



# 7th Grade Math Syllabus

#### Team Katahdín ~ Pelletíer ~ 2020-21 ~ Trímester 1

Each trimester students will complete a wide array of mathematics units. Each unit explains the mathematical principles and reasoning which is covered in the student textbook. Students will be using a variety of resources to meet the daily learning targets including: Prentice Hall (Primary Text), Connected Mathematics, Ready Common Core, Khan Academy, DREAMBOX, etc. We will start the year by pre-testing standards to be taught and will culminate with a post test of standards at the end of each unit.

### Common Core Standards:

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# \*\*Priority Standards: Focus for Trimester 1:

The Number System/Rational Numbers (7.NS.1, 7.NS.2, 7.NS.3)

\*Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

**Expressions and Equations (EE.2, EE.4)** 

- Use properties of operations to generate equivalent expressions.
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

#### Expressions and Equations: (7 EE1, 7EE2, 7EE3, 7EE4)

- \*Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
- \*Rewrite an expression in different forms in a problem context in order to shed light on the problem and how the quantities in it are related.
- \*Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
- \*Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.

#### Geometry (7. G.1, 7.G.2, 7.G.3, 7.G.4, 7.G.5, 7.G.6)

- Draw, construct and describe geometrical figures and describe the relationships between them.
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

Ratios and Proportional Relationships (7.RP .1, 7.RP .2, 7.RP .3)

 Analyze proportional relationships and use them to solve real-world and mathematical problems.

## **Statistics and Probability**

(7.SP.1, 7.SP.2, 7.SP.3, 7.SP.4, 7.SP.5, 7.SP.6, 7.SP.7, 7.SP.8)

• Use random sampling to draw inferences about a population.

- Draw informal comparative inferences about two populations.
- Investigate chance processes and develop, use, and evaluate probability models.

# Ratio, Percents and Proportional Relationships (7RP, 7RP2, 7RP3, 7G1)

- \*Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.
- \*Recognize and represent proportional relationships between quantities.
- \*Use proportional relationships to solve multi-step ratio and percent problems.

## Mathematical Practices

- 1. Make sense of problems and persevere in solving them.
  - 2. Reason abstractly and quantitatively.
  - 3. Construct viable arguments and critique the reasoning of others.
  - 4. Model with mathematics.
  - **5.** Use appropriate tools strategically.
  - 6. Attend to precision.
  - 7. Look for and make use of structure.
  - 8. Look for and express regularity in repeated reasoning.

# Class Structure and Grading:

Class work/Homework 40% Assessment 30% Khan Academy/DreamBox 30%

## **Work Expectations:**

It is exceptionally important that students use their daily class-time wisely. They should come to class with all necessary materials. Students are expected to turn work in on the day it is due. If a student can not meet a due date, the student should talk to the teacher before the work is due. Late work will only be accepted until the next color day( Ex: Assignment given out on Monday/ Due on Thursday- Will be accepted the following Monday(with the best score being an 80) If not passed in on Monday this will result in a grade of "50"/NC(it will be coded with an (!) in Powerschool . If a student misses school he or she should seek out the missed work as soon as they return to school and talk to the teacher about when the missed work will be due. Students will have assigned classwork/homework from the teacher and will also have Khan Academy & Dreambox expectations/goals which are to be completed weekly. If Remote Learning occurs- all assignment/and grading expectations continue as set up in class.