

## What's Going On?

**Checking In**

**Minds on**

Vocabulary Bonanza!

**Action!**

Scatter!

**Consolidation**

Putting it All Together

**Learning Goal - I will be able to create and interpret scatter plots.**

# New Unit

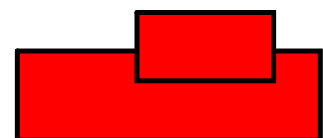
## **Unit 3: Modelling with Graphs**

**Unit Test: Friday, March 27**

**Minds on**

# Vocabulary Bonanza!

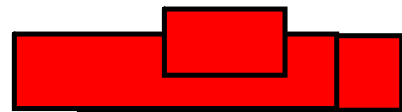
**Inference** - a conclusion based on reasoning and data



## Minds on

# Vocabulary Bonanza!

**Independent Variable** - In a relation, the variable that you need to know first. Its value determines the value of the dependent variable. On a graph, the values of the independent variable are on the horizontal axis.



**Minds on**

## Vocabulary Bonanza!

**Dependent Variable** - In a relation, the variable whose value depends on the value of the independent variable. On a graph, the values of the dependent variable are on the vertical axis. (y-axis)



**Minds on**

## Vocabulary Bonanza!

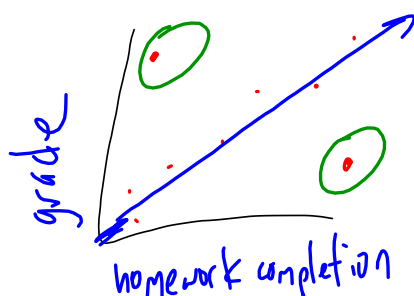
**Scatter Plot** - A graph showing two variable data as points plotted on a coordinate grid.



## Minds on

# Vocabulary Bonanza!

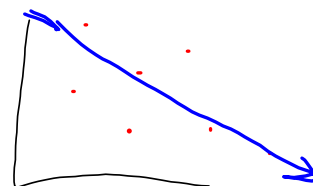
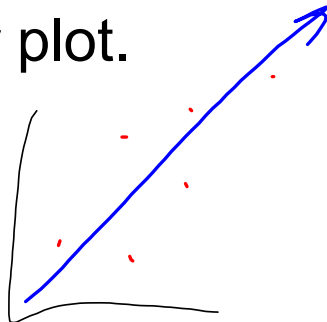
**Outlier** - A data point that does not fit the pattern of the other data.



## Minds on

# Vocabulary Bonanza!

**Line of Best Fit** - The straight line that passes through, or as near as possible to, the points on a scatter plot.

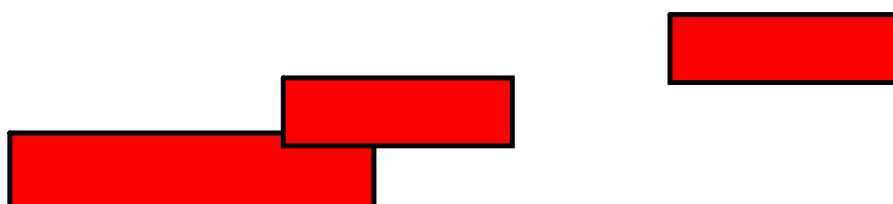




## Minds on

# Vocabulary Bonanza!

**Trend** - a recognizable and describable pattern in the values of two variables



## Minds on

# Vocabulary Bonanza!

**Correlation** - a relationship between two variables where the values of the dependent variable can be predicted given the values of the independent variable.



## Minds on

# Vocabulary Bonanza!

**Positive Correlation** - a correlation where an increase in the values of the independent variable results in an increase in the values of the dependent variable and vice versa.



## Minds on

# Vocabulary Bonanza!

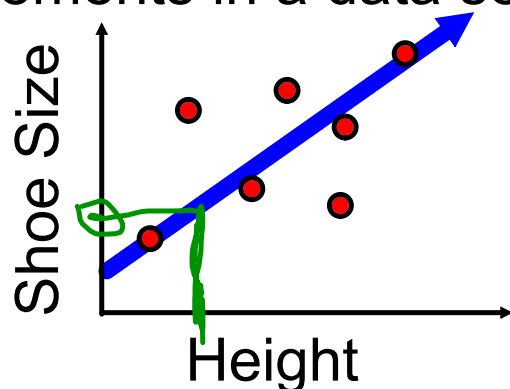
**Negative Correlation** - a correlation where an increase in the values of the independent variable results in a decrease in the values of the dependent variable and vice versa



## Minds on

# Vocabulary Bonanza!

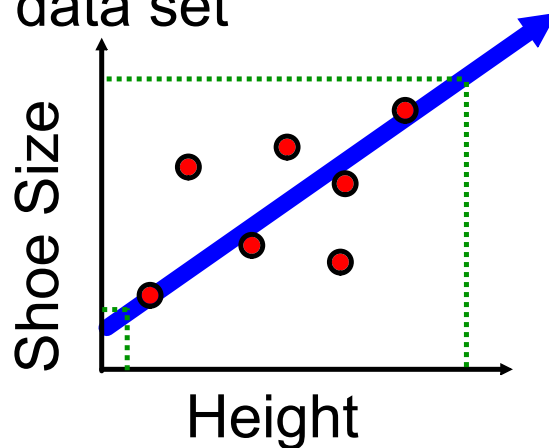
**Interpolate** - to estimate a value **between** two measurements in a data set.



