Module 4: Expressions and Equations
(Trimester 3: 45 Days)

Topic A	Relationships of the Operations		**6.EE.3**
Topic B	Special Notations of Operations		**6.EE.1 6.EE.2**
ASSESSMENT	6.EE.1	Reporting Strand: Creates algebraic expressions and solves equations and inequalities	Report Card: 0-4
Topic C	Replacing Letters and Numbers		**6.EE.2 6.EE.4**
Topic D	Expanding, Factoring, and Distributing Expressions		**6.EE.2 6.EE.3 6.EE.4**
ASSESSMENT	6.EE.3, 4	Reporting Strand: Creates algebraic expressions and solves equations and inequalities	Report Card: 0-4
Topic E	Expressing Operations in Algebraic Form		**6.EE.2**
Topic F	Writing and Evaluating Expressions and Formulas		**6.EE.2 6.EE.6**
ASSESSMENT	6.EE.2	Reporting Strand: Creates algebraic expressions and solves equations and inequalities	Report Card: 0-4
Topic G	Solving Equations		**6.EE.5 6.EE.6 6.EE.7**
Topic H	Applications of Equations		**6.EE.5 6.EE.6 6.EE.7 6.EE.8 6.EE.9**
ASSESSMENT	6.EE.5 6.EE.6, 7 6.EE.8 6.EE.9	Reporting Strand: Creates algebraic expressions and solves equations and inequalities	Report Card: 0-4

6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents.

6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers.
a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.*
b. Identify parts of an expression using mathematical terms (sum, term, product, factor quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*
c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

6.EE.A.3 Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*

6.EE.A.4 Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*

6.EE.B.5 Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.

6.EE.B.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

6.EE.B.7 Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q, and x are all nonnegative rational numbers.

6.EE.B.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

6.EE.C.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

Reporting Strand: Creates algebraic expressions and solves equations and inequalities

CCSS	4 – Mastery	3- Proficient	2 – Basic	1 – Below Basic	0 – No Evidence
6.EE.1	Can extend thinking beyond the standard, including tasks that may involve one of the following: • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving	Write **and** evaluate numerical expressions involving whole-number exponents in the same problem.	**Evaluate** a given numerical expressions involving whole-number exponents.	**Write** numerical expressions involving whole-number exponents.	Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1
6.EE.3, 6.EE.4		Identify when two expressions with variables are equivalent and apply properties of operations to create equivalent expressions with variables using **all** of the following properties: • Associative (combine like terms) • Commutative • Distributive	Identify when two expressions with variables are equivalent and apply properties of operations to create equivalent expressions with variables, using **2** of the following properties: • Associative (combine like terms) • Commutative • Distributive	Identify when two expressions with variables are equivalent and apply properties of operations to create equivalent expressions with variables, using **1** of the following properties: • Associative (combine like terms) • Commutative • Distributive	
6.EE.2		Write expressions with operation(s) that involve numbers and variables Identify the parts of expressions using the following • Sum • Term • Product • Factor • Quotient • Coefficient **and view one or more parts of an expression as a single entity** Evaluate expressions and formulas **used in real-world problems**, that include problems with variables and exponents.	Write expressions with operation(s) that involve numbers **and variables** Identify the parts of expressions using the following • Sum • Term • Product • Factor • Quotient • **Coefficient** Evaluate expressions and formulas, that include problems with variables **and exponents**.	Write expressions with operation(s) that involve numbers Identify the parts of expressions using the following • Sum • Term • Product • Factor • Quotient Evaluate expressions and formulas, that include problems with variables.	
6.EE.5		Given **a set of values**, use substitution to determine which values make an equation and inequality true.	Given a single value, use substitution to determine if it makes an equation **and inequality true**.	Given a single value, use substitution to determine if it makes an **equation** true.	
6.EE.6 **6.EE.7**		Use variables to represent numbers and write expressions when **solving real world problems.** **Solve real-world problems** by writing and solving one-step addition and multiplication equations involving positive rational numbers.	**Use variables to represent numbers and write** expressions when solving mathematical problems. Solve mathematical problems by writing and solving one-step addition **and multiplication** equations involving positive rational numbers.	**Use an understanding of variables to identify** expressions that match a given mathematical or real world problem Solve mathematical problems by writing and solving one-step addition equations involving positive rational numbers.	

