## 6<sup>th</sup> Grade Mathematics 2023 - 2024 Course Syllabus Term 1

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Objectives: These are the College and Career Readiness Standards students are expected to master.

6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.

6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.

6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4(9 + 2)

6.NS.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.

6.NS.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates: a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., -(-3) = 3, and that 0 is its own opposite. c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

6.NS.7 Understand ordering and absolute value of rational numbers. a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret -3 > -7 as a statement that -3 is located to the right of -7 on a number line oriented from left to right. b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write -3 ° C > -7 ° C to express the fact that -3 ° C is warmer than -7 °. c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write |-30| = 30 to describe the size of the debt in dollars. d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.

6.NS.9 Apply and extend previous understandings of addition and subtraction to add and subtract integers; represent addition and subtraction on a horizontal or vertical number line diagram. a. Describe situations in which opposite quantities combine to make 0. b. Understand p + q as the number located a distance **lql** from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0. (are additive inverses). Interpret sums of integers by describing real world contexts. c. Understand subtraction of integers as adding the additive inverse, p - q is equal to p + (-q).

6.RP.1 Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.

6.RP.2 Understand the concept of a unit rate a/b associated with a ratio a:b with  $b \neq 0$ , and use rate language in the context of a ratio relationship.

6.RP.3 Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.

6.RP.3B Solve unit rate problems including those involving unit pricing and constant speed.

6.RP.3D Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

## **Tests and Grades**

**Grading:** A=90-100 B=80-89 C=70-79 D=65-69 F=below 65 I=incomplete Grading follows the policies of Biloxi Public Schools. A mid-term progress report and a report card following the end of each term are issued.

**Tests**: Tests are given upon completion of a unit. If absent, make-up work should be completed within 10 days of returning to school.

Unit 1 Decimal operations and multiplying/dividing fractions Assessment week of August 14th, 2023

Unit 2 Positive and Negative Number Line, Opposites, Absolute Value, + - Integers, GCF, and LCM week of September 4th, 2022

Unit 3 Ratios and Unit Rate week of September 18th, 2023

Common Term Assessment (CTA) Given the week of September 25<sup>th</sup>, 2023. The CTA will be comprehensive in nature, covering all objectives for the 1<sup>st</sup> nine weeks.

## \*Dates of the tests are subject to change\*

**Reteach and Retest:** All teachers will participate in re-teaching and re-testing for BUE students. All students who fail a math test will be retaught and retested. Students will be allowed to **retest** on **one** major department test, not activities, or the CTA (Common Term Assessment.) per subject area per 9 week period.

**Homework/Assignments/Projects:** Each day, students are expected to complete all unfinished classwork and/or review information taught that day in class. Projects are expected to be turned in by the due date provided. Points are deducted per day when projects are turned in late.

**Course Requirements:** Students are expected to complete all bell ringers and class work/homework assignments. Assigned projects are expected on the due date. Students are expected to prepare for and satisfactorily complete tests within the class period.

## Grading Scheme:

CTA (Common Term Assessment) = 5% Tests = 60% Activity = 35%

<b>On-Line Textbook:</b> 6 <sup>th</sup> grade Mat	Website: my.hrw.com th books on-line are titled:	ID: <u>6math72</u> MiF C1-Volume A	<b>Password:</b> <u>12345</u> & MiF C1 – Volume B
Important Dates:	Midterm Progress Reports:		August 25, 2023
	Common Term Assessment (CTA) Window:		September 25 - 29, 2023
	End of Term 1:		September 29, 2023
	Report Cards:		October 13, 2023