

# 5th Grade Math

2022-2023 school year  
T/Th 3:00 PM ET

Instructor: Dora Ward; nymphodoraward@gmail.com

Office Hours: by Appointment, please contact me through Edmodo or Email and I will set up a time to help you. I'm here to help you succeed, don't be afraid to reach out

## I. Rationale:

Welcome to 5th grade! This year we will be starting out with some new tools for understanding math while delving deeper and deeper into concepts like multiplication, division, and decimals from last year. We will also be learning how to multiply and divide with fractions, use the numbers around us in the world using statistics, and explore more complicated geometry.

## II. Course Aims and Outcomes:

### A. Aims

- Easily use and access the 4 operations of Mathematics in many applications: addition, subtraction, multiplication, and division
- Use mathematical tools like calculators to supplement mathematical understanding, especially for very large or very small numbers
- Learn basic ideas around exponents
- explore number sense to problem solve
- add, subtract, multiply, and divide decimals
- learn ways to read and describe data
- execute operations on fractions

## III. Format and Procedures:

This class will consist of two meetings a week which will start at 3 PM ET, please make sure you know what time that means based on where you live.

We will have a daily assignment, even on days where we don't have class. However, there will be no assignments on feasts. Saint Athanasius is on the new calendar, if you are on the old calendar, please talk to me and we will figure out a plan so you can celebrate your feasts.

For the first minutes of class, you will be completely free to ask any questions about this class

## IV. My Assumptions

The projects I design for this class are based around you learning how to use math to be successful living in the real world. Math is a beautiful subject which allows for a deeper understanding of creation, but it can also be a tool of everyday life. My projects are not designed around anything outside of the norm for your family, but will require you to take an active role in your home and family. Understanding and succeeding for this class will include being able to use your math in the world.

## **V. Course Requirements:**

1. Prerequisites: This class assumes that you will have completed math 4. You should know how to add, subtract, and begin to have an understanding of multiplication. You do not have to have all your multiplication facts memorized.
2. Class attendance and participation policy: There are always reasons why you might not be able to attend class. If you won't be able to be in class, all classes will be recorded and you can watch any lessons you miss. If you have a family emergency and cannot do the work, please talk to me and we will work something out which will lessen your load.

Work is expected to be turned in at the end of each week and will be graded mostly on participation except for 2 random problems. I will have these graded as quickly as possible, with the goal of having them done by the end of Monday. You may turn work in late, but it will not be a priority for me to grade over the new work coming in.

3. Course readings:
  - (a) Required text(s): [Math Mammoth Grade 5](#)
  - (b) Other readings: There will be project outlines and texts on edmodo, please keep your eyes out. There will also be short support videos when I recognize consistent issues.

## **VI. Expectations for Parents**

- Set aside a calm, quiet, distraction-free space for your child(ren) to work every day.
- Ensure virtual learning equipment is available and charged.
- Establish routines and expectations and a basic schedule for completing classwork.
- Help students 'own' their learning.
- Check Edmodo for communications from teachers and help students print off resources that are provided.
- Stay abreast of teacher feedback in the form of grades or other messages.
- Proctor tests, quizzes, or other assessments as scheduled by the teacher. Parents ensure academic integrity because they are on the "live" side of the screen.
- Communicate with teachers regularly via email or Edmodo regarding any questions or issues that arise.
- If your child is having trouble completing work, email teachers to schedule a time for an online meeting.

## **VII. Grading Procedures**

Grades will be weighted on the following scale:

- (a) Class participation (25 %)
- (b) Homework (15 %)
- (c) Projects (20 %)
- (d) Tests (30 %)

### **VIII. Academic Integrity**

Each student in this course is expected to abide by the Cornell University Code of Academic Integrity. Any work submitted by a student in this course for academic credit will be the student's own work.

You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. One great way to assess what you know is to teach the idea to a peer! You may also work together on problem sets and give "consulting" help to or receive "consulting" help from your peers. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in any form (e.g. email, Word doc, Box file, Google sheet, or a hard copy). Assignments that have been previously submitted in another course may not be submitted for this course.

Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Code can also be extended to include failure of the course and University disciplinary action.

During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam and may lead to failure of the course and University disciplinary action.

### **IX. Tentative Course Schedule**

<b>Week</b>	<b>At home work</b>	<b>In Class</b>
8/16-8/20	Syllabus, scavenger hunt	Tuesday: Syllabus Thursday: Scavenger Hunt
8/22-8/27	Mental Math, Order of Operations and equations, Review: Addition and Subtraction, Review: Multiplication and Division, Multiplying by parts	Tuesday: Order of Operations Thursday: Review Operations

8/30-9/2	The Multiplication Algorithm, More Multiplication, Long Division, A two digit division 1 and 2	Tuesday: Multiplication algorithm Thursday: Long Division
9/5-9/9	NO CLASS ON 9/8 FOR NATIVITY OF THE THEOTOKOS! Long division and repeated subtraction, Divisibility rules, Review Factors and primes, Prime Factorization	Tuesday: Thursday: No class
9/12-9/16	NO CLASS ON 9/14 FOR EXALTATION OF THE CROSS Review Chapter 1, Test for chapter 1, Project	Tuesday: Review Chapter 1 Thursday: Project Overview
9/19-9/23	Chapter 2! A little bit of millions, Place value up to billions, exponents and powers, adding and subtracting large numbers, Rounding	Tuesday: Millions and Billions Thursday: Exponents and powers
9/26-9/30	The Calculator, When to Use the Calculator, Mixed Review, chapter 2 review, project	Tuesday: When to use a calculator Thursday: Review
10/3-10/7	chapter 2 Test Chapter 3! Balance problems and Equations 1 and 2, More Equations, Problem solving with bar models 1	Tuesday: Balancing equations Thursday: Bar Models
10/10-10/14	Problem solving 2-4, Mixed Review, Chapter 3 review	Tuesday: Problem solving Thursday: Review
10/17-10/21	Project, Test 3 Chapter 4! Tenths and Hundredths, Thousandths, Decimals on a numberline, Add and Subtract decimals-mental math	Tuesday: Decimal review Thursday: Decimals on a numberline
10/24-10/28	Add and subtract decimals with columns, Comparing Decimals, Rounding decimals, Multiply a Decimal by a Whole Number, More on Multiplying Decimals	Tuesday: Comparing decimals Thursday: Multiplying decimals

10/31-11/4	More practice and review, Divide decimals by whole numbers 1 and 2, Mixed Review 4, Chapter 4 Review	Tuesday: Divide decimals by wholes Thursday: Review
11/7-11/11	Project, Test chapter 4 Chapter 5! Introduce Project, Coordinate Grid, Number Patterns in the coordinate grid	Tuesday: Project overview Thursday: Coordinate grid
11/14-11/18	More Number patterns in the coordinate grid, Line graphs, Reading line graphs, Double and Triple Line graphs, Making Bar graphs	Tuesday: Line graphs Thursday: Bar graphs
11/21-11/25	Thanksgiving Break! There is no homework for this week.	
11/28-12/2	Making Histograms, Double Bar Graphs, Average (Mean) Mean, Mode, and Bar Graphs	Tuesday: Histograms Thursday: Measuring center
12/5-12/9	Mixed Review, Chapter 5 review, finish project, Test 5	Tuesday: Review Thursday: finish Projects
12/12-12/16	End of the semester review, what does next semester look like, catch up with late work	Tuesday: End of semester review Thursday: Next semester preview

<b>Week</b>	<b>At home work</b>	<b>In Class</b>
1/10-1/13	Chapter 6! Multiply Decimals by Decimals, Multiplication as scaling, Decimal Multiplication-More practice, Dividing Decimals-mental math	Tuesday: Multiplying decimals by decimals Thursday: Dividing decimals
1/16-1/20	More Division with Decimals, Multiply and Divide by powers of 10 1 and 2, The metric System 1 and 2	Tuesday: Multiply and divide by powers of 10 Thursday: The Metric System

1/23-1/27	Divide Decimals by Decimals 1 and 2, Converting Between Customary Units of Measurement, Rounding Measurements, Problem Solving	Tuesday: Dividing decimals by decimals Thursday: converting between units
1/30-2/3	NO CLASS ON 2/2 FOR PRESENTATION OF THE LORD! Mixed Review, Chapter 6 Review, Project, Test 6	Tuesday: review Thursday: No class
2/6-2/10	Chapter 7! Fraction terminology, Review: Mixed Numbers, Adding Mixed Numbers, Subtracting Mixed Numbers 1 and 2	Tuesday: Adding Mixed numbers Thursday: Subtracting Mixed Numbers
2/13-2/17	Equivalent Fractions 1 and 2, Adding and Subtracting Unlike Fractions, Finding the Least Common denominator, Adding and Subtracting Mixed Numbers	Tuesday: Equivalent fractions Thursday: Least Common Denominator
2/20-2/24	Comparing Fractions, Add and Subtract: More practice, Word Problems, Measuring In Inches	Tuesday: Comparing fractions Thursday: Inches, feet, yards, etc
2/27-3/3	No school for Clean Week break.	
3/6-3/10	Mixed Review, Project, Review, Chapter 7 test	Tuesday: Review Thursday: Project overview
3/13-3/17	Chapter 8! Simplifying Fractions 1 and 2, Multiplying Fractions by Whole Numbers, Multiplying fractions by Fractions 1 and 2	Tuesday: Simplifying fractions Thursday: Multiplying fractions
3/20-3/24	Fraction Multiplication and Area, Simplifying before Multiplying, Multiply Mixed Numbers, Multiplication as Scaling/Resizing, Fractions are Division	Tuesday: Area model Thursday: Scaling and division
3/27-3/31	Dividing Fractions: The Shortcut, Dividing Fractions: Sharing Divisions, Dividing Fractions: Fitting the Divisor, Dividing Fractions: Summary	Tuesday: Quotitive Dividing fractions Thursday: Partitive division of fractions
4/3-4/7	Mixed Review 8, Chapter 8 review, Project, Test 8	Tuesday: Review

		Thursday: Project overview
4/10-4/14	No school for Holy Week break	
4/17-4/21	No School for bright week break	
4/24-4/28	Chapter 9! Review: Angles, Review Drawing Polygons, Star Polygons, Circles, Quadrilaterals	Tuesday: reviewing geometry Thursday: More complicated shapes
5/1-5/5	Equilateral, Isosceles, and Scalene triangles, Area and Perimeter Problems, Volume, Volume of Rectangular prisms, Volume is Additive	Tuesday: Types of triangles Thursday: Volume
5/8-5/12	A little bit of problem solving, Mixed Review 9, Review Chapter 9, Project, Test 9	Tuesday: Review Thursday: Project overview
5/15-5/29	End of the year review, final test	Tuesday: End of the year review Thursday: final test