Lesson Materials

- Lessons for Section 5.2 Graphs \& Spreadsheets
- Learning Guide (This PDF)

Use the link above to open the lessons for this section. Remember: on the lesson page, use the arrow next to the "Table of Contents" at the top of the page to move through the lessons. You can also click on the Table of Contents to open the menu so you can jump to a specific lesson page.


Numbers are all around us. They serve very different purposes depending on how they are used. A number is a mathematical object used to count,
measure or label.


Work through the online lessons for this section. You can work at your own pace or follow the suggested schedule below. Complete the activities in your Learning Guide as you work through the lessons. You can print the Learning Guide, or, copy out the questions on a separate piece of paper. Be sure to try the games and practice quizzes as you make your way through the online lesson book.

## Suggested Lesson Schedule

| Monday <br> - Spreadsheets <br> - LG 5.2 p. 3, \#1 | Wednesday <br> - Pie Charts <br> - Bar Graphs |
| :---: | :---: |
| Tuesday <br> - Line Graphs <br> - Scatterplots | Thursday <br> - LG p. 3-4, \#2-3 <br> Friday <br> - LG p. 4-6, \#4-5 |

### 5.2 Graphs \& Spreadsheets

1. Label the following cells on the spreadsheet below:
Ex. D3
E1
G10
14
A6
H6
G2

C3

|  | A | B | C | D | E | F | G | H | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  | Cell D3 |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |  |

2. Compare the data and its graph below. Does the graph accurately display the data? Explain your answer. Reminder: You can discuss the scales of the graph, the graph titles, the bar lengths, and the choice of graph type.
$\qquad$
$\qquad$
$\qquad$

|  | A | B |  |
| :---: | :--- | :---: | :---: |
| 1 | Month | Precipitation <br> $(\mathbf{m m})$ |  |
| 2 | January | 20 |  |
| 3 | February | 9 |  |
| 4 | March | 1 |  |
| 5 | April | 7 |  |
| 6 | May | 15 |  |
| 7 | June | 60 |  |
| 8 | July | 16 |  |
| 9 | August | 43 |  |
| 10 | September | 25 |  |
| 11 | October | 35 |  |
| 12 | November | 20 |  |
| 13 | December | 3 |  |
| 14 |  |  |  |
| 15 |  |  |  |


3. Use the line graph below to answer the following questions.
a. What is the altitude at the beginning of the trail?
b. What is the altitude at the end of the trail?
c. At what point on the Cascade
 Trail do you reach the highest altitude?
d. What section of the trail do you think would be most challenging ( $1^{\text {st }}$ half or $2^{\text {nd }}$ half)? Explain your answer.
4. Use Google Sheets, Microsoft Excel, Numbers, or another spreadsheet program to create some graphs. Print off your graphs and add them to the end of this Learning Guide to submit to your teacher. If you are unable to access a spreadsheet program, you may draw the graphs in the space provided.
a. Input the following data into a spreadsheet program and then use it to create a pie graph. Reminder: Make sure the title of the graph accurately reflects what the data is showing.

|  | A | B |  |
| :--- | :--- | ---: | ---: |
| 1 | Favourite Sport | Number of Students |  |
| 2 | Hockey | 7 |  |
| 3 | Gymnastics | 4 |  |
| 4 | Swimming | 10 |  |
| 5 | Baseball | 4 |  |
| 6 | Track \& Field | 2 |  |
| 7 | Other | 3 |  |
| 8 |  |  |  |
| 0 |  |  |  |

b. Why is a pie chart a good choice for displaying data on students' favourite sports?
c. Fill in the table below with real data from your life. Write times in the following format: hh:mm AM (ex. 8:00 AM, 12:17 PM)

| $f x$ |  |  |  |  |
| :--- | :--- | :--- | :---: | :---: |
|  | A | B |  |  |
| 1 | Day | Time I Get Up |  |  |
| 2 | Sunday |  |  |  |
| 3 | Monday |  |  |  |
| 4 | Tuesday |  |  |  |
| 5 | Wednesday |  |  |  |
| 6 | Thursday |  |  |  |
| 7 | Friday |  |  |  |
| 8 | Saturday |  |  |  |
| 9 |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

- Input the data into a spreadsheet program using the same time format.
- Try creating different kinds of graphs using this data.
d. Which graph is best for displaying this data? Why? (Attach a copy of this graph to the end of your Learning Guide for submission.)
e. Which graph was the least useful for displaying this data? Why?

5. Use the graph below to answer the following questions.

a. Why is a scatterplot graph a good choice for representing this data?
b. Draw a line through the scatterplot graph to represent the average height by age.
c. Based on the line that you drew, what is the average height of someone that is 14 years old?