CCSS	4 – Mastery	3- Proficient	2 – Basic	1 – Below Basic	0 – No Evidence
6.EE.8	Can extend thinking beyond the standard, including tasks that may involve one of the following: • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving	Write an inequality (with the variable on the left of the inequality) to represent a constraint or condition in a real-world problem **and represent solutions to an inequality on a number line.**	Write an inequality (with the variable on the left of the inequality) **to represent a constraint or condition in a real-world problem**	Write an inequality (with the variable on the left of the inequality) to represent a mathematical problem.	Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1
6.EE.9 .		Identify independent and dependent variables from a real-world problem and use them to write an equation Use tables **and** graphs to show a relationship between dependent and independent variables and explain how they are related to the equation	Identify independent and dependent variables from a real-world problem and use them to write an equation Use tables **or** graphs to show a relationship between dependent and independent variables and **explain how they are related to the equation**	**Identify** independent and dependent variables from a real-world problem and use them to **write an equation**	

Crea expresiones algebraicas y resuelve ecuaciones y desigualdades

CCSS	4 – Dominio	3- Apto	2 – Básico	1 – Por debajo de lo Básico	0 – No hay Evidencia
6.EE.1	Puede pensar más allá del estándar, incluyendo tareas que puedan involucrar uno de los siguientes aspectos: • Diseñar • Conectar • Sintetizar • Aplicar • Justificar • Criticar • Analizar • Crear • Demostrar	Escriben **y** evalúan expresiones numéricas relacionadas a los exponentes de números enteros.	**Evalúan** una expresión numérica dada relacionadas a los exponentes de números enteros.	**Escriben** una expresión numérica dada relacionadas a los exponentes de números enteros	Hay poca evidencia de razonamiento o aplicación para resolver el problema No reúne los criterios del nivel 1
6.EE.3, 6.EE.4		Identifican y general expresiones equivalentes con variables , usando **todas las siguientes** propiedades de las operaciones • Asociativa (combiner términos iguales) • Conmutativa • Distributiva	Identifican y general expresiones equivalentes con variables , usando **dos de las siguientes** propiedades de las operaciones • Asociativa (combiner términos iguales) • Conmutativa • Distributiva	Identifican y general expresiones equivalentes con variables , usando **una de las siguientes** propiedades de las operaciones • Asociativa (combiner términos iguales) • Conmutativa • Distributiva	
6.EE.2		Escriben expresiones con operaciones que contenga números y variables. Identifican las partes de expresiónes usando lo siguiente • Suma • Término • Producto • Factor • Cociente • Coeficiente Y ve una o mas partes de una expresión como una sola entidad. Evalúan expresiones **y fórmulas en el contexto de problemas del mundo real**, que incluyen problemas con variables y exponentes.	Escriben expresiones con operaciones que contenga números **y variables**. Identifican las partes de expresiónes usando lo siguiente • Suma • Término • Producto • Factor • Cociente • **Coeficiente** Evalúan expresiones y fórmulas que incluyen problemas con variables **y exponentes**.	Escriben expresiones con operaciones que contenga números. Identifican las partes de expresiónes usando lo siguiente • Suma • Término • Producto • Factor • Cociente Evalúan expresiones y fórmulas que incluyen problemas con variables.	

CCSS	4 – Dominio	3- Apto	2 – Básico	1 – Por debajo de lo Básico	0 – No hay Evidencia
6.EE.5	Puede pensar más allá del estándar, incluyendo tareas que puedan involucrar uno de los siguientes aspectos: • Diseñar • Conectar • Sintetizar • Aplicar • Justificar • Criticar • Analizar • Crear • Demostrar	Dado un **conjunto de valores**, usan la sustitución para determinar qué valores, **si hay alguno**, hacen una ecuación y una desigualdad verdadera.	Dado un solo valor, usan la sustitución para determinar si hacen una ecuación y una d**esigualdad** verdadera.	Dado un **solo valor**, usan la sustitución para determinar si hacen una ecuación verdadera	Hay poca evidencia de razonamiento o aplicación para resolver el problema No reúne los criterios del nivel 1
6.EE.6 **6.EE.7**		Use variables para representar números y escribe expresiones cuando **resuelva problemas del mundo real**. Escribe y **resuelve problemas del mundo real** usando ecuaciones de un paso por sumar y multiplicar ecuaciones con números racionales positivos.	Use variables para representar números y escribe expresiones cuando **resuelva problemas matemáticos**. Escribe y resuelve problemas matemáticos usando ecuaciones de un paso por sumar **y multiplicar** ecuaciones con números racionales positivos.	Use un entendimiento de variables para identificar expresiones que coincide a una dada problema matemático o del mundo real. Escribe y resuelve problemas matemáticos usando ecuaciones de un paso con números racionales positivos.	
6.EE.8		Escribe una desigualdad (con la variable a la izquierda de la desigualdad) para representar un problema del mundo real **y representa soluciones a la desigualdad en una recta numérica.**	Escribe una desigualdad (con la variable a la izquierda de la desigualdad) **para representar un problema del mundo real**	Escribe una desigualdad (con la variable a la izquierda de la desigualdad) para representar un problema matemático.	
6.EE.9 .		Indentifica variables independientes y dependientes de un problema del mundo real y escribe una ecuación. Usa tablas **y** gráficas para mostrar la relación entre variables dependientes e independientes y explica cómo se relacionan con la ecuación.	Indentifica variables independientes y dependientes de un problema del mundo real y escribe una ecuación. Usa tablas **o** gráficas para mostrar la relación entre variables dependientes e independientes **y explica cómo se relacionan con la ecuación**.	**Indentifica** variables independientes y dependientes de un problema del mundo real y **escribe una ecuación**.	