

Algebra I: Turner, 2018-2019

Month(s)	Topic/Theme/Chapter/Unit	Essential Questions	Common Core and/or State Standard	SLE	Assessments (Formative & Summative - Varying Types)
First Trimester: Sept-Oct	<p>Seeing Structures in Expressions</p> <p>Algebra 1: Chapter 1 Chapter 2 Teacher Resources</p> <p>Using variables, order of operations, real numbers, introduction to functions, rational number operations, distributive property.</p>	<p>How does an expression relate to a phrase?</p> <p>Why is it important to know the different types of numbers?</p> <p>How can we reverse the distributive property?</p>	<p><u>CCSS.MATH.CONTENT.HSA.SSE.A.1</u></p> <p><u>CCSS.MATH.CONTENT.HSA.SSE.A.1.A</u></p> <p><u>CCSS.MATH.CONTENT.HSA.SSE.A.1.B</u></p> <p><u>CCSS.MATH.CONTENT.HSA.SSE.A.2</u></p>	<p>Ask questions and explore new learning opportunities</p> <p>Listen attentively and communicate ideas clearly</p> <p>Use technology responsibly and effectively</p>	<p>Formative Assessment Quiz on Chapter 1</p> <p>Informal formative assessment on Matrices using Caesar Cipher</p> <p>Formal Summative Assessment (Test) on Chapters 1 and 2</p> <p>Informal formative exit tickets and cooperative group work throughout section</p>
First Trimester: Oct-Dec	<p>Reasoning with Equations and Inequalities</p> <p>Algebra 1: Chapter 3 Chapter 4 Teacher Resources</p> <p>Solving equations in one variable, solving proportions, Pythagorean Theorem, solving inequalities in one variable, graphing inequalities.</p>	<p>How does an equation relate to a sentence?</p> <p>What is the goal in solving an equation?</p> <p>What is the difference between a theorem and an equation?</p> <p>How can we make a theorem?</p>	<p><u>CCSS.MATH.CONTENT.HSA.REI.A.1</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.A.2</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.B.3</u></p>	<p>Develop effective and responsible study habits</p> <p>Practice problem solving and critical thinking</p>	<p>Formative Assessment Quiz midway through Ch 3</p> <p>Formal Summative Assessment (Test) on Chapter 3</p> <p>Formal Summative Assessment (Test) on Chapter 4</p> <p>Informal formative exit tickets, cooperative group work throughout section</p>
2nd Trimester: Dec-Mar	<p>Creating equations/Reasoning with Equations and Inequalities</p> <p>Algebra 1: Chapter 5 Chapter 6 Chapter 7</p>	<p>What real-world metaphor can we use for a function?</p> <p>How does slope relate to an equation?</p> <p>How can we solve an</p>	<p><u>CCSS.MATH.CONTENT.HSA.CED.A.1</u></p> <p><u>CCSS.MATH.CONTENT.HSA.CED.A.2</u></p> <p><u>CCSS.MATH.CONTENT.HSA.CED.A.3</u></p>	<p>Ask questions and explore new learning opportunities</p> <p>Collaborate and engage with others</p>	<p>Informal formative assessment graphing linear equations</p> <p>Formative Assessment Quiz on Chapter 5</p> <p>Formal Summative Assessment (Test)</p>

