

HMS Math Curriculum (2014-2015)

7th Grade

1st SW:

Rational Numbers & Decimals
Relationships Between Sets of Rational #s
Operations with Rational Numbers
Calculate Sales & Income Tax
Constructing a Net Worth Statement
2-Step Equations (write, model & solve)
2-Step Inequalities: (write & solve)
Simple & Compound Interest
Planning a Budget
Making Purchasing Decisions

2nd SW:

Constant Rates of Change ($d=rt$)
Calculate Unit Rates
Constant of Proportionality ($k=y/x$)
Percent Applications
-% increase/decrease, % change, markup, markdown, total cost, multiple percents
Measurement Conversion
Linear Relationships ($y=mx+b$)
Personal Budgets

3rd SW:

Similar Shapes & Proportions
Probability: Simple & Compound Events
-sample space, complement, simulations, experimental, theoretical, predictions
Populations
-random & biased samples, inferences, comparing

4th SW:

Circumference of Circles
-ratios and pi ($\pi=c/d$)
Area of Circles
Area of Composite Figures
Volume of Prisms & Pyramids
-triangular & rectangular
Lateral & Total Surface Area

5th SW:

Graphs: Bar, Dot Plots, Circle, Box Plots
Compare Box & Dot Plots
-shapes, centers, & spreads
Personal Budgets
Making Connections
-Review topics learned during the year

6th SW:

Understanding Algebra
-Review topics learned during the year
Understanding Geometry
-Review topics learned during the year

8th Grade

1st SW:

Rational vs. Irrational #s
Relationships Between Sets of Real #s
Ordering Real #s
Standard & Scientific Notation
Mean Absolute Deviation
Generating Random Samples
Multi-Step Equations (write, model & solve)
Multi-Step Inequalities (write & solve)
Repaying Loans
Simple & Compound Interest

2nd SW:

Slope & Rate of Change
Slope & Y-Intercept
Unit Rate as Slope
Proportional Relationships ($y=kx$)
Non-Proportional Relationships ($y=mx+b$)
Direct Variation
Identify & Represent Functions
Describe Functions (linear vs. non-linear)
Solving Systems of Linear Equations (Graph)
Saving & Investing
Estimating College Costs & Payments

3rd SW:

Using Trend Lines to Make Predictions
Construct & Describe Scatterplots
Transformations & Congruence
-translations, reflections, rotations, dilations

4th SW:

Estimate & Locate Irrational #s
Pythagorean Theorem
-models, converse, & distance formula
Parallel Lines & Transversals
Angle Theorems for Triangles
Angle-Angle Similarity
Volume – cylinders, cones, & spheres
Lateral & Total Surface Area

5th SW:

Making Connections
-Review topics learned during the year
Analyzing Financial Situations
Financial Planning
-Review topics learned during the year

6th SW:

Understanding Algebra
-Review topics learned during the year