

Any standard **highlighted in yellow** has been determined by our WCSD teachers, district and state experts as essential for students to master.

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| Strand: Apply and extend previous understandings of arithmetic to algebraic expressions. (6.EE.1-4) | | | |
| Strand: Reason about and solve one-variable equations and inequalities. (6.EE.5-8) | | | |
| Strand: Represent and analyze quantitative relationships between dependent and independent variables. (6.EE.9) | | | |
| Standard 6.EE.1: I can write and evaluate numerical expressions involving whole number exponents. | | | |
| <p>Learning Targets</p> <ul style="list-style-type: none"> Understand the meaning of exponents and exponential notation. Use manipulative to show square numbers Use multiple representations that illustrate geometric dimension/collections. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> base number, expressions, exponents, power, superscripted numbers, \wedge (carat) | <p>Question Stems</p> <ul style="list-style-type: none"> Find the value of an expression using exponential notation. What are the strengths/weaknesses of using exponential notation? | <p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFA Expressions/Equations</u> |
| Standard 6.EE.2: I can write, read, and evaluate expressions in which letters stand for numbers. I can evaluate expressions for specific values or variables. | | | |
| <p>Learning Targets</p> <ul style="list-style-type: none"> Recognize that variables represent unknown quantities. Understand that using standard formulas can show relationships with whole numbers. Evaluate expressions at specific values of their variables. Use order of operations | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> expression, equations, formula, order of operations, superscripted numbers, variable, \wedge (carat) | <p>Question Stems</p> <ul style="list-style-type: none"> Draw a diagram of a triangle with the area of 48cm². Justify why the base and height are what they are (can use formulas) Can you use different numbers? Why or why not? | <p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFA Expressions/Equations</u> |

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| Standard 6.EE.3 I can apply the properties of operations to generate equivalent expressions. | | | |
| <p>Learning Targets</p> <ul style="list-style-type: none"> Apply the properties of operations with expressions involving variables to generate equivalent expressions. Make connections between prior knowledge with numbers to variables. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> Associative Property of addition and multiplication, Commutative Property of addition and multiplication, Identity Property of addition and multiplication, Distributive Property of multiplication over addition/subtraction, Identify element | <p>Question Stems</p> <ul style="list-style-type: none"> How did you solve the problem? Explain the similarities and differences for the math properties. | <p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFA Expressions/Equations</u> |
| Standard 6.EE.4: I can identify when two expressions are equivalent. | | | |
| <p>Learning Targets</p> <ul style="list-style-type: none"> Recognize equivalent expressions and substitute values to prove equivalency Model equivalent expressions with manipulatives, diagrams, or story context Use substitution to verify that both expressions are equivalent. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> equation, equivalent, expression, variable, = | <p>Question Stems</p> <ul style="list-style-type: none"> What mathematics were you investigating? What questions arose as you worked? A question I had was..... | <p>Possible Assessments</p> <ul style="list-style-type: none"> <u>District CFA Expressions/Equations</u> |

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Standard 6.EE.5: I can understand solving an equation or inequality as a process of answering a question.

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| <p>Learning Targets</p> <ul style="list-style-type: none"> Understand the differences between equations and inequalities. Know that inequalities represent a range of possible values rather than a single solution. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> equality, inequality, solution, substitution, $<$, $>$, \leq, \geq | <p>Question Stems</p> <ul style="list-style-type: none"> How else could you have....? How are these the same? Different? | <p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Expressions/Equations |
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Standard 6.EE.6: I can use variables to represent numbers and write expressions when solving a real-world or mathematical problem. I can understand that a variable can represent an unknown number or any number in a specified set.

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| <p>Learning Targets</p> <ul style="list-style-type: none"> Recognize real-world mathematical problems can be expressed using a variable to represent an unknown. Write and solve an expression that represents a real-world problem using variables. Use variables to represent numbers or sets of numbers when solving a problem. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> constant, coefficient, solution, $<$, $>$, \leq, \geq | <p>Question Stems</p> <ul style="list-style-type: none"> I did something like this before when.... My strategy was successful because... | <p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Expressions/Equations |
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Standard 6.EE.7: I can solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ (non-negative rational numbers).

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| <p>Learning Targets</p> <ul style="list-style-type: none"> Solve one-step equations using all four operations with non-negative rational numbers. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> balance, equation | <p>Question Stems</p> <ul style="list-style-type: none"> What changes did you have to make to solve the problems? My strategy was successful because..... | <p>Possible Assessments</p> <ul style="list-style-type: none"> District CFA Expressions/Equations |
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Standard 6.EE.8: I can write an inequality of the form $x > c$ or $x < c$ to represent a condition in a real-world mathematical problem and recognize that inequalities have infinitely many solutions.

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| <p>Learning Targets</p> <ul style="list-style-type: none"> • Represent inequalities on a number line. • Write an inequality that represents real-world mathematical problems containing a constraint or a condition (<, >) • Recognize that infinity refers to a set of numbers that has no end, but may not include all numbers. • Recognize that a variable can stand for an infinite number of solutions when used in inequalities. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> • inequality, infinite, greater than, less than, >, < | <p>Question Stems</p> <ul style="list-style-type: none"> • | <p>Possible Assessments</p> <ul style="list-style-type: none"> • <u>District CFA Expressions/Equations</u> |
| Standard 6.EE.9: I can use variables to represent two quantities in real-world problems and write an equation to express dependent and independent quantities. | | | |
| <p>Learning Targets</p> <ul style="list-style-type: none"> • Analyze relationship between the dependent and independent variables using graphs and tables. • Recognize that a change in the independent variable creates a change in the dependent variable. | <p>Academic Vocabulary & Notation</p> <ul style="list-style-type: none"> • graph, table equation, variable, independent variable, dependent variable, equivalent | <p>Question Stems</p> <ul style="list-style-type: none"> • How can a table or graph help show the relationship? • What are some other ways to show the relationship changes between x and y? | <p>Possible Assessments</p> <ul style="list-style-type: none"> • <u>District CFA Expressions/Equations</u> |

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