	<p>Chapter 8 (if time permits) Teacher Resources</p> <p>Writing function rules and tables, graphing linear equations, solving systems of equations and inequalities, simplifying an exponential expression.</p>	<p>equation with more than one variable?</p> <p>When can we use multiple variables to solve real-world problems?</p> <p>Why are some functions curved? Can they be curved?</p>	<p><u>CCSS.MATH.CONTENT.HSA.CED.A.4</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.C.5</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.C.6</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.D.10</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.D.11</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.D.12</u></p>	<p>respectfully</p> <p>Practice problem solving and critical thinking</p>	<p>on Chapter 6</p> <p>Formal formative assessment on slope/graphing: Water Park Project</p> <p>Formal Summative Assessment (Test) on Chapter 7</p> <p>Formative Assessment Quiz on Chapter 8</p> <p>Informal formative exit tickets, cooperative group work throughout section</p>
<p>Third Trimester: Apr</p>	<p>Arithmetic with Polynomials and Rational Expressions</p> <p>Algebra 1: Chapter 9 Teacher Resources</p> <p>Adding and subtracting polynomials, multiplying binomials, factoring trinomials, factoring by grouping.</p>	<p>How does changing an equation's form help us to solve an equation?</p> <p>What are the different types of polynomials?</p>	<p><u>CCSS.MATH.CONTENT.HSA.APR.A.1</u></p> <p><u>CCSS.MATH.CONTENT.HSA.APR.B.3</u></p>	<p>Listen attentively and communicate ideas clearly</p> <p>Strive to do our best</p>	<p>Formal Summative Assessment (Test) on Chapter 9</p> <p>Informal formative exit tickets, cooperative group work throughout section</p>
<p>Third Trimester: Apr-May</p>	<p>Reasoning with Equations and Inequalities</p> <p>Algebra 1: Chapter 10 Chapter 11 Chapter 12 (if time permits) Teacher Resources</p> <p>Graphing quadratic equations,</p>	<p>What is the shape of a quadratic function?</p> <p>How can we visually show completing the square?</p> <p>How can we have an imaginary number and still use it in equations?</p>	<p><u>CCSS.MATH.CONTENT.HSA.REI.A.2</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.B.4</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.B.4.A</u></p> <p><u>CCSS.MATH.CONTENT.HSA.REI.B.4.B</u></p>	<p>Develop effective and responsible study habits</p> <p>Practice problem solving and critical thinking</p>	<p>Formative Assessment Quiz on Chapter 10</p> <p>End of the year summative assessment that will cover the majority of topics</p> <p>Informal formative exit tickets, cooperative group work throughout section</p>

	solving quadratic equations using factoring, completing the square, and quadratic formula. Solving radical equations, adding, subtracting, multiplying and dividing rational equations, solving rational equations.		CCSS.MATH.CONTENT.HSA.REI.C.7 CCSS.MATH.CONTENT.HSA.APR.B.2 CCSS.MATH.CONTENT.HSA.APR.C.4		
Third Trimester: June	Probability and Statistics Algebra 1: Various Chapters/Lessons Teacher Resources Mean, median, mode, theoretical and experimental probability, probability of compound events, scatter plots, counting methods and permutations, combinations.		CCSS.MATH.CONTENT.HSS.ID.A.2 CCSS.MATH.CONTENT.HSS.ID.A.3 CCSS.MATH.CONTENT.HSS.IC.B.3 CCSS.MATH.CONTENT.HSS.CP.A.2	Collaborate and engage with others respectfully Use technology effectively and responsibly	Cooperative/Independent Statistics/Probability Project

Two Types of Assessment:

Formative Assessment occurs in the short term, as learners are in the process of making meaning of new content and of integrating it into what they already know. Feedback to the learner is immediate (or nearly so), to enable the learner to change his/her behavior and understandings right away. Formative Assessment also enables the teacher to "turn on a dime" and rethink instructional strategies, activities, and content based on student understanding and performance. Formative Assessment can be as informal as observing the learner's work or as formal as a written test. Formative Assessment is the most powerful type of assessment for improving student understanding and performance.

Examples: a very interactive class discussion; a warm-up, closure, or exit slip; a on-the-spot performance; a quiz.

Summative Assessment takes place at the end of a large chunk of learning, with the results being primarily for the teacher's or school's use. Results may take time to be returned to the student/parent, feedback to the student is usually very limited, and the student usually has no opportunity to be reassessed. Thus, Summative Assessment tends to have the least impact on improving an individual student's understanding or performance. Students/parents can use the results of Summative Assessments to see where the student's performance lies compared to either a standard (MEAP/MME) or to a group of students (usually a grade-level group, such as all 6th graders nationally, such as Iowa Tests or ACT). Teachers/schools can use these assessments to identify strengths and weaknesses of curriculum and instruction, with improvements affecting the next year's/terms students.

Examples: End of unit exams, major cumulative projects, research projects, and performances/presentations