## BENCHMARK SEQUENCE REPORT MATHEMATICS GRADE 6 BY QUARTER



This planning tool can be used to sequence the teaching and assessing of the OCS Benchmarks. Benchmarks should be assessed formatively in multiple ways and over multiple times to guide reteaching/relearning. Benchmarks that are assessed summatively should be sequenced throughout the school year to determine student mastery.

Qua	rter 1	Quarte	r 2	Qua	rter 3	Qua	rter 4		OCS Benchmarks
Taught	Assessed	Taught	Assessed	Taught	Assessed	Taught	Assessed	OCS Codes	Benchmarks
		•	•			DOMA	IN: Stand	dards for Mathe	matical Content
						S	trand: Ratios	and Proportional Rela	ationships (RP)
SMC.RP.1	Understand r	atio concepts a	nd use rati	o reasoning	to solve prob				· · · · · · · · ·
Jivic.iti 11	- Onderstand I	atio concepts a	ina ase rati	o reasoning	to solve proc	icinis.		T	T
								6.SMC.RP.1.1.a	Use ratio language to describe a ratio relationship between two quantities
								6.SMC.RP.1.2-1.a	Compare a unit rate a/b with a ratio a:b with b ≠ 0
								6.SMC.RP.1.2-2.a	Use rate language in the context of a ratio relationship
								C CN4C DD 4 3 4 b	Mala de la companya del companya de la companya de la companya del companya de la companya del companya de la companya de la companya de la companya de la companya del companya de la com
								6.SMC.RP.1.3-1.b	Make tables of equivalent ratios relating quantities with whole number measurements
								C SMC DD 1 2 2 h	Find missing values in a table of equivalent ratios relating quantities with whole number measurements
								6.SMC.RP.1.3-2.b 6.SMC.RP.1.3-3.b	Plot pairs of values of equivalent ratios on the coordinate plane
								6.SMC.RP.1.3-4.b	Compare equivalent ratios using tables
								0.5141C.111 11.5 4.6	compare equivalent ratios using tables
								6.SMC.RP.1.3-5.c	Solve unit rate problems including those involving unit pricing and constant speed
								6.SMC.RP.1.3-6.b	Find a percent of a quantity as a rate per 100
								6.SMC.RP.1.3-7.b	Solve problems by finding the whole, given a part and the percent
								6.SMC.RP.1.3-8.b	Convert measurement units using ratio reasoning
								6.SMC.RP.1.3-9.b	Manipulate measurement units when multiplying or dividing quantities
								6.SMC.RP.1.3-10.b	Transform measurement units when multiplying or dividing quantities
							Stran	nd: The Number System	n (NS)
MC.NS.1	Apply and ex	tend previous u	ınderstand	ings of mult	iplication and	d division to	divide fractio	ons by fractions.	
								6.SMC.NS.1.1-1.b	Interpret quotients of fractions
								6.SMC.NS.1.1-2.b	Compute quotients of fractions
								6.SMC.NS.1.1-3.b	Solve word problems involving division of fractions by fractions
MC.NS.2	Compute flue	ently with multi	-digit num	bers and fin	d common fa	ctors and mu	ıltiples.		
								6.SMC.NS.2.2.a	Divide multi-digit numbers fluently using the standard algorithm
									Add, subtract, multiply, and divide multi-digit decimals fluently using the standard algorith
								6.SMC.NS.2.3.a	for each operation
								6.SMC.NS.2.4-1.b	Find the greatest common factor of two whole numbers less than or equal to 100
								6.SMC.NS.2.4-2.b	Find the least common multiple of two whole numbers less than or equal to 12
									Use the distributive property to express a sum of two whole numbers from 1 to 100 with a
								6.SMC.NS.2.4-3.b	common factor as a multiple of a sum of two whole numbers with no common factor
MC.NS.3	Apply and ex	tend previous u	ınderstand	ings of num	bers to the sy	stem of ratio	onal number	s.	
									Show that positive and negative numbers are used together to describe quantities having
								6.SMC.NS.3.1-1.b	opposite directions or values
			T	_					Explain the meaning of zero when using positive and negative numbers to represent
								6.SMC.NS.3.1-2.b	quantities in real-world contexts
									Express opposite signs of numbers as indicating locations on opposite sides of 0 on the
								6.SMC.NS.3.2-1.a	number line
								6.SMC.NS.3.2-2.a	Show that the opposite of the opposite of a number is the number itself
								6.SMC.NS.3.2-3.a	Show that 0 is its own opposite
									Show that signs of numbers in ordered pairs indicate locations in quadrants of the coordin
								6.SMC.NS.3.2-4.b	plane