## Minds on

# Vocabulary Bonanza!

**Extrapolate** - to estimate a value **beyond** the range of a data set



either above  
or below

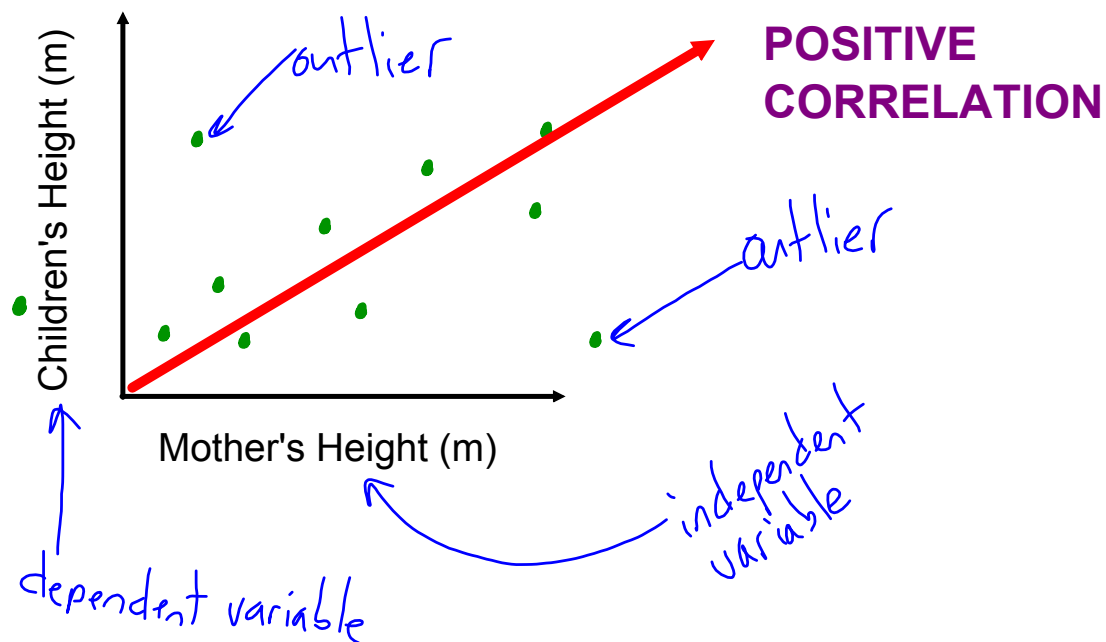
**Action!**

# Scatter!

Mother's height and the height of her children.

**Independent Variable**  
Mother's height

**Dependent Variable**  
height of her children



Trend: As the height of the mother increases, the height of her children increases.

"As (INDEPENDENT VARIABLE) INCREASES,  
DEPENDENT VARIABLE increases (OR) decreases

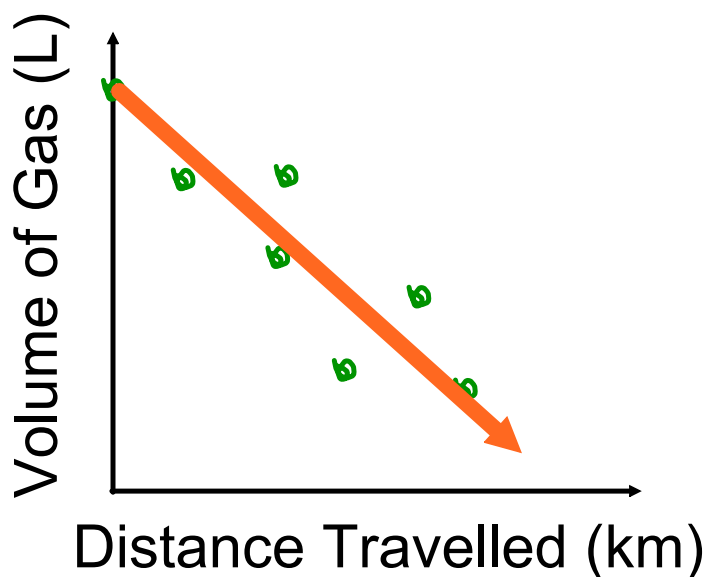
**Action!**

## Scatter!

The distance travelled by a car in km and the volume of gasoline in the tank in L.

**Independent Variable**  
distance travelled

**Dependent Variable**  
volume of gas



Trend: As the distance travelled increases, the volume of gasoline remaining decreases.



## Consolidation

# Putting it All Together

Now we are going to actually create a scatter plot from a given set of data.

Then, we are going to identify trends and answer some questions about the data.