**Assignment 7 – Excel Graphing**

**Objective**: In this assignment, you will be learning how to create graphs using data you have input on Microsoft Excel. You will create 3 different types of graphs and understand which to use depending on the type of data.

  

**Before You Begin…**

1. Create a new Edublog Post
	* Log into your Edublog and go to your Dashboard
	* Click Posts 🡪 Add New
	* Title: Assignment 7 – Excel Graphing
2. Open a new Excel blank workbook
	* Make sure to save this file with an appropriate name in your DL10 OneDrive folder
	* For each new type of graph (parts 1-3 of the assignment), create a new Sheet in your spreadsheet (tutorial: <https://www.youtube.com/watch?v=dyY2bTcwhoc>); make sure to name your 3 sheets appropriately.
	* **The online and desktop versions of Excel are a little different. We recommend you use the DESKTOP version for your assignments.**

**Sheet 1: Pie Graph**

A pie graph is used to show percentages of a whole. It compares categories with different number values.

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| Watch & Read | * How To Create A Pie Chart In Excel by Steven Bradburn <https://www.youtube.com/watch?v=0WNJkBXywMU>
* Pie Charts by Tableau

<https://www.tableau.com/data-insights/reference-library/visual-analytics/charts/pie-charts>  |
| Type of Data | For your pie graph, use data from your own daily life, such as:* Breakdown of minutes spent on different social media platforms in a week
* Ingredients in a baking recipe you tried
* Your spending categories over a month
* Time allotted to different activities in your day
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| Tips & Tricks | * Each “slice” of the pie should be labelled with percentages
* A descriptive title and legend should be included
* Do not complicate the visual display of the graph; the simpler the better
* Pie graphs work best for showing data with 5 categories or less
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**Add a screenshot of your data and graph on your Edublog post. Write a 2-3 sentence description about it underneath.**

**Sheet 2: Bar Graph**

A bar graph is used to compare different groups easily. The x-axis is non-numerical, and the y-axis is numerical.

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| Watch & Read | * How to Make a Bar Graph in Excel by Excel Tutorials by EasyClick Academy

<https://www.youtube.com/watch?v=fk-iFv5_Rdo> * Bar Graph by SplashLearn

<https://www.splashlearn.com/math-vocabulary/geometry/bar-graph> * A Complete Guide to Bar Charts by Mike Yi

<https://chartio.com/learn/charts/bar-chart-complete-guide/>  |
| Type of Data | For your bar graph, survey a group of at LEAST 10 people (e.g. your friends, family, classmates, tech leaders, teachers). Sample survey questions include:* What is your favourite candy?
* What month is your birthday in?
* What mode of transportation do you take to school?
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| Tips & Tricks | * For this assignment, create a vertical bar graph, NOT horizontal
* Make sure your axes are appropriately scaled (data fills up the graph and limit blank space)
* EXTENSION FOR BONUS MARK: Create a Microsoft Form to digitize your survey. Include the QR code or link to your survey in this sheet below your graph.
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**Sheet 3: Line Graph**

A line graph is often used to track changes over time or visualize relationships between two variables. Both the x-axis and y-axis are numerical. Series of data points are plotted, and they are connected or a line of best fit is drawn (also known as “trend line”).

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| Watch & Read | * Making Scatter Plots/Trendlines in Excel by BurkeyAcademy

<https://www.youtube.com/watch?v=kLROcLFzH8o> * How to Make a Scatter Plot in Excel

<https://www.youtube.com/watch?v=MfEAEmdFOBo&t=21s> * Scatter Plot vs. Line Graph by ChartExpo

[https://chartexpo.com/blog/scatter-plot-vs-line-graph#](https://chartexpo.com/blog/scatter-plot-vs-line-graph)  |
| Type of Data | For your line graph, you will get your data from one of the following websites:1. Compound growth calculator: <https://mdm.ca/learn/compound-growth-calculator?fixed=fixed>
2. Growing Plants: <https://gizmos.explorelearning.com/find-gizmos/launch-gizmo?resourceId=615>
3. Bacteria growth calculator: <https://www.omnicalculator.com/biology/bacteria-growth>

**You can use other websites that you have found, collect your own data, or use old data from a previous course. Just make sure that both your variables are numerical.** |
| Tips & Tricks | * For our course, a scatter plot and line graph mean the same thing, because you will be adding a trendline to your scatter plot.
* Label all your axes well with appropriate scales
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**Add a screenshot of your data and graph on your Edublog post. Write a 2-3 sentence description about it underneath.**

**Add your final Excel spreadsheet document at the end of your Edublog post. You can do this by clicking “Add Document” and uploading your file.**

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| **Instructions for Submitting this Assignment*** Make sure ALL SECTIONS and details are checked, edited, and thoroughly completed.
* Upload your Excel file on a new Edublog post under “DL 10” category. View the post and double check that your spreadsheet has been attached properly.
* Copy the direct link of your post to submit to TEAMS (**NOT just your homepage link- it MUST be the DIRECT link to your Assignment 7 post**) If your link contains the words “admin” or “preview”, teachers will not have access to it!
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