

Mercer County Schools

**PRIORITIZED
CURRICULUM**

Mathematics
Content Maps
Grade 6

Mercer County Schools



PRIORITIZED CURRICULUM

The Mercer County Schools *Prioritized Curriculum* is composed of West Virginia Content Standards and Objectives that have been identified as "Essential, Important, and Nice to Know." The Essential and Important objectives, which are aligned to the WESTEST, must be learned by the student in order to ensure his/her success. Therefore, the majority of instructional time (90% - 95%) must be devoted to the mastery of these objectives. To assist you with your instructional planning, the *Prioritized Curriculum* is divided into learning units (Content Maps) creating an instructional sequence and estimated time for delivering the intended/learned curriculum.

CONCEPT MAP

MATH - Grade 6

Suggested Sequence:

1. Data Analysis & Probability
2. Number Sense
3. Algebra
4. Measurement
5. Geometry

MATH (Grade 6) CONCEPT MAP

Estimated days to complete – 20

Key Concepts:

Construct and Interpret
Graphs/Tables

Measures of Central Tendency

Probability

Combinations

Percent/Ratios

Topic: Data Analysis and Probability
CSOs: 6.5.1 6.5.2 6.5.3 6.5.4 6.1.9

Enduring Understanding:
Sometimes sampling is better than counting everything.

Essential Question(s): How can we best show this data? How can patterns forecast the future? How can we make our predictions more reliable? Are you good at making choices? Why? Can you live without percents? Why?

Examples:

Surveys

Combinations
Subs/Pizza

Grades

Solving word problems
using percents

Key Vocabulary:

Data
Interval

circle graph
scale

line graph

bar graph

chart

mean

mode

median

range

tree diagram

combinations

measures of central tendency

MATH (Grade 6) CONCEPT MAP

Key Concepts:

Estimated days to complete – 60

Key Vocabulary:

Problem Solving in Context
Including 2-step problems

Topic: Number Sense
CSOs: 6.1.2 6.1.3 6.1.4 6.1.5 6.1.6
6.1.7 6.1.8 6.2.1 6.2.7 6.2.9

Mixed number

Factoring
Divisibility Rules

Enduring Understanding:

Numbers can be used to count, label, identify, measure, and describe things and experiences.

improper fraction

numerator

Conversion

Essential Question(s): Why is your thinking about solving a problem as important as the answer? In what ways is estimation useful when we are trying to solve a problem? How can you represent the same number in different ways? What are different ways of representing a number sentence? When is simplification helpful? harmful?

denominator

GCF
LCM

Properties

Prime Factorization
Divisibility

Prime
Composite

Estimation

Examples:

Creating a menu \$\$

Charts/Graphic Org.
(conversions)

Commutative
Associative
Distributive

integer

Problem solving with
estimation

order of operations

MATH (Grade 6) CONCEPT MAP

estimated days to complete - 30

Key Concepts:

Missing Elements using rules
and equations

Exponents

Functions

Proportions

Variables

Quadrants

Topic: Algebra

CSOs: 6.2.2 6.2.3 6.2.4 6.2.5 6.2.8 6.2.9

Enduring Understanding:

Demonstrates understanding of patterns, relations, and functions.

Essential Question(s): Why do these fit a pattern? Why would a scientist use scientific notation? Why is it important to continue to add patterns to the functions that we already know? Why use algebraic equations? How would quadrants be useful?

Examples:

mapping

number machine
activities

creating rules
writing an equation

solving word problems
using proportions

Key Vocabulary:

exponents

variables

functions

square roots

spreadsheets

cross-multiplication

x-axis
y-axis

ordered pairs

proportions

strategies

squares

MATH (Grade 6) CONCEPT MAP

estimated days to complete - 20

Key Concepts:

Scale drawing using proportions

Circumference

Volume
Surface Area

Perimeter
Area

Customary/Metric Units conversions

Topic: Measurement
CSOs: 6.4.2 6.4.3 6.4.4 6.4.5 6.4.6

Enduring Understanding:
Measurement helps us understand and describe our world.

Essential Question(s): How precise must our measurement be? Why? How accurate is it? How accurate does this need to be? When is it not necessary to be precise? Why do we need standard units of measure?

Examples:

Shopping

String & pie plate demonstration

Solving word problems using surface area and volume

Solving word problems using perimeter and area

Key Vocabulary:

pi

perimeter

circumference

area

formula

volume

surface area

conversion

scale drawings

capacity

weight
mass

metric system

MATH (Grade 6) CONCEPT MAP

estimated days to complete - 20

Key Concepts:

Classify Lines
Sum of Angles

Draw an Angle

Define:
Similar figures
Congruent figures

Define:
Parallel
Perpendicular
Intersecting
Skew

Topic: Geometry
CSOs: 6.3.1 6.3.2 6.3.4 6.3.6

Enduring Understanding:
Geometric figures and relationships can be represented numerically, graphically, and with models.

Essential Question(s): Can any geometric shape be transformed into any other? Why are angles so important? Why is it important to understand the relationship between size and shape?

Examples:

Protractor use

Creating pictures with geometric figures

Key Vocabulary:

parallel

perpendicular

intersecting

skew

degrees

complimentary

supplementary

protractor (PR)

similar

congruent