

# SOL Instruction Tracking Form

## Grade 7 Mathematics

*Place the SOL Instruction Tracking Form after the VGLA Collection of Evidence (COE) Coversheet. Use the SOL Instruction Tracking Form to track the evidence collected for submission.*

<b>7.1 The student will</b>	
	compare
	fractions,
	decimals, and
	percents.
	order
	fractions,
	decimals, and
percents,	
determine equivalent relationships between fractions, decimals, and percents, including scientific notation for numbers greater than 10.	
<b>7.2 The student will simplify expressions that contain rational numbers (whole numbers, fractions, and decimals) and positive exponents, using</b>	
	order of operations,
	mental mathematics, and
	appropriate tools.
<b>7.3 The student will identify and apply the following properties of operations with real numbers:</b>	
a)	the commutative and associative properties for addition and multiplication;
b)	the distributive property;
c)	the additive and multiplicative identity properties;
d)	the additive and multiplicative inverse properties; and
e)	the multiplicative property of zero.
<b>7.4 The student will</b>	
a)	solve practical problems using rational numbers
	whole numbers,
	fractions,
	decimals, and
percents;	
b)	solve consumer-application problems involving
	tips,
	discounts,
	sales tax, and
simple interest.	
<b>7.5 The student will formulate rules for and solve practical problems involving</b>	
	basic operations with integers.
	addition,
	subtraction,
	multiplication, and
division	

<b>7.6 The student will use proportions to solve practical problems, which may include scale drawings, that contain</b>	
	rational numbers
	whole numbers,
	fractions,
	decimals, and
	percents.
<b>7.7 The student, given appropriate dimensions, will</b>	
a)	estimate and find the area of polygons by subdividing them into
	rectangles and
	right triangles; and
b)	apply perimeter and area formulas in practical situations.
<b>7.8 The student will investigate and solve problems involving the volume and surface area of rectangular prisms and cylinders, using</b>	
	concrete materials and
	practical situations to develop formulas.
<b>7.9 The student will</b>	
	compare and contrast the following quadrilaterals:
	parallelogram,
	rectangle,
	square,
	rhombus, and
	trapezoid.
	use deductive reasoning and inference to classify quadrilaterals.
<b>7.10 The student will</b>	
	identify and draw the following polygons:
	pentagon,
	hexagon,
	heptagon,
	octagon,
	nonagon, and
	decagon.
<b>7.11 The student will</b>	
	determine if geometric figures – quadrilaterals and triangles – are similar and
	write proportions to express the relationships between corresponding parts of similar figures.
<b>7.12 The student will</b>	
	identify and graph ordered pairs in the four quadrants of a coordinate plane.
<b>7.13 The student, given a polygon in the coordinate plane, will</b>	
	represent transformations - rotation and translation - by graphing the coordinates of the vertices of the transformed polygon and
	sketching the resulting figure.
<b>7.14 The student will</b>	
	investigate and describe the difference between the probability of an event found through simulation versus the theoretical probability of that same event.
<b>7.15 The student will</b>	
	identify and describe the number of possible arrangements of several objects, using a tree diagram or the Fundamental (Basic) Counting Principle.
<b>7.16 The student will create and solve problems involving</b>	

		the measures of central tendency
		mean,
		median,
		mode, and
		range of a set of data.
<b>7.17 The student, given a problem situation, will collect, analyze, display, and interpret data, using a variety of graphical methods, including</b>		
a)		frequency distributions;
b)		line plots;
c)		histograms;
d)		stem-and-leaf plots;
e)		box-and-whisker plots; and
f)		scattergrams.
<b>7.18 The student will</b>		
		make inference, conjectures, and predictions based on analysis of a set of data.
<b>7.19 The student will represent, analyze, and generalize a variety of patterns, including arithmetic sequences and geometric sequences, with</b>		
		tables,
		graphs,
		rules, and
		words in order to investigate and describe functional relationships.
<b>7.20 The student will</b>		
		write verbal expressions as algebraic expressions and
		write sentences as equations.
<b>7.21 The student will use the following algebraic terms appropriately:</b>		
		<i>equation,</i>
		<i>inequality,</i> and
		<i>expression.</i>
<b>7.22 The student will</b>		
a)		solve one-step linear equations and inequalities in one variable with strategies involving inverse operations and integers, using
		concrete materials,
		pictorial representations, and
		paper and pencil: and
b)		solve practical problems requiring the solution of a one-step linear equation.

Submit Quarterly to the building level administrator/designee for review:

Date Submitted/Initials	Date Submitted/Initials	Date Submitted/Initials	Date Submitted/Initials