

Mercer County Schools



**PRIORITIZED
CURRICULUM**

Mathematics

Content Maps

Second 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 2

Suggested Sequence:

1. Number Sense 0-20
2. Number Operations to 18
3. Number Sense 0-100
4. Patterns
5. Number Operations - part 2
6. Geometry
7. Number Sense 100-1000
8. Fractions
9. Graphs/data analysis
10. Time
11. Money
12. Measurement

ALL ESSENTIAL AND IMPORTANT CONCEPTS **MUST** BE ASSESSED

Revised May 21, 2005

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Number order (0-20)

Odd and even numbers (0-20)

Ones, tens (0-20)

Place value (0-20) standard form

Ordinal numbers (0-20)

Topic:

Number Sense (0-20)

CSO's: MA 2.1.1(E); 2.1.2(E); 2.1.3(E); 2.1.4(I);
2.1.5(E)

Enduring Understanding:

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

Essential Question(s):

What is a number?
Why do we have numbers?
How do we use numbers everyday?
What would happen if we didn't have numbers?
How many different ways can you represent (show) a number?

Examples:

Use of various manipulatives

Mountain Math Drops In a Bucket

Technology

Standard based instruction

Key Vocabulary:

Ones

Tens

Order

Compare

Greater than & Less Than

Digit

Estimate

Skip count

Odd & Even

Tally Marks

Standard

Ordinals

MATH (2) CONCEPT MAP

Estimated days to Complete: 15

Key Concepts:

Addition to 18

Subtraction to 18

Fact families

Properties

Problem solving

Topic:

Number Operations to 18

CSO's: MA 2.1.8(E); 2.1.9(E); 2.1.13(I)

Enduring Understanding:

Numbers are interrelated

Essential Question(s):

How can you represent the same number different ways?

How do you use clues to solve story problems?

Examples:

Flash cards

Timed test

Technology

Standards based instruction

Key Vocabulary:

Compare

Addend

Sum

Difference

Altogether

More than

Less than

Fact family

Number sentence

Digit

MATH (2) CONCEPT MAP

Estimated days to Complete: 15

Key Concepts:

Number order 0-100

Odd and even

Ones, tens, hundreds

Rounding to tens and hundreds

Place value (standard and expanded form)

Problem solving

Topic:

Number Sense (0-100)

CSO's: MA 2.1.1(E); 2.1.2(E); 2.1.3(E); 2.1.4(I)

Enduring Understanding:

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

Essential Question(s):

What is a number?
Why do we have numbers?
How do we use numbers everyday?
What would happen if we didn't have numbers?
What is the value of this digit?
How many different ways can you represent a number?

Examples:

Use various manipulatives

Mountain math
Drops in a Bucket

Technology

Standards based instruction

Key Vocabulary:

Hundreds

Expanded form

Rounding

Standard form

Digit

Odd

Even

MATH (2) CONCEPT MAP

Estimated days to Complete: 5

Key Concepts:

Growing/repeating patterns

Counting patterns (3's, 4's)

Pattern rules

Key Vocabulary:

Growing pattern

Repeating pattern

Skip counting

Odd/even

Predict

Topic:

Patterns

CSO's: MA 2.2.1(E); 2.2.3(I); 2.2.4(I); 2.2.5(I)

Enduring Understanding:

The identification of patterns and trends enables prediction

Essential Question(s):

What is a pattern?

How do we find patterns?

How do we show patterns?

What will happen next in the pattern?

Examples:

Pattern blocks

Related literature

Technology

Standards based instruction

MATH (2) CONCEPT MAP

Estimated days to Complete: 45

Key Concepts:

Addition of 2-and 3-digit numbers without regrouping

Addition of 2- and 3-digit numbers with regrouping

Subtraction of 2- and 3-digit numbers without regrouping

Subtraction of 2- and 3-digit numbers with regrouping

Topic:
Number Operations
CSO's: MA 2.1.8(E); 2.1.10(I); 2.1.11(E); 2.1.13(I)

Enduring Understanding:
Numbers are interrelated

Essential Question(s):
What is regrouping?
When do you regroup?
How do you use clues to solve story problem?

Examples:

Manipulatives

Work mats

Modeling

Technology
Standards based instruction

Key Vocabulary:

Ones

Tens

Hundreds

Regrouping

Sum

Difference

Addend

Operation

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Solid figures

Plane figures

Comparisons

Symmetry
Congruency

Position: rotated/reflected

Topic:

Geometry

CSO's: MA 2.3.1(E); 2.2.3(I); 2.3.4(I); 2.3.5(I);
2.3.7(E)

Enduring Understanding:

Both the real and the man-made world are designed using geometric figures

Essential Question(s):

Where is geometry in the natural world? The man-made world?
What is a plane figure?
What is a solid figure?

Examples:

Plane/solid figures

Geoboards
Tangrams

Technology
Standards based
instruction

Related literature

Key Vocabulary:

Rectangular prism

Sphere

Cone

Cylinder

Cube

Pyramid

Faces

Edges/sides

Angles

Corners

Symmetry & Congruency

Slide Rotate (Turn)
Reflect (Flip)

MATH (2) CONCEPT MAP

Estimated days to Complete: 15

Key Concepts:

Number order 100-1000

Odd and even

Ones, tens, hundreds, thousands

Place value (standard and expanded form)

Problem solving

Topic:

Number Sense (100-1000)

CSO's: MA 2.1.1(E); 2.1.2(E); 2.1.3(E); 2.1.4(I); 2.1.6(E)

Enduring Understanding:

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

Essential Question(s):

What is a number?
Why do we have numbers?
How do we use numbers everyday?
What would happen if we didn't have numbers?
What is the value of this digit?

Examples:

Use of various manipulatives

Mountain math
Drops in a Bucket

Technology

Standards based instruction

Key Vocabulary:

Thousands

Standard form

Expanded form

MATH (2) CONCEPT MAP

Estimated days to Complete: 5

Key Concepts:

Fractions

Fractional parts

Topic:
Fractions
CSO's: MA 2.1.7(E)

Enduring Understanding:

Parts of a whole can be represented as fractions

Essential Question(s):

How do we show an equal part of something?
How are numbers used to show fractions?

Examples:

Modeling with
manipulatives

Related literature

Technology

Standards based
instruction

Key Vocabulary:

Halves, fourths, thirds, sixths

Equal parts

Whole

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Types of graphs

Simple experiments to predict

Date

Questions

Problem solving

Topic:

Graphs and Data Analysis

CSO's: MA 2.5.2(E); 2.5.3(E); 2.5.4(I)

Enduring Understanding:

Data display often reveals patterns that are used to solve problems

Essential Question(s):

Why do we use graphs?

When do we use graphs?

When do symbols mean more than one?

Examples:

Various manipulatives

Standards based
instruction

Technology

Related literature

Key Vocabulary:

Prediction

Data

Horizontal bar graph

Picture graph

Pictograph

Certain

Impossible

Outcome

Survey

Table

Tally marks

Comparing

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Sequencing

Calendar

Quarter hour

Half hour

Problem solving

Topic:
Time

CSO's: MA 2.4.6(E); 2.4.7(E); 2.4.8(E); 2.4.9(E)

Enduring Understanding:

Telling time is an essential life skill

Essential Question(s):

Why is time important?

How do we use clocks to tell time?

How do we use calendars?

Examples:

Individual clocks and
calendars

Related literature

Technology

Standards based
instruction

Key Vocabulary:

Face

Analog

Digital

Sequence

a.m. / p.m.

Prediction

Intervals

Quarter hour

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Coin values (dollar)

Coin collections (dollar)

Representations

Change

Problem solving

Topic:

Money

CSO's: MA 2.4.10(E)

Enduring Understanding:

Money is a valuable tool in daily life
Different money is used in different countries.

Essential Question(s):

Why do we use money?
Why do we need standard values for the coins?
How do we use money in daily life?

Examples:

Play money

Career speaker

Technology

Standards based
instruction

Related literature

Key Vocabulary:

Coins

Penny

Nickel

Dime

Quarter

Dollar

Cents

Value

Amount/total

Price

Change

MATH (2) CONCEPT MAP

Estimated days to Complete: 10

Key Concepts:

Units of measure:
Standard
Metric

Length
Inches
Feet
Yard
Mile
Centimeter

Area
Perimeter

Capacity
Cups,pints,quarts,gallons

Weight
Pounds, kilograms

Temperature

Topic:

Measurements

CSO's: MA 2.4.1(E); 2.4.2(I); 2.4.3(I); 2.4.5(I)

Enduring Understanding:

Measurement helps us understand and describe our world

Essential Question(s):

Why do we measure?
Why do we have different units of measure?

Examples:

Use scale weights, rulers,
thermometers

Related literature

Technology
Standards based
instruction

Key Vocabulary:

Pounds/kilograms

Inches/Feet/Yard/Mile

Perimeter

Area

Cups/Pints/Quarts/Gallons

Centimeter

Temperature

Fahrenheit

Celsius