								Show that when two ordered pairs differ only by signs, the locations of the points are related
							6.SMC.NS.3.2-5.b	by reflections across one or both axes in quadrants of the coordinate plane
							OISMENTOISIZ SID	by refrections do oss one or some axes in quadrants of the coordinate plane
							6.SMC.NS.3.2-6.a	Find integers and other rational numbers on a horizontal or vertical number line diagram
ļ							6.SMC.NS.3.2-7.b	Position integers and other rational numbers on a horizontal or vertical number line diagram
							6.SMC.NS.3.2-8.a	Find pairs of integers and other rational numbers on a coordinate plane
							6.SMC.NS.3.2-9.b	Position pairs of integers and other rational numbers on a coordinate plane
ļ								Use the relative position of two numbers on a number line diagram to interpret statements
							6.SMC.NS.3.3-1.b	of inequality
							6.SMC.NS.3.3-2.b	
							6.SMC.NS.3.3-3.b	
							6.SMC.NS.3.3-4.b	Explain statements of order for rational numbers using real-world contexts
								Use the distance from 0 on the number line to identify the absolute value of a rational
							6.SMC.NS.3.3-5.c	number
Ų							C CNAC NIC 2 2 C -	Use the distance from 0 on the number line to interpret the absolute value as magnitude for
							6.SMC.NS.3.3-6.c 6.SMC.NS.3.3-7.c	a positive or negative quantity in a real-world situation  Distinguish comparisons of absolute value from statements about order
							U.SIVIC.INS.3.3-7.C	Solve real-world and mathematical problems by graphing points in all four quadrants of the
							6.SMC.NS.3.4.c	coordinate plane
						<u> </u>	Strand: Expressions and Equ	<u>'</u>
C140 FF 4								uniono (EE)
SMC.EE.1	Apply and ex	tend previou	is understand	lings of arith	metic to algei	braic expressi	ons.	
							6.SMC.EE.1.1-1.a	Write numerical expressions involving whole-number exponents
							6.SMC.EE.1.1-2.a	Evaluate numerical expressions involving whole-number exponents
ļ								Write expressions that record operations with numbers and with letters standing for
							6.SMC.EE.1.2-1.a	numbers
							6.SMC.EE.1.2-2.b	Identify parts of an expression using mathematical terminology
							6.SMC.EE.1.2-3.b	Describe one or more parts of an expression as a single entity
							6.SMC.EE.1.2-4.b	Evaluate expressions at specific values of their variables
ļ							6.SMC.EE.1.2-5.b	Use Order of Operations to perform arithmetic operations in the conventional order when there are no parentheses to specify a particular order
							6.SMC.EE.1.2-3.0	Apply the properties of operations to generate equivalent expressions
							6.SMC.EE.1.4.b	Determine the equivalency of two expressions
				_		l	0.5IVIC.LL.1.4.D	Determine the equivalency of two expressions
SMC.EE.2	Reason abou	t and solve o	ne-variable e	quations an	d inequalities	•		
							6.SMC.EE.2.1-1.b	Determine the set of values that make an equation or inequality true
								Use substitution to determine whether a given number in a specified set makes an equation
							6.SMC.EE.2.1-2.b	or inequality true
ļ								Solve a real world or mathematical problem by writing expressions with variables
							6.SMC.EE.2.2-1.b	representing numbers
ļ								
							6.SMC.EE.2.2-2.b	Show that a variable represents an unknown number or any number in a specified set
Ų								Solve real-world and mathematical problems by using equations of the form x + p = q for
							6.SMC.EE.2.3-1.c	cases in which p, q and x are all nonnegative rational numbers
Ų							C CA40 FF 2 2 2	Solve real-world and mathematical problems by using equations of the form px = q for cases
l.							6.SMC.EE.2.3-2.c	in which p, x and q are all nonnegative rational numbers
							C CNAC FF 2 4 4 -	Write an inequality of the form x > c or x < c to represent a real world or mathematical
							6.SMC.EE.2.4-1.c 6.SMC.EE.2.4-2.b	constraint or condition  Show that inequalities of the form x > c or x < c have infinitely many solutions
						+	0.5IVIC.LL.2.4 2.B	Show that inequalities of the form x > c of x < c have infinitely many solutions
							6.SMC.EE.2.4-3.b	Represent solutions of inequalities of the form x > c or x < c on number line diagrams



				Solve a real world problem that uses variables to represent two quantities that change in
			6.SMC.EE.3.1-1.	relationship to one another
				Write an equation that expresses one quantity as the independent variable and the second
			6.SMC.EE.3.1-2.	quantity as the dependent variable
				Analyze the relationship between the dependent and independent variables using graphs and
			6.SMC.EE.3.1-3.	tables
				Relate graphs and tables to a written equation that expresses one quantity as the
			6.SMC.EE.3.1-4.	independent variable and the second quantity as the dependent variable
			Strand: Geometry	(G)
.SMC.G.1 Solve rea	al-world and mathematic	cal problems involving	area, surface area, and volume.	
				Find the area of right triangles, non-right triangles, special quadrilaterals, and polygons by
			6.SMC.G.1.1-1.a	
			0.0110101212 210	Find the area of right triangles, non-right triangles, special quadrilaterals, and polygons by
			6.SMC.G.1.1-2.a	
			0.51416.13.111 2.0	Solve real world problems by finding the area of right triangles, non-right triangles, special
			6.SMC.G.1.1-3.a	, , , , , , , , , , , , , , , , , , , ,
			0.3IVIC.G.1.1-3.d	quaumaterais, and polygons by composing into rectangles
				Solve real world problems by finding the area of right triangles, non-right triangles, special
			6.SMC.G.1.1-4.a	, , , , , , , , , , , , , , , , , , , ,
			0.3IVIC.G.1.1-4.d	7 1 70 7 1 0 0
			C CNAC C 1 2 1 -	Find the volume of a right rectangular prism with fractional edge lengths by packing it with
			6.SMC.G.1.2-1.a	11 1
				Compare the volume of a right rectangular prism with fractional edge lengths found by
				packing it with unit cubes of unit fraction edge lengths to the volume of a right rectangular
			6.SMC.G.1.2-2.a	
				Solve real world and mathematical problems by applying the formula V = I w h to find
			6.SMC.G.1.2-3.a	volumes of right rectangular prisms with fractional edge lengths
				Solve real world and mathematical problems by applying the formula V = b h to find volumes
			6.SMC.G.1.2-4.a	of right rectangular prisms with fractional edge lengths
			6.SMC.G.1.3-1.b	Draw polygons in the coordinate plane given coordinates for the vertices
				Use coordinates in the coordinate plane to find the length of a side joining points with the
			6.SMC.G.1.3-2.b	
				Solve real world problems by drawing polygons in the coordinate plane and finding the lengt
			G.SMC.G.1.3-3.b	of a side joining points with the same first or the same second coordinate
			6.SMC.G.1.4-1.c	Represent three-dimensional figures using nets made up of rectangles and triangles
			0.0.110.10.12.11 2.10	Use nets made up of rectangles and triangles representing three-dimensional figures to find
			6.SMC.G.1.4-2.c	
			0.5141C.G.1.4 2.0	Solve real world and mathematical problems by representing three-dimensional figures by
			6.SMC.G.1.4-3.c	
			Strand: Statistics and Prol	
			Strand: Statistics and Prof	odbility (SP)
SMC.SP.1 Develop	understanding of statis	stical variability.		
			6.SMC.SP.1.1.a	Identify a statistical question
			6.SMC.SP.1.2.b	Identify the characteristics of a statistical distribution of a set of data
			6.SMC.SP.1.3-1.	,
-			6.SMC.SP.1.3-1.1	
SMC.SP.2 Summa	rize and describe distrib	utions.		pocare a measure of variation for a numerical data set
JJ.J. 12 Julillia	und describe distribi		G CN4C CD 2.4 -	Disalay numarical data in plate on a number line
			6.SMC.SP.2.1.a	Display numerical data in plots on a number line
				Summarize numerical data sets in relation to their context by reporting the number of
			6.SMC.SP.2.2-1.l	
				Summarize numerical data sets in relation to their context by describing how it was
	1		6.SMC.SP.2.2-2.1	measured and its units of measurement

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									Summarize numerical data sets in relation to their context by using quantitative measures of	
							6	.SMC.SP.2.2-3.c	center	
							ľ	.51416.51 .2.2 5.6	Summarize numerical data sets in relation to their context by using quantitative measures of	
							6	.SMC.SP.2.2-4.c	variability	
									Summarize numerical data sets by describing overall patterns and deviations from the overall	
							6	.SMC.SP.2.2-5.c	patterns with reference to the context in which the data were gathered	
									Summarize numerical data sets by relating measures of center and variability to the shape of	
							6	.SMC.SP.2.2-6.c	the data distribution in the context in which the data were gathered	
DOMAIN: Standards for Mathematical Practices										
							Strano	d: Solve Problems (I	MP1)	
6.SMP.1 1. I	Make sense o	f problems a	nd persevere	in solving th	nem.					
							6	.SMP.1.c	Make sense of problems and persevere in solving them	
							St	rand: Reason (MP2)		
6.SMP.2 2. I	Reason abstra	ctly and qua	intitatively.							
							6	.SMP.2.c	Reason abstractly and quantitatively	
							Strand: C	Construct Argument	s (MP3)	
6.SMP.3 3. (	Construct vial	ole argumen	ts and critiqu	e the reason	ing of others.					
							6	.SMP.3.c	Construct viable arguments and critique the reasoning of others	
							St	trand: <i>Model (MP4)</i>		
6.SMP.4 4. I	Model with m	athematics.								
							6	.SMP.4.c	Model with mathematics	
							Stra	and: Use Tools (MP:	5)	
6.SMP.5 5. I	Jse appropria	ite tools stra	tegically.							
							6	.SMP.5.c	Use appropriate tools strategically	
							Strand:	Attend to Precision	(MP6)	
6.SMP.6 6.	6.SMP.6 6. Attend to precision.									
							6	.SMP.6.c	Attend to precision	
Strand: Use Structure (MP7)										
6.SMP.7 7. I	6.SMP.7 7. Look for and make use of structure.									
							6	.SMP.7.c	Look for and make use of structure	
							Strand:	Express Regularity	(MP8)	
6.SMP.8 8. I	6.SMP.8 8. Look for and express regularity in repeated reasoning.									
							6	.SMP.8.c	Look for and express regularity in repeated reasoning	