Curriculum Pacing Guide

Grade 8 Mathematics

The purpose of this pacing guide is to assist in mapping out the assessment of curricular objectives in Mathematics. It should be noted that there is no required order in which to teach and assess as long as the outcomes are appropriately taught, evaluated and assessed by the end of each Semester. This document should not be seen as a checklist of outcomes to 'cover' from top down.

For the 2022-2023 school year, there is flexibility between quarters within each Semester. All specific outcomes in Q1 and Q2 must be taught and assessed by the end of January (Semester 1). All specific outcomes in Q3 and Q4 must be taught and assessed by the end of June (Semester 2). Keep in mind that each CFA is designed following the order of outcomes in the pacing guide.

Teachers can use the content aspects of the program to measure pacing, but are still required to address the Mathematical processes which are equally important in the delivery of outcomes. The observations/notes (on the right) are merely suggestions and approximate days to support the delivery of content.

NOTE: The mathematical processes (Connection, Communication, Mental Math and Estimation, Visualization, Technology, Reasoning, Problem Solving) are embedded in the outcomes. It is important that you look for these when teaching a specific outcome. The Math Processes will provide scaffold options by which you can leverage to support the understanding of the intended outcome.

Quarter 1	Report Standards (PTP Outcome)	Specific Outcomes from Program of Studies	(Observations / Notes)
MMS Text **Chapter #2** 2.1 to 2.5	8.MAT.N.1.7	**NUMBER STRAND** **N7.** Demonstrate an understanding of multiplication and division of integers, concretely, pictorially and symbolically. [C, CN, PS, R, V]	Approx - 14 Days Making connections to integers with numbers lines is a good visual transition into fraction work.
MMS Text **Chapter #3** 3.1 to 3.9	8.MAT.N.1.6	**NUMBER STRAND** ▲ **[EAP Enhancement]** **N6.** Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially and symbolically. [C, CN, ME, PS] **NOTE:** Chapter #3 and #5 are both long chapters. Teachers have noted that infusing the stats outcomes is a nice application/break from the theory being taught. Days spent on these 2 chapters will need to be specifically planned as students often struggle. The Math processes are a great way to support the different scaffolds that will be required to support student understanding.	Approx - 23 Days Connection opportunities exist for Probability of Independent Events, section 7.3 of textbook. .

Calculator Free Assessment 1 (Third week of November)

Quarter 2	Report Standards (PTP Outcome)	Specific Outcomes from Program of Studies	(Observations / Notes)
MMS Text **Chapter #5** 5.1 to 5.4	8.MAT.N.1.3 8.MAT.N.1.5	**NUMBER STRAND** ▲ **[EAP Enhancement]** **N3.** Demonstrate an understanding of percentage greater than or equal to 0%, including greater than 100%. [CN, PS, R, V] **N5.** Solve problems that involve rates, ratios and proportional reasoning. [C, CN, PS, R]	Approx - 26 Days Connections opportunity into Circle graphs & percentage, 7.1 and 7.2 of textbook.
MMS Text **Chapter #5** 5.5 to 5.10	8.MAT.N.1.4	**NUMBER STRAND** **N4.** Demonstrate an understanding of ratio and rate. [C, CN, V]	Connection into basic algebraic equation work, section 6.2 of textbook.
MMS Text **Chapter #1** 1.1 , 1.2	8.MAT.N.1.1	**NUMBER STRAND** **N1.** Demonstrate an understanding of perfect squares and square roots, concretely, pictorially and symbolically (limited to whole numbers). [C, CN, R, V]	Approx - 15 Days
MMS Text **Chapter #1** 1.3 , 1.4	8.MAT.N.1.2	**NUMBER STRAND** ▲ **[EAP Enhancement]** **N2.** Determine the approximate square root of numbers that are not perfect squares (limited to whole numbers). [C, CN, ME, R, T] [ICT:P2–3.4]	Teachers have found success in applying this property beyond algebraic solving. Consider using compositions of shapes to visually support student understanding.
MMS Text **Chapter #1** 1.5 to 1.7	8.MAT.SS.1.1	**SHAPE & SPACE (Measurement)** ▲ **[EAP Enhancement]** **SS1.** Develop and apply the Pythagorean theorem to solve problems. [CN, PS, R, T, V] [ICT: P2–3.4]	The Pythagorean theorem provides a good connection into the equation work that is coming later in the course. This is one opportunity where students can be "manipulating" for the required variable in a formula.

END OF SEMESTER 1

Calculator Free Assessment 2 (Third week of February)

Quarter 3	Report Standards (PTP Outcome)	Specific Outcomes from Program of Studies	(Observations / Notes)
MMS Text **Chapter #6** 6.6 , 6.7	8.MAT.PR.1.1	**PATTERNS & RELATIONS (Patterns)** ▲ [EAP Enhancement] **PR1.** Graph and analyze two-variable linear relations. [C, ME, PS, R, T, V] [ICT: P2–3.3]	Approx - 22 Days
MMS Text **Chapter #6** 6.1 to 6.5	8.MAT.PR.2.1	**PATTERNS & RELATIONS (Variables & Equations)** ▲ [EAP Enhancement] **PR2.** Model and solve problems concretely, pictorially and symbolically, using linear equations of the form: • $ax = b$ • $x/a=b$ = , $a \neq 0$ • $ax + b = c$ •$x/a +b = c$, $a \neq 0$ • $a(x + b) = c$ where a, b and c are integers. [C, CN, PS, V]	Opportunities exist for connecting equation work with visual models to support algebraic understanding. Transitional opportunities can be found in the shapes and space material that is next. ARe you looking to transition "plotting knowledge" OR are you looking to transition into "area work"
MMS Text **Chapter #4** 4.1 , 4.2	8.MAT.SS.1.2	**SHAPE & SPACE (Measurement)** **SS2.** Draw and construct nets for 3-D objects. [C, CN, PS, V]	Approx - 19 Days
MMS Text **Chapter #4** 4.3 , 4.4	8.MAT.SS.1.3	**SHAPE & SPACE (Measurement)** **SS3.** Determine the surface area of right rectangular prisms, right triangular prisms, right cylinders to solve problems. [C, CN, PS, R, V]	Connections back into the previous equation work is possible through most of this chapter.
MMS Text **Chapter #4** 4.5 to 4.8	8.MAT.SS.1.4	**SHAPE & SPACE (Measurement)** ▲ [EAP Enhancement] **SS4.** Develop and apply formulas for determining the volume of right rectangular prisms, right triangular prisms and right cylinders. [C, CN, PS, R, V]	

Calculator Free Assessment 3 (Second week of May)

Quarter 4	Report Standards (PTP Outcome)	Specific Outcomes from Program of Studies	(Observations / Notes)
MMS Text **Chapter #8** 8.1 to 8.3	8.MAT.SS.2.1	**SHAPE & SPACE (3D Objects & 2d Shapes)** **SS5.** Draw and interpret top, front and side views of 3-D objects composed of right rectangular prisms. [C, CN, R, T, V] [ICT: C6–3.4]	Approx - 17 Days Connect back to "Nets" from Chapter 4.
MMS Text **Chapter #8** 8.4 to 8.6	8.MAT.SS.3.1	**SHAPE & SPACE (Transformations)** **SS6.** Demonstrate an understanding of the congruence of polygons. [CN, R, V]	Consider spending time to connect "perspective" as a way to further enhance congruency. The stats material can be used as a transitional segway given that data is presented in a "biased" way to promote a specific viewpoint.
MMS Text **Chapter #7** 7.1 , 7.2	8.MAT.SP.1.1	**STATS & PROBABILITY (Data Analysis)** ▲ [EAP Enhancement] **SP1.** Critique ways in which data is presented in circle graphs, line graphs, bar graphs and pictographs. [C, R, T, V] [ICT: C7–3.1, C7–3.2, F4–3.3]	Approx - 15 Days Review opportunity relating fractions, decimals and percents 5.1, 5.2, 5.3 of textbook.
MMS Text **Chapter #7** 7.3 , 7.4	8.MAT.SP.2.1	**STATS & PROBABILITY (Chance & Uncertainty)** ▲ [EAP Enhancement] **SP2.** Solve problems involving the probability of independent events. [C, CN, PS, T] [ICT: P2–3.4]	Teachers have commented that probability is a nice review connection to multiplying and simplifying fraction work, section 3.1 to 3.3 of the textbook.

END OF SEMESTER 2