WESTBROOK SCHOOL DEPARTMENT

Curriculum

Content Area:	MATHEMATICS	Grade Level:	8
MLR Content Standard:	**A. Number:** Students use numbers in everyday and mathematical contexts to quantify or describe phenomena, develop concepts of operations with different types of numbers, use the structure and properties of numbers with operations to solve problems, and perform mathematical computations. Students develop number sense related to magnitude, estimation, and the effects of mathematical operations on different types of numbers.		
MLR Performance Indicators	WSD Benchmarks	Instruction Level*	Common Assessment
Instruction Levels: I = Introduced; R = Reinforced; E = Evaluated through a Documented Classroom Activity; D = District Common Assessment			
A	Know basic math facts up to 12	RE	
A	Use ratios to form proportions and solve problems using rates and unit rates	RE	
A	Solve for part, whole and percent in problems using equations and/or proportions	RE	
A1	Convert between scientific notation and standard form, and compare the relative size of numbers	RE	
A1	Use positive and negative integer exponents for powers of ten	RE	
A2	Estimate the value of the square roots of whole numbers and place them on a number line	IR	
A2	Identify irrational numbers including *pi* or those arising from square roots	IR	
A2	Define real, rational & irrational numbers	IR	

*Codes indicate the highest instructional level of that grade level and may include an earlier level of instruction.

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MLR Content Standard:	**B. Data:** Students make measurements and collect, display, evaluate, analyze and compute with data to describe phenomena and to make decisions based on data. Students compute statistics to summarize data sets and use concepts of probability to make predictions and describe the uncertainty inherent in data collection and measurement.		

MLR Performance Indicators	WSD Benchmarks	Instruction Level*	Common Assessment
Instruction Levels: I = Introduced; R = Reinforced; E = Evaluated through a Documented Classroom Activity; D = District Common Assessment			
B1	Calculate measures using multiple attributes (i.e. speed as a rate of distance per time)	RE	
B1	Use the distance formula to solve for an unknown component of a measure (distance = rate x time)	RE	
B2	Convert between and among measurement systems for different units in derived measures (example: convert feet per second to miles per hour)	IRE	
B3	Use mean, median, mode, range, and quartiles to solve problems involving raw data and information from data displays	RE	
B4	Use appropriate terminology to describe complementary and mutually exclusive events	RE	
B4	Compute probabilities for compound events, using such methods as organized lists, tree diagrams, and area models	RE	

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Content Area:	**MATHEMATICS**	Grade Level:	**8**
MLR Content Standard:	**C. Geometry:** Students use measurement and observation to describe objects based on their sizes and shapes, construct two- and three-dimensional objects, solve problems involving geometric properties, compute areas and volumes based on object properties and dimensions, and perform transformations on geometric figures.		

MLR Performance Indicators	WSD Benchmarks	Instruction Level*	Common Assessment
Instruction Levels: I = Introduced; R = Reinforced; E = Evaluated through a Documented Classroom Activity; D = District Common Assessment			
C1	Apply the triangle inequality	IRE	
C1	Find the sum of the measures of the interior angles of a polygon	IRE	
C1	Apply the property that the sum of the measures of the exterior angles of a polygon is 360 degrees	IRE	
C2	Identify and use angle properties of parallel lines (cut by a transverasl) to solve problems and determine geometric relationships	RE	
C2	Identify and use properties of angles created by parallel lines and transversals to determine the angle properties of trapezoids and parallelograms, and apply these properties in problem situations	RE	
C3	Identify and use the Pythagorean Theorem	IRE	
C4	Find the volume and surface area of prisms, pyramids, cylinders, and other figures composed of these solids	RE	

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Content Area:	**MATHEMATICS**	Grade Level:	**8**
MLR Content Standard:	**D. Algebra:** Students use symbols to represent quantities, patterns and relationships and use symbolic manipulation to evaluate expressions and solve equations. Students solve problems using symbols, tables, graphs and verbal rules choosing the most effective representation and converting among representations.		

MLR Performance Indicators	WSD Benchmarks	Instruction Level*	Common Assessment
Instruction Levels: I = Introduced; R = Reinforced; E = Evaluated through a Documented Classroom Activity; D = District Common Assessment			
D1	Create, evaluate, and manipulate expressions using real numbers	RE	
D1	Translate English sentences into algebraic expressions and equations	RE	
D2	Recognize and solve any linear equation including the form of $ax + b = cx + d$	IRE	
D2	Use graphs to estimate solutions to equations	RE	
D3	Represent problem situations as inequalities	RE	
D3	Solve and interpret linear inequalities	IRE	
D4	Solve two-step equations using inverse operations	RE	
D4	Recognize that the graph of a linear relationship $y = mx + b$ is a line where the slope is m and the y - intercept is b	IRE	
D4	Apply the basic properties of linear relationships	RE	

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