**WEEK 32 – Historical Data Graphing**

**Grade:** Intermediate (7/8)

**Unit:** Data

**Curriculum Expectations**  
**Math:** select from among a variety of graphs, including circle graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs  
**Social Studies-History:** interpret graphs on quality-of-life indicators … to help them understand perspectives of social reformers and the urban poor

**Activity  
1)** For this activity, you will evaluate a series of data and create graphs to analyze and discuss the data **2)** Below, there is a chart comparing the average annual salary over time from the years 1885-1917 of the average white male worker, with the average annual salary of an African Canadian male worker  
**3)** You must choose two types of graphs (you may choose from circle graph, bar graph, line graph or scatterplot). to compare various data points. Be sure to choose the graphs that best demonstrate the data you are comparing (ex. circle graphs compare %)  
**4)** You will answer a series of questions comparing your chosen graph and what it tells you about specific points of data  
**5)** When you are finished there is a series of questions to help you understand the data in historical context and compare your data analysis

**Check for Understanding**   
I can choose appropriate graphs to represent historical data  
I understand the relationship between mathematical data analysis and history   
I can analyze graphs with historical data for meaning

**Materials**   
Recording sheet (attached below), pencil, information sheet below or internet access, calculator

Average Annual Salary of Canadians

|  |  |  |
| --- | --- | --- |
| Year | Mean Annual White Canadian Male Salary | Mean Annual African-Canadian Male Salary |
| 1885 | $330 | $117 |
| 1890 | $350 | $125 |
| 1895 | $360 | $133 |
| 1900 | $375 | $140 |
| 1905 | $400 | $146 |
| 1910 | $417 | $150 |
| 1917 | $760 | $169 |

Graph #1: Your first graph will compare the average salary of White and African-Canadian Male workers to each other in the same year

What graph type did you chose and why?

What does this graph show you about the difference in salaries for Canadians of different races in the same period?

Graph #2: Your second graph will compare changes in salary over time for both White Canadian Males and African-Canadian Males

What graph type did you chose and why?

What is different about these two graphs? What do you notice about the increase over time?

Consolidation activities:

Do these annual salaries seem high or low? Why do you think that?

With the minimum wage in Ontario at $14/hour. If someone worked 35 hours per week, what would the salary of someone making minimum wage in Ontario today?

What might explain the difference between the average salary of Canadians of different races? What about the different rates of increase in pay?

Why might there have been a larger pay increase in 1917? What was happening in the world at that time and what might have caused this change?