## Middle School Science Virtual Learning

## Science

Map Review Graphing April 20, 2020

Life Science
Interpreting Graphs: April 20, 2020

## Objective/Learning Target:

I can use tables, charts, and graphs to display and analyze data.

## Let’s Get Started!

Get out a sheet of paper to take notes on the different types of graphs that you will be using in Science.

Click on the video to take notes about the different types of graphs you will be using in Science.

On the next slide you will be learning about the different parts of a graph.

## Practice

Connect the terms on the left to the correct part of the graph.

1. Title
2. Scale
3. $X$-axis
4. Y -axis
5. Labels


## Practice Answers

Draw a line from the label to each part of the graph.

1. Title
2. Scale
3. X -axis
4. $Y$-axis
5. Labels


## Graphing Basics



Watch the video to the left once all the way through first. Then, you may start/stop the video a second time through while answering the following questions.

1. There are three (3) steps to understanding or interpreting a Graphs/Tables/Charts. What are they?
2. Simply put, what is the purpose of a graph or what is it actually telling you?
3. If a line on a line graph slopes down from left to right, what type of relationship is this between the two (2) variables?
4. If a line on a line graph slopes up from left to right, what type of relationship is this?

## Answers to Video Questions

## Answers to Video Questions

1. 2) Determine what the graph/table/chart represents, what is it about? READ the description! - Look at the Title and Labeling of X and Y axis; 2) Pay close attention to the 'Units" used on both $X$ and $Y$ Axis, know what they mean; 3) Look for trends or patterns in the data, do you see a pattern, cycles.
1. A graph shows you the relationship between two (2) variables (IV and DV!). A graph shows you how one variable may affect or influence the other variable.
2. It is an Inverse Relationship when the line slopes down from left to right. ( $Y$ is decreasing while $X$ is increasing)
3. It is a Direct Relationship when the line slopes down from left to right. $Y$ is increasing while $X$ is increasing as well.)

## More Practice

## Lesson Activity: How to Create Graphs

Read this article on how to create a Line Graph. Then, use the data in this chart to create a line graph using a pencil and a sheet of paper.

| Oxygen Production |  |
| :---: | :---: |
| Distance From Light <br> (cm) | Bubbles Produced <br> per Minute |
| 10 | 39 |
| 20 | 22 |
| 30 | 8 |
| 40 | 5 |

## Practice Answer Key

Line graph using a pencil and a sheet of paper answer:


## Self-Check

Did you remember to:

- Place a title on the top of the page.
- Draw $\&$ label the $x$ - and $y$-axes.
- Add your data points and connect them with a line.
- Create a key to identify what the line represents.

