

Any standard **highlighted in yellow** has been determined by our WCSD teachers, district and state experts as essential for students to master.

Strand: I can define, evaluate, and compare functions. (8.F.1-3)			
Strand: I can use functions to model relationships between quantities. (8.F.4-5)			
Standard 8.F.1: I understand that a function is a rule that assigns to each input exactly one output.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I understand that functions describe relationships where one variable determines a unique value of the other. I recognize a graph of a function as the set of ordered pairs consisting of an input and corresponding output. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> function, input, output, dependent, independent 	<p>Question Stems</p> <ul style="list-style-type: none"> How did you solve the problem? What strategy did you use? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Functions Form A District CFA Functions Form B District CFA Functions GVC Form
Standard 8.F.2: I can compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions).			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can compare two linear functions, each represented a different way, and describe similarities and differences in slopes, y-intercepts, and values. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> slope, intercept, rate of change, function, linear, non-linear, negative slope, positive slope, verbal expression, zero slope, undefined slope 	<p>Question Stems</p> <ul style="list-style-type: none"> Explain how the different ways of solving functions relate... What were the steps involved? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Functions Form A District CFA Functions Form B District CFA Functions GVC Form

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Standard 8.F.3: I can interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line. I can give examples of functions that are not linear.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can distinguish between a linear and non-linear function given their algebraic expression, a table, or a graph. I can recognize functions written in the form $y=mx+b$ are linear and that every linear function can be written in this form. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> collinear, linear, nonlinear, input, output, domain, range, expression, vertical line test 	<p>Question Stems</p> <ul style="list-style-type: none"> A question I had was... What else would you like to find out about.....? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Functions Form A District CFA Functions Form B District CFA Functions GVC Form
Standard 8.F.4: I can construct a function to model a linear relationship between two quantities.			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can determine the rate of change and initial value of the function from a description of a relationship, from two values, for a table, or from a graph. I can interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values. I can write the equation of a line given two points, a graph, a table of values, a geometric representation, or a story problem (verbal description). 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> linear relationship, y-intercept, slope 	<p>Question Stems</p> <ul style="list-style-type: none"> I solved the problem by.... My strategy was successful because..... What decision can you make from the pattern that you discovered? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Functions Form A District CFA Functions Form B District CFA Functions GVC Form

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Standard 8.F.5: I can describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing; linear or nonlinear).			
<p>Learning Targets</p> <ul style="list-style-type: none"> I can describe attributes of a function by analyzing a graph. I can create a graphical representation given the description of the relationship between two quantities. 	<p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> increasing rates of change, decreasing rates of change, linear, nonlinear, initial value 	<p>Question Stems</p> <ul style="list-style-type: none"> Where would you see this in the real-world? How is this similar to....? 	<p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Functions Form A District CFA Functions Form B District CFA Functions GVC Form