



## Essentials for College Math (SREB Math)

### TERM 1

Term 1 Dates	MS College and Career Readiness Standards	Core Academic Vocabulary/Resources
Weeks 1- 5	<b>Unit 1: Algebraic Expressions</b> - The algebraic expressions unit was designed to solidify student understanding of expressions while providing the students with an opportunity to have success early in the course. The recurring theme integrated in this unit focuses on engaging students using and expanding the concepts found within purposefully chosen activities. Through guided lessons, students will manipulate, create and analyze algebraic expressions and look at the idea of whether different sets of numbers are closed under certain operations. The writing team selected content familiar to the students in this unit to build student confidence and to acclimate students to the course's intended approach to instruction.	<b>Resources:</b> SREB Math Ready Book
Weeks 6-9	<b>Unit 2: Equations</b> - The equations unit calls for students to construct and evaluate problems that involve one or two steps while seeking understanding of how and why equations and inequalities are used in their daily lives. Students are also asked to use the structure of word problems and equations to rewrite and solve equations in different forms revealing different relationships.	<b>Resources:</b> SREB Math Ready Book

### TERM 2

Term 2 Dates	MS College and Career Readiness Standards	Core Academic Vocabulary/Resources
Weeks 10-14	<b>Unit 3: Measurement and Proportional Reasoning</b> - This unit deals with unit conversions, using proportions for scaling, and area and volume. It requires higher-order thinking and number sense in order to get to the true intent of the standards covered. It is useful in helping students make connections with math and science or other subjects.	<b>Resources:</b> SREB Math Ready Book
Weeks 15-18	<b>Unit 4: Linear Functions</b> - This unit takes students back to the foundation of all high school mathematics—an in-depth study of linear functions. Along with allowing students to differentiate between relations that are functions and those that are not, the unit helps students specifically examine characteristics of linear functions. By looking closely at linear functions in multiple forms, students are expected to graph and write equations, as well as interpret their meaning in context of the slope and y-intercept. Students	<b>Resources:</b> SREB Math Ready Book

	conclude with a project allowing them to collect their own data and write a line of best fit from that data.	
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## TERM 3

Term 1 Dates	MS College and Career Readiness Standards	Core Academic Vocabulary/Resources
Weeks 19-23	<b>Unit 5: Linear Systems of Equations</b> - The systems unit deals with solving systems of linear equations. This involves helping students classify solutions (one, none or infinitely many), as well as set up and solve problems using systems of equations. This unit also asks students to choose the best way to solve a system of equations and be able to explain their solutions.	<b>Resources:</b> SREB Math Ready Book
Weeks 24-27	<b>Unit 6: Quadratic Functions</b> - Unit 6 is an expansive look at quadratic functions: their graphs, tables and algebraic functions. It stresses multiple approaches to graphing, solving and understanding quadratics, as students explore, make conjectures and draw conclusions in group work settings. In this unit, students explore and learn from multiple applications of quadratics. The unit assumes students have seen quadratics before but may not have a concrete, transferrable understanding of quadratic functions. The unit does not cover algebraic manipulations (multiplying and factoring), as these are in earlier units.	<b>Resources:</b> SREB Math Ready Book

## TERM 4

Term 1 Dates	MS College and Career Readiness Standards	Core Academic Vocabulary/Resources
Weeks 28-32	<b>Unit 7: Exponential Functions</b> - This unit develops students' fluency in exponential functions through varying real-life financial applications/inquiries. The unit builds student understanding of these higher level functions and gives them the opportunity to reflect upon the ramifications of their future financial choices.	<b>Resources:</b> SREB Math Ready Book
Weeks 33-36	<b>Unit 8: Summarizing and Interpreting Statistical Data</b> - In this unit students further develop skills to read, analyze, and communicate (using words, tables, and graphs) relationships and patterns found in data sets of one or more variables. Learning how to choose the appropriate statistical tools and measurements to assist in the analysis, being able to clearly communicate results either in words, graphs, or tables, and being able to read and interpret graphs, measurements, and formulas are crucial skills to have in a world overflowing with data. Students explore these concepts while modeling real contexts based on data they collect.	<b>Resources:</b> SREB Math Ready Book