Warren County School District

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Mathematics – Grade 2

Course Number: 08223

Course Description and Prerequisites: Completion of Mathematics – Grade 1

This course will allow students to connect and strengthen previously learned mathematical concepts to new skills and real world applications. Students will be engaged in activities that focus on problem solving, number exploration, and data use. Math activities will provide students with the opportunity to develop and practice newly learned skills as they apply to real world experiences.

Suggested Grade Level: Second Grade

Length of Course: ____One Semester _X_ Two Semesters _____Other

Units of Credit: ____N/A_____

PDE *Certification and Staffing Policies and Guidelines (CSPG)* Required Teacher Certification(s) Elementary

Certification verified by WCSD Human Resources Department:
__X__Yes ____No

Board Approved Textbooks, Software, Materials:
Title:
Publisher:
ISBN #:
Copyright Date:
Date of WCSD Board Approval:

Suggested Supplemental Materials:
Clock, thermometer, ruler, pattern blocks, geometric shapes, attribute blocks, geoboard, color tiles, snap cubes, counters, tangram pieces, number cubes, spinner, coins & dollar bills, hundred chart, and base ten blocks.

Course Standards

PA Academic Standards:
2.1 Numbers, Number Systems and Number Relationships
2.2 Computation and Estimation
2.3 Measurement and Estimation
2.4 Mathematical Reasoning and Connections
2.5 Mathematical Problem Solving and Communication
2.6 Statistics and Data Analysis
2.7 Probability and Predictions
2.8 Algebra and Functions
2.9 Geometry
2.10 Trigonometry
2.11 Concepts of Calculus

WCSD Academic Standards: None

Industry or Other Standards: None

WCSD EXPECTATIONS

WCSD K-12 Expectations for instruction in writing, reading, mathