Course Outline

Course: Mathematics 1
Level: 9th & 10th grade (LLD)
Credits: 5
Revised: 1/09 (D. Wilson)
Prerequisites: none

Course Description:

Mathematics I has been designed as a required course for the Learning and Language Disabled class. The course is designed to enable every student to develop sufficient skills in whole numbers and fractions.

High Point Regional High School's curriculum and instruction are aligned to the state's Core Curriculum Standards and address the elimination of discrimination by narrowing the achievement gap, by providing equity in the educational programs and be providing opportunities for students to interact positively with others regardless of race, creed, color, national origin, ancestry, age, marital status, affectional or sexual orientation, gender, religion, disability, or socio-economical status.

CCCS Addressed:

- Standard 4.1 Number and Numerical Operations – All students will develop number sense and will perform standard numerical operations and estimations on all types of numbers in a variety of ways.

- Standard 4.2 Geometry and Measurement – All students will develop spatial sense and the ability to use geometric properties, relationships, and measurement to model, describe and analyze phenomena.

- Standard 4.5 Mathematical Processes – All students will use mathematical processes of problem solving, communication, connections, reasoning, representations, and technology to solve problems and communicate mathematical ideas.

Goals and Objectives

Goal: To review all concepts with adding and subtracting whole numbers.
Objectives:
To read and write whole numbers through billions.
To find the sum of two or more whole numbers.
To find the difference of two whole numbers.
To translate an addition or subtraction phrase into a variable expression.
To evaluate a variable expression involving addition or subtraction

Goal: To be able to round and compare whole numbers.

Objectives:

- To round a whole number to a given place.
- To compare and order whole numbers.
- To read and construct bar graphs.
- To read and construct line graphs.
- To identify missing facts in a problem and to determine if a given answer is reasonable.
- To compute elapsed time.

Goal: To be able to multiply whole numbers

Objectives:

- To multiply by numbers that are multiples of 10, 100, and 1000
- To estimate and find the product of a number and a one-digit number.
- To estimate and find the product of a number and a two-digit number.
- To estimate and find the product of a number and a three-digit number.
- To find products using the properties of multiplication.
- To evaluate variable expressions involving multiplication.
- To find the approximate number of Calories used during a given activity.

Goal: To be able to divide whole numbers.

Objectives:

- To find the quotient when dividing by a one-digit number.
- To use compatible numbers to estimate quotients.
- To estimate and find the quotient when dividing by a two-digit number.
- To estimate and find the quotient when dividing by a three-digit number.
- To translate a multiplication or division phrase into a variable expression.
- To solve problems using a four-step method.
- To convert units of time.
- To find averages.

Goal: To be able to have an understanding of the order of operations and number theory.

Objectives:

- To use the order of operations.
- To use the divisibility test in determining if one number is divisible by another.
- To find the greatest common factor of a set of numbers.
- To find the lease common multiple of a set of numbers.
- To compute with exponents.
- To evaluate variable expressions containing exponents.
- To use wholesale quantities.
- To use expressions of time.

Goal: To be able to develop a basic understanding of fraction concepts.

Objectives:

- To write a fraction that represents part of a region or part of a set.

To write a fraction equivalent to a given fraction.
To write a fraction in lowest terms.
To compare and order fractions.
To change mixed numbers to fractions and mixed numbers.
To solve problems using more than one operation.
To use fractions to describe parts of a day.

Goal: To be able to have an understanding of multiplying and dividing fractions.
Objectives:
To find and estimate products involving fractions.
To estimate products involving mixed numbers.
To find products involving mixed numbers.
To find quotients involving fractions.
To find and estimate quotients involving mixed numbers.
To apply fraction multiplication to recipes.

Goal: To be able to have an understanding of adding and subtracting fractions.
Objectives:
To find the sum or difference of fractions with common denominators.
To find the sum or difference of fractions with different denominators.
To find the sum of mixed numbers.
To find the difference of mixed numbers without renaming.
To find the difference of mixed numbers with renaming.
To solve a problem by identifying a number pattern.
To compute total hours worked.

Technology: Calculator – Casio-*fx*65, smart board

Materials: Test book: Essentials for High School Mathematics, Houghton Mifflin Company, 1989. Blackline master worksheets, smart board

Evaluation:

Homework based on	10 points
Class work based on	10 points
Quizzes based on	50 points
Tests based on	100 points
Notebook check	10 points