

HPISD Curriculum: Algebra I								
Title		Estimated Duration	6 Weeks					
Unit 1: Preparing for Algebra		2 weeks	1	2	3	4	5	6
Unit Overview								
The student will learn about the real number system. They will classify real numbers, compare and order integers and rational numbers, perform basic operations, apply properties to evaluate and simplify expressions, and use the Distributive Property to write equivalent expressions.								
Enduring Understandings								
The student will understand that:		<ul style="list-style-type: none"> • The real number system includes rational numbers, integers, and whole numbers. • The basic operations of addition, subtraction, multiplication and division hold over the set of real numbers. • The commutative, associative, identity and inverse properties can be applied to simplify and evaluate expressions. • Problems can be solved by applying the distributive property and combining like terms. 						
Concepts	Guiding/Essential Questions							
<ul style="list-style-type: none"> • number • properties 	<ul style="list-style-type: none"> • What is the difference between rational and irrational numbers? • How do you compare positive and negative numbers? • What are integers? • What is the difference between rational and irrational numbers? • What is the commutative property? • What is the associative property? • What is the symmetric property? • What is the reflexive property? • What is the transitive property? • What is the identity property? • For which operations does the commutative and associative property hold? • Are there any operations for which the transitive property does not hold? • How do you add positive and negative numbers? • How do you subtract real numbers? • How do you multiply real numbers? • How do you divide real numbers? • What are the rules for dividing integers? fractions? • What is division by zero? 							

	<ul style="list-style-type: none"> • What is the distributive property? • How are like terms identified? • How do you use the distributive property to simplify expressions?
<p>Learning Targets</p>	
<p>The student will be able to describe and use properties of real numbers to solve problems.</p>	
<p>Formative Assessments</p>	<p>Summative Assessments</p>
<p>homework, quizzes</p>	<p>test</p>
<p>TEKS: Readiness Standards</p>	<p>TEKS: Related Supporting Standards</p>
	<p>A.10 (D) rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property.</p> <p>A.11 (A) simplify numerical radical expressions involving square roots.</p>
<p>TEKS: Basic Understandings</p>	
<p>(A.10) Number and algebraic methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms and perform operations on polynomial expressions.</p> <p>(A.11) Number and algebraic methods. The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms.</p>	

Processes and Skills: What students should be able to DO		Facts: What students should KNOW	
<ul style="list-style-type: none"> • Distinguish between whole numbers, integers, and rational numbers • Apply understanding opposite values, absolute values, and multiplicative inverses • Add, subtract, multiply, and divide real numbers • Use the commutative, associative, identity, inverse, and distributive properties • Understand and be able to combine like terms 		<ul style="list-style-type: none"> • The real number system consists of rational and irrational numbers. • A rational number is any number that can be expressed as a fraction a/b of two integers, where b is not zero. • An irrational number cannot be expressed as a fraction a/b of two integers, where b is not zero • Integers are whole numbers and their opposites. • Various properties of real numbers • Problems can be solved by applying the distributive property and combining like terms 	
Topics			
real number system		properties of real numbers	combining like terms
Language of Instruction			
whole numbers	reciprocal		regroup
Integers	mean		simplify
rational number	commutative		equivalent expression
opposites	associative		distributive property
absolute value	Distributive Identity		term
additive identity	symmetric		coefficient
additive inverse	reflexive		constant term
opposites	transitive		like terms
multiplicative identity			
State Assessment Connections		National Assessment Connections	
Resources			
McGraw-Hill Algebra 1 (Chapter 0 and Chapter 1) Teacher-made supplementary materials			