The mission of Hermon High School is to prepare students for personal success in college, career, and community.

Pre-Algebra Explorations

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This course provides students with the foundation to continue on to additional mathematics courses. This year begins learning basic concepts and skills, giving students the foundation to move toward higher level thinking. Algebra I Part 1 focuses on the first half of the general education Algebra I Curriculum. The class moves at a slower pace to ensure student understanding and giving students the opportunity to get additional help when needed. Success in this course will better prepare students to reach more advanced topics in their high school math careers. Algebra I Part 1 requires continual effort and attention. Expectations are for students to do their best everyday. It is very important that students seek help when they are feeling confused, lost, or overwhelmed. We want students to experience success in mathematics and feel confident in their abilities.

Graduation Standards

Standard 1 – Reason and model quantitatively, using units and number systems to solve problems.

Standard 2 – Interpret, represent, create and solve algebraic expressions.

Standard 3 – Interpret, analyze, construct, and solve linear, quadratic, and trigonometric functions.

Unit 1	**Expressions, Equations, and Functions**
Summary	Students will review previous courses and refresh and reinforce prerequisite skills. They will learn to represent mathematical ideas and how they can be expressed. Students will use variables to represent data and learn to write expressions and equations. They will evaluate and simplify expressions using properties of real numbers and absolute value. Students will define a function and function notation as well as identify common algebraic functions based on their graphs and general equations. They will determine a function's domain and range, increasing/decreasing intervals, relative maxima and end behavior. Students will understand the basic properties of linear, quadratic, and exponential functions, and be able to identify each type graphically.
Performance Indicators Assessed in Unit	**S1: B.** Use the properties of rational and irrational numbers. (N.RN.B) **S1: H.** Understand solving equations as a process of reasoning and explain the reasoning. (A.REI.A) **S1: F.** Compute within the real number system. **S2: A.** Interpret the structure of expressions. (A.SSE.A) **S2: K.** Represent and solve equations and inequalities graphically. (A.REI.D) **S3: A.** Understand the concept of a function and use function notation. (F.IF.A) **S3: B.** Interpret functions that arise in applications in terms of the context. (F.IF.B) **S3: C.** Analyze functions using different representations. (F.IF.C.7A-C,E,8-9) **S3: D**. Build a function that models a relationship between two quantities. (F.BF.A.1A-B,2) **S3: F.** Construct and compare linear, quadratic, and exponential models and solve problems. (F.LE.A)
Unit 2	**Linear Equations**
Summary	Students will develop the properties of solving equations. They will apply the Addition, Subtraction, Multiplication, and Division properties of equations to solve problems, and can graph their solutions on a number line. Students will be able to apply equations in one variable to real-world problems. Students will also be able to use units to understand problems, and define appropriate quantities with appropriate accuracy.

Performance Indicators Assessed in Unit	**S2: A.** Interpret the structure of expressions. (A.SSE.A) **S2: H.** Understand solving equations as a process of reasoning and explain the reasoning. (A.REI.A) **S2: I.** Solve equations and inequalities in one variable. (A.REI.B)
Unit 3	**Linear Functions**
Summary	Students will identify and interpret key features of linear function in all their forms. They will graph linear functions in their different forms. Students will also create and analyze linear functions that model real-world data.
Performance Indicators Assessed in Unit	**S2: K.** Represent and solve equations and inequalities graphically. (A.REI.D) **S3: A.** Understand the concept of a function and use function notation. (F.IF.A) **S3: B.** Interpret functions that arise in applications in terms of the context. (F.IF.B) **S3: C.** Analyze functions using different representations. (F.IF.C.7A-C,E,8-9) **S3: D**. Build a function that models a relationship between two quantities. (F.BF.A.1A-B,2) **S3: F.** Construct and compare linear, quadratic, and exponential models and solve problems. (F.LE.A) **S3: G.** Interpret expressions for functions in terms of the situation they model. (F.LE.B)
Unit 4	**Graphing Linear Equations**
Summary	Students will be able to identify different forms, and change between all forms of linear equations. They will be able to calculate slope algebraically and relate it to real-world situations. They will be able to create inverse linear functions both algebraically and graphically. They will be able to compare and contrast a linear relationship represented graphically and algebraically.
Performance Indicators Assessed in Unit	**S2: B.** Write expressions in equivalent forms to solve problems. (A.SSE.B) **S3: C.** Analyze functions using different representations. (F.IF.C.7A-C,E,8-9) **S3: E**. Build new functions from existing functions. (F.BF.B.3,4A)

Summative Assessments Retake

- Students have the opportunity to retake summative assessments.
- The student must submit a retake form to the teacher within five (5) school days of the date that the summative assessment score is reported to the student.
- The highest score a student can receive on a retake or late assessment is a 75.
- The score achieved on a retake will replace the current score (even if the score is lower).
- If a student is making up a test from an absence, that assessment will be graded up to 100.

Make-up Work

Upon their return to school from an absence, it is the student's responsibility to secure make-up work from their teacher. The due date of the missed work will be one additional class period for each day of absence from that class or at the discretion of the teacher.

Grading of Formative Assessments

- Formative assessments will count as 30% of the grade.
- Formative assessments may be scored on either a 0-100 scale or a 0-4 scale.
- The 0-4 scale will be represented in Power School as 4=100, 3=87, 2=77, and 1=67.
- The method of scoring of formative assessments will be determined by assignment.