## Lesson 5 - Bar Graphs

In statistics, it is very common to use a bar graph to represent your data.

This type of graph is used to show how often a specific result occurs.

For example, we could use a bar graph to show how many people are a certain age, in a certain grade, wear a certain size of shoe...etc.

Whenever you make a bar graph there are several things you need to include:

1. You need to fully label each axis so we know what is going on. If you are looking at age, you need to write that in since the numbers alone don't give enough information.
2. You need to make sure that the scale on your graph is evenly labelled. You cannot let 1 cm equal 10 and then let 2 cm also equal 10.

## Example 1:

The following graph show how much of each type of fruit has been sold at the grocery store.


Create a Table of Values for the data on this chart

| Type of Fruit | Sales In Kg |
| :---: | :---: |
| Apples | 100 |
| Oranges | 50 |
| Pineapple | 20 |
| Grapes | 30 |
| Bananas | 80 |
| Blueberries | 30 |

## Example 2:

A survey was done to determine what people's favorite foods were when they go to the carnival. A graph of the results is given below.

Given the following graph, fill in the table of values that represents the data.

People's Favorite Carnival Foods


| Favorite Food | \# of People |
| :---: | :---: |
| Hamburgers |  |
| Pizza |  |
| Chicken Wings |  |
| Hot Dogs |  |
| Soup |  |
| Grilled Cheese |  |
| Fruit |  |

## The Next Steps:

In most surveys we usually have data in a very large table that needs to be sorted into categories. After creating the categories, we need to count how many people are in each.

## Example 3:

The shoe sizes of everyone in Grade 7 is given in the table below.

| 6 | 8 | 5 | 6 | 7 | 9 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 7 | 5 | 8 | 7 | 6 | 6 |
| 8 | 6 | 7 | 6 | 7 | 7 |

Create a Table of Values that shows how many of each shoe type is worn.

| Shoe Size | Number of Students |
| :---: | :---: |
| 5 |  |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |

Create a Bar Graph that represents the data in the table of values.

| Shoe <br> Size | Number of <br> Students |
| :---: | :---: |
| 5 | 2 |
| 6 | 6 |
| 7 | 6 |
| 8 | 3 |
| 9 |  |

Number of Students


## Question 1:

People were asked what their favorite holiday was. The results are in the table below.

| Christmas | Valentines Day | Easter | Halloween |
| :---: | :---: | :---: | :---: |
| Halloween | Christmas | Christmas | Valentines Day |
| Thanksgiving | Christmas | Halloween | Christmas |
| Halloween | Thanksgiving | Christmas | Thanksgiving |
| Christmas | Valentines Day | Easter | Christmas |

Create a table of values that will summarize the results.

| Holiday | Number of People |
| :---: | :---: |
| Christmas |  |
| Halloween |  |
| Thanksgiving |  |
| Valentines Day |  |
| Easter |  |

Create a Bar Graph that will represent your data.
People's Favorite Holidavs


## Question 2:

The students in the grade 9 class were surveyed to find out what their shoe sizes are. The results are listed in the chart below.

| 7 | 6 | 8 | 9 |
| :---: | :---: | :---: | :---: |
| 9 | 8 | 9 | 10 |
| 8 | 10 | 12 | 7 |
| 9 | 8 | 9 | 11 |
| 8 | 10 | 9 | 10 |

Create a table of values that will summarize the results.

| Shoe Size | Number of People |
| :---: | :---: |
| 6 |  |
| 7 |  |
| 8 |  |
| 9 |  |
| 10 |  |
| 11 |  |
| 12 |  |

## Create a Bar Graph that will represent your data.

Grade 9 Shoe Size


## Practice: Worksheet

