

Mrs. Kroger's Math 7 Course Syllabus Justice Page Middle School 2019-2020

Preferred method of communication is through email: Tara.Kroger@mpls.k12.mn.us
Web: https://page.mpls.k12.mn.us/kroger_tara
Phone: 218-234-1419

Course Description: Mathematics is the study of patterns and relationships. Mathematicians notice, describe and generalize patterns. Math 7 students will practice these skills each day in class. Students will be expected to explain their thinking and respond to the mathematical thinking of others. Ideally, students will notice and describe the patterns and relationships they see around them outside of class as well. The big theme of grade 7 mathematics is **proportionality**. Students need to be able to work fluently with ratios, rates, scale factors and proportions. Students will display proportional relationships in tables, equation, graphs and with verbal descriptions. All 6 units we study this year will give students the chance to show they can reason proportionality.

	Unit	Learning Targets	Connection to Proportionality
	Yearlong Communication Goal	LT0: I can explain my thinking and respond to the mathematical thinking of others..	Proportionality is not just a skill; it is a concept that students need to be able to describe in a variety of ways.
Semester 1	1. 2D & 3D Geometry Approximate dates: August– September	LT1.1: I can find measurements and justify formulas involving circumference, area of circles, volume of cylinders, surface area of cylinders, area of sectors of circles and arc length.	Pi is the ratio of the circumference of a circle to the length of its diameter. Students will find the length of arcs and the area of sectors.
	2. Integers and Rational Numbers Approximate dates: October – November	LT2.1: I can compare positive and negative numbers, expressed as integers, fractions and decimals and graph them on a number line or coordinate grid. LT2.2: I can calculate with positive and negative rational numbers including those with whole number exponents. LT2.3: I can use the order of operations and algebraic properties to evaluate expressions containing variables and positive and negative numbers and create equivalent expressions.	This unit will be student first introduction to working fluently with negative numbers. Although this unit has the least connection to proportionality, we will be working with ratios and rates that involve negative values.
	3. Ratios and Proportional Reasoning Approximate dates: November– January	LT3.1: I can write and represent positive and negative numbers, expressed as integers, fractions and decimals. LT3.2: I can use proportional reasoning to solve problems involving ratios, rational numbers & interest. LT3.3: I can recognize, represent and solve multi-step problems involving proportional relationships in context. LT3.4: I can analyze the effect of change of scale on the attributes of two-dimensional figures.	This is the major unit where students will be expected to show that they can reason proportionally. Students will write a lot in this unit to describe the how the size and magnitude of objects and situations are related. Students will work with ratios, rates and scale factors.
Semester 2	4. Proportional Relationships Approximate dates: January – March	LT4.1: I can identify the features of proportional relationships and can distinguish between proportional and other relationships. LT4.2: I can represent proportional relationships in real world & mathematical situations with tables, equations/inequalities, graphs, context and language. LT4.3: I can graph and describe translations and reflections of figures on a coordinate grid. LT4.4: I can solve real world and mathematical situations using equations with variables.	This unit is one of the major algebra units of the year. Students will look at linear relationships that are proportional, specifically equations in the form $y=mx$.
	5. Data and Probability Approximate dates: March – April	LT5.1: I can use the mean, median and range to draw conclusions about data and make predictions. LT5.2: I can display and interpret data in a variety of ways, including circle graphs and histograms. LT5.3: I can calculate probabilities and reason about probabilities using proportions.	Data is a wonderful way for students to reason proportionally.
	6. Linear Relationships Approximate dates: May – June	LT6.1: I can represent linear functions with tables, equations, graphs, context and language including identifying the slope and y-intercept. LT6.2: I can represent and solve real-world and mathematical situations using linear equations and inequalities.	This algebra unit will allow students to compare & contrast proportional relationships ($y=x$) to linear relationships that are not proportional ($y=mx+b$) as well as non-linear relationships (exponential).

REQUIRED MATERIALS

Notebook, Folder (or designated math space in binder), Planner, Lots of pens or pencils (student choice). Students need access to a **scientific calculator** at home for help with homework. I recommend a TI-30XS \$10-15 calculator found at most stores or downloading a free calculator on a phone or tablet.

HOMEWORK

Students will have homework **every day** in Math 7. Students should expect to spend an average of 20 minutes per day on their homework, though the actual time may range from 5-35 minutes. Homework is due the day after it is assigned. No late homework will be accepted. Students who are absent will have an extra day to complete the assignment they missed. Homework is assessed not for correct answers (although, correct answers are great) but for students ability to try every problem and explain their thinking.

HELP WITH HOMEWORK

Students can get help with homework during lunch in my room, 324, dates and times will be posted in the classroom. Digital copies of homework assignments will be linked to the gradebook as often as possible. All students will receive a paper copy.

RE-DO'S, RETAKES, REVISING POLICY

Students may re-take a learning target assessment in order to demonstrate increased learning. Before re-taking an assessment students will be asked to demonstrate additional practice on the learning target, and the assessment may occur in a different format than the original assessment. All re-do's, retakes, and revisions are due by two weeks of the original assessment.

JPS GRADING POLICY

The purpose of the JPS grading policy is to align grading with the mastery of state content standards as measured by consistent student achievement data and common criteria for grading. The primary goal of the PGP is to better communicate what each student knows and is able to do, as well as to inform the teacher, student, and parent what may be next steps for areas for growth. At Justice Alan Page Middle School, standards-based learning targets are assessed on a 4 point scale to indicate the proficiency level at which the student has mastered the learning target. Math 7 will use three rubrics, one for learning targets and one for work habits homework/class tasks.

Learning Target Rubric

4 Exemplary	3 Proficient	2 Partially Proficient	1 Not Proficient	0 No Evidence
No errors Fully supported Above and beyond standards	Complete understanding Adequately supported May contain a minor error	Partial understanding Not yet mastered	Little Progress Not accurate Does not meet criteria Incomplete	Did not attempt Missing

Work Habits Rubric * Homework

4 Exemplary	3 Proficient	2 Partially Proficient	1 Not Proficient	0 No Evidence
All problems attempted. Work shown on all problems.	Most problems complete. Work shown on problems.	Approximately half of the problems attempted. Work shown.	Approximately ¼ of homework complete and/or no work shown.	Did not attempt Missing (at home or in locker)

Work Habits Rubric * Notebooks/Task Cards/Quiz & Test Review Sheets (often self-assessed)

4 Exemplary	3 Proficient	2 Partially Proficient	1 Not Proficient	0 No Evidence
Notes are dated and titled Organized 100% Complete Examples Diagrams and Pictures Definitions	Notes are dated and titled Organized Nearly Complete Examples Diagrams and Pictures Definitions	Notes are dated and titled Notes are not in one place or in order Approximately half complete. Missing some examples, definitions or diagrams.	Missing dates and titles Little organization Approximately ¼ complete.	Did not attempt Missing