

Algebra 1 Horizontal Alignment Planning Guide Second Six-Weeks

Learning Focus 2.1-Informal Patterns and Functions Investigation of informal patterns using discrete and continuous data.					
Key Concepts					
<ul style="list-style-type: none"> • Dependency Relationships • Dependent and Independent Variables 		<ul style="list-style-type: none"> • Discrete Data • Continuous Data 		<ul style="list-style-type: none"> • Positive and Negative Correlations • Reasonable Domain 	
HISD Objectives	Time Allocation	Assessment Connections	Instructional Considerations	Instructional Strategies	Resources
ALG1.2.01 Identify independent and dependent quantities and express them in functional relationships.	4 90-minute lessons	T(Obj 1)	Identify dependent and independent quantities from practical situations, and determine if the relationship is increasing or decreasing. Lead into discussion of positive, negative, or no correlation between the variables.	Represent practical situations with concrete, tabular, and graphic representations.	MLU 5, Lesson 1
ALG1.2.04 Identify mathematical domains and ranges and determine reasonable domain and range values for given situations, described by discrete or continuous data.	or 8 45-minute lessons	T(Obj 1)	Classify data as discrete or continuous when presented in verbal or graphic form. Reinforce the previous lesson by determining whether there is a positive, negative, or no correlation exhibited by the data.	Work with practical situations and multiple representations. Technology work with scatterplots (discrete data).	MLU 5, Lesson 2
ALG1.2.02 Describe a functional relationship for given problem situations, and write equations or inequalities to answer questions arising from the situations.		T(Obj 1)	Continue to review vocabulary and concepts: dependent and independent quantities, increasing and decreasing relationships, positive and negative correlations, discrete and continuous data.	Manipulatives and group work with patterns.	MLU 5, Lessons 3, 4
ALG1.2.03 Represent relationships among quantities by building concrete models, completing tables, constructing graphs or diagrams, writing verbal descriptions, and writing equations or inequalities.			Help students determine appropriate domain and range values as they work to determine relationships from patterns. Insist students use multiple representations including verbal and written.		



What is it we want all students to learn?

Objective Code Key:
 EL – Content Area.Grade.Strand.Objective
 HS – Course.Strand.Objective

T - Assessed on TAKS at grade level
 (Obj) = TAKS objective tested
 *(x) - Assessed on TAKS at specified grade level

MLU – Model Lesson Unit

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Learning Focus 2.3-Slope Investigate methods for finding the slope of linear functions and vertical lines.					
Key Concepts <ul style="list-style-type: none"> • Rate of Change • Slope of Horizontal/Vertical Lines • Positive/Negative Slope 					
HISD Objectives	Time Allocation	Assessment Connections	Instructional Considerations	Instructional Strategies	Resources
ALG1.2.10 Develop the concept of slope as rate of change, determine slopes from graphs, tables, and algebraic representations, and express slope as a ratio, decimal, or percent.	2 90-minute lessons or 4 45-minute lessons	T(Obj 3)	Use practical situations to develop the concept of slope as rate of change. Develop the concept of constant rate of change as a requirement for linear functions by connecting multiple representations of functions.	Compare and contrast linear and non-linear rates of change. Use technology, including calculator probes to explore rate of change and corresponding tables and graphs.	MLU 7, Lesson 1
ALG1.2.11 Interpret the meaning of positive, negative, zero, and undefined slopes and x- and y- intercepts in situations using data, symbolic representations, or graphs.		T(Obj 3)	Develop the slope formula from tables and graphs. Emphasize the concept of slope through exploration of parallel lines.	Students physically model different slopes, including no slope and undefined slope, with outstretched arms.	MLU 7, Lesson 2



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