

Mercer County Schools

**PRIORITIZED
CURRICULUM**

Mathematics

Content Maps

Fourth Grade

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 4

Suggested Sequence:

1. Number Sense
2. Operations
3. Measurements
4. Data Analysis
5. Geometry
6. Algebra
7. Probability/Statistics

MATH (4) CONCEPT MAP

Estimated days to Complete: 20

Key Concepts:

Place value
Whole numbers
Fractions
Decimals

Compare/order

Rounding

Topic: Number Sense

Enduring Understanding:

Numbers allow people to represent quantities and sequences.

Essential Question(s):

How does the placement of digits determine the value of a number?

Examples:

Order decimals to
1000ths from least to
greatest

Round dollars to the
nearest dollar

Find equivalent fractions
with models

Key Vocabulary:

Period

Expanded form

Written form

Number words
(seven...million)

Place value names
(ones...millions)

MATH (4) CONCEPT MAP

Estimated days to Complete: 60

Key Concepts:

Whole numbers

Fractions

Strategies

Decimals

Topic:

Operations

CSO's: MA 4.1.5(N); 4.1.6(E); 4.1.7(I); 4.1.8(I);
4.1.9(I); 4.1.10(N); 4.1.11(I); 4.1.12(N); 4.1.13(E);
4.1.14(E); 4.1.15(E); 4.1.16(I); 4.1.17(E); 4.1.18(E);

Enduring Understanding:

There are rules for performing mathematical operations to ensure that the values obtained will be consistent.

Essential Question(s):

How do symbols and rules affect numbers?

Examples:

Symbols

Add/subtract

Multiply/divide

Problem solving

Key Vocabulary:

Properties

Multi-steps

Numerator

Denominator

Improper Fractions

Quotient

Divisor

Dividend

Mixed Numbers
Fractions/Decimals

Remainder

Factor

Multiple

MATH (4) CONCEPT MAP

Estimated days to Complete: 25

Key Concepts:

Length, weight, capacity

Area
Volume

conversions within a system
of measurement

time

Money sense

Topic:

Measurement

CSO's: MA 4.4.1; 4.4.2; 4.4.3; 4.4.4; 4.4.5; 4.4.6; 4.4.7;
4.4.8

Enduring Understanding:

Measurement helps us understand and describe the boundaries and limits of our world.

Essential Question(s):

How do you use measurement?

Examples:

Elapsed time

Conversions

Making change

Key Vocabulary:

Length – customary metric
Linear

Weight – customary metric
Mass

Capacity – customary metric

Area

Temperature
Fahrenheit/Celsius

Elapsed time

Rectangular prism

Linear Unit

Square Unit

Cubic Unit

MATH (4) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Graphs

Surveys

Ordered pairs

Topic: Data Analysis

CSO's: MA 4.3.7(E); 4.5.2(E); 4.5.3(E)

Enduring Understanding:

Displaying information helps to quickly interpret data.

Essential Question(s):

How can you create/use a visual display to interpret data?

Examples:

Charts

Graphs

One quadrant grid

Tables

Key Vocabulary:

Pictograph

Bar graph

Line graph

Circle graph

Tally

Frequency

Quadrant

Grid

Plot

Interval/Increment

Axis-X and Y

Key

MATH (4) CONCEPT MAP

Estimated days to Complete: 20

Key Concepts:

Figures - open

Figures - closed

Figures - solid

Lines/angles

Circle

Topic:
Geometry

Enduring Understanding:

Geometry can describe everything you see and touch.

Essential Question(s):

How can you use geometrical terms to describe your world?

Examples:

Identify figures in a classroom

Graph ordered pairs in a grid

Make a "net" example from a cereal box

Determine one, two or three dimensional figures

Key Vocabulary:

One-dimensional

Two-dimensional

Three-dimensional

Plane figure

Solid figure

Face, Edge, Vertices

Angle: Right, Acute, Obtuse

Center Point, Diameter, Radius, Degrees

Net

Line, Line Segment, Rays

Point, ordered pair

Perpendicular, Intersecting, Parallel

MATH (4) CONCEPT MAP

Estimated days to Complete: 15

Key Concepts:

Patterns

Input/output models

Number patterns and multiples

Topic:

Algebra

CSO's: MA 4.2.1(E); 4.2.2(E); 4.2.3(E); 4.2.4(N)

Enduring Understanding:

Algebraic equations can represent number patterns and mathematical functions.

Essential Question(s):

How can you use an equation with a variable to represent number patterns and mathematical functions?

Examples:

Correlation

Equations

Patterns

Key Vocabulary:

Multiples/Patterns

Variable

Equivalency

Number sentence/Equation

MATH (4) CONCEPT MAP

Estimated days to Complete: 5

Key Concepts:

Probability

Comparisons

Topic:
Probability and Statistics
CSO's: MA 4.5.4(E)

Enduring Understanding:
Statistical analyses often reveal patterns and outcomes.

Essential Question(s):
How can you use statistics and probability to predict outcomes?

Examples:

Tree diagram

Samplings

Key Vocabulary:

Outcome

Predict

Probable

Likely

Possible/Impossible

Random

Odds

Chance