



School Year 2022 – 2023

HAMPSTEAD HILL ACADEMY

Class Syllabus

Teacher's Name: Mr. White
Subject: CCSS 7th Grade Mathematics

Grade Level: 7
Contact Information: bwhite@hha47.org

Goal: My goal is to create a classroom learning environment that is organized, respectful, safe, and stress free.

Overview: I will encourage students and challenge students with quality work. I hope to build a positive classroom community that will encourage critical thinking skills and allow students to learn to their fullest potential.

Classroom Rules:

- Rule: 1** Students will enter the classroom calmly, and quietly
Rule: 2 Students will be prepared with a notebook, pencil and homework
Rule: 3 Students will be respectful to the classroom, classmates and teacher
Rule: 4 Students will keep cell phones/devices turned off and away

Student Behavior and Consequences: My goal is to focus on the student's good behavior and effort in my classroom, instead of dealing solely on the misbehaviors. I want to celebrate and encourage good behavior and academic accomplishments in my classroom. Rewards are not given to students; they are earned by the students.

Grading Policy: Tests– 30% Quizzes – 30% Exit Tickets/Classwork– 20% Participation – 10% Homework – 10%

Homework: Homework is assigned every night.

Extra-Credit Work: No extra credit work will be given to students.

Make-up/Missing Work: Students are responsible for arranging with the teacher to obtain all make-up work that they missed while they were absent from school or from class.

Quizzes and Unit Tests: All quizzes and tests will be administered via the online website called Edulastic.

Coach Class: Tuesday and Friday from 7:15 to 8:00 or during lunch/recess time.

Infinite Campus: Student grade sheets will only be available via the Parent Portal Website.

Math Curriculum Outline: 7th Grade CCSS. Quizzes are usually on Friday and Tests are at the end of the Unit.

Unit 1A: Adding and Subtracting Rational Numbers

What are Rational Numbers (Identify and Square Roots)

Rational vs. Irrational numbers (Identify)

Adding just positive fractions, mixed numbers and decimals (How to find LCD)

Mixed to Improper and Improper to Mixed

Describe and Identify situations that show opposite quantities combine to make zero

Additive Inverse Property and Absolute value using number lines and Square Roots

Using number lines (vertical and horizontal to model adding and writing equations: Use temperatures, sea level, debit and credits, positive and negative atomic charges)

Apply properties of numbers: Commutative, Associative and Identity

Adding Rational Numbers Integers Absolute value method (Positive and Negative Integers)

Adding Rational Numbers (Positive and Negative Fractions and Mixed Numbers)

Adding Rational Numbers (Positive and Negative Decimals)

Subtracting Rational Numbers (Positive and Negative Fractions and Mixed Numbers) KCC

Subtracting Rational Numbers (Borrowing Method)

Subtracting Positive and Negative Decimals

Unit 1B: Multiplying and Dividing Rational Numbers

Multiplying Positive and Negative Integers (How to determine the sign)

Multiplying Rational Numbers Positive and Negative Fractions (Review Cross cancel and reduce)

Multiplying Rational Numbers Positive and Negative Mixed Numbers and Whole (Review Mixed to Improper)

Properties of Multiplication (Multiplicative Inverse, identify and distributive with -1)

Multiplying Positive and Negative Decimals

Dividing Positive and Negative Integers (How to determine the sign)

Dividing Positive and Negative Fractions and Mixed Numbers (Zero vs Undefined)

Converting Fractions to Decimals using Long Division (Terminating & Repeating)

Comparing Rational Numbers and Plotting on a Numbers Line

Ordering Rational Numbers from Least to Greatest with mixed formats

Order of Operations with all 4 operations

Unit 2A: Algebraic Expressions

Expanding Linear Expressions (Distributive Property)

Writing Equivalent Expressions by Combining Like Terms (CLT)

Writing Equivalent Expression by Expanding and then CLT

Algebraic Expressions Adding and Subtraction

Factoring Linear Expressions

Unit 2B: Equations and Inequalities

Solving Equations One Step

Solving Equations Two Step

Solving Equations with Expanding (Distributive Property)

Solving Equations with CLT

Solving Equations with Expanding and CLT

Use Variables to Construct and Solve Simple Equations

Solve 1 Step Inequalities

Solve 2 Step Inequalities

Graph Linear inequalities on a Number Line

Unit 3: Ratios and Proportional Relationships/Percentages

Writing and Understanding Ratios (Part to Part and Part to Whole)
Solving for the unknown in a Proportion
Determine if Two Ratios are Equivalent
Calculating Unit Rates with whole numbers \$10.00 for 4 how much for 1
Rational Numbers Complex Fractions (Write and Solve Complex Fractions)
Writing and Calculating Unit Rates with Complex Fractions
Identifying and Finding Proportional Relationships from a Graph (Also Constant Rate)
Identifying and Finding Proportional Relationships from a Table (Also Constant Rate)
Identifying and Finding Proportional Relationships from an Equation (Also Constant Rate)
Percentages (Percent Errors, Percent Increase/Decrease, Percent Equations)

Unit 4A: Geometry

Scale Drawings and Figures and Solving Problems
Area of Circles
Circumference of Circles
Drawing "Constructing" Geometric Shapes Can it be a Triangle based on Side Lengths
Can it be a Triangle based on Interior Angle Measurements
Angle Pairs Relationships Writing and Solving for the Unknown Angle Measurement

Unit 4B: Geometry

Cross Sections of Three-Dimensional Figures
Area of Rectangles and Squares
Area of Triangles
Area of Composite Figures
Surface Area of Three-Dimensional Figures (Rectangular Prisms, Triangular Prisms, Pyramids)
Surface Area of Composite Figures (Two- and Three-Dimensional Figures)
Volume of Three-Dimensional Figures (Rectangular Prisms, Triangular Prisms, Pyramids)

Unit 5: Probability

Understanding Probability (Probability Number Line Model (0 $\frac{1}{2}$ and 1)
Calculating Outcomes (Sample Space)
Probability of Simple Events with Tree Diagrams
Probability of Compound Events with Tree Diagrams
Using Probability to Make Predictions
Experimental vs. Theoretical Probability

Unit 6: Statistics

Understanding Sampling Methods and Populations
Making Inferences Based on Samples
Comparing Data Using Measures of Center (Mean and Median)
Comparing Data Using Measures of Variability (IQR Box and Whisker Plots)
Comparing Data Using Mean and Mean Absolute Deviation (Mean Absolute Deviation "MAD")

8th Grade Skills

Irrational Numbers
Powers and Roots
Exponents and Negative Exponents
Scientific Notation
Slope
Solve and Graph Equations in Slope Intercept Form
Solve and Graph Equations in Standard Form
Graphing Systems of Linear Equations
Determining the Solution of Systems of Linear Equations
Rotations, Reflections, Dilations and Translations