**Unit 4 Vocabulary: Linear Function**

| **Concept/Vocabulary Word**  | **Definition**  |
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| Rate of Change | The difference between two output values divided by the difference between the corresponding input values.  |
| Slope | A measure of the steepness of a line on a graph; the rise divided by the run; the constant rate of change of a linear function. |
| Direct Variation | A linear function defined by an equation of the form *y = kx*, where *k ≠ 0.*  |
| Constant of Variation | The nonzero constant *k* in a direct variation equation. It is the constant ratio between the dependent and independent variables.  |
| Proportion | An equation that states that two ratios are equal.  |
| Linear | A straight line. A function/equation in the 1st degree.  |
| Nonlinear | Not in a straight line. A function/equation not in the 1st degree. |
| Function | A relation that assigns exactly one value in the range to each value of the domain. |
| Linear Equation | An equation whose graph forms a straight line.  |
| Linear Function | A function whose graph is a straight line.  |
| x-intercept | The x-coordinate of the point where the line crosses the x-axis.  |
| y-intercept | The y-coordinate of the point where the line crosses the y-axis.  |
| Slope-Intercept Form | The form of a linear equation described by the equation ***y = mx+b*** where *m* is the [slope of the line](http://www.mathopenref.com/coordslope.html) and *b* is the y-[intercept](http://www.mathopenref.com/coordintercept.html).  |
| Standard Form of a Linear Equation | The form of a linear equation described by the equation *Ax + By = C*, where *A*, *B*, and *C* are integers and *A* and *B* are not both zeros.  |
| Scatterplot | A graph with points plotted to show a possible relationship between two sets of data. |
| Line of Fit | A straight line through the data on a scatterplot that comes closest to all the data. The line of fit is used to help determine the type and strength of relationship between the data as well as help to make predictions.  |
| NOW-NEXT | NOW-NEXT form is the recursive process of getting from one number to the next number in the sequence.  |
| X → Input → Domain → Independent Variable |
| Y → Output → Range → Dependent Variable |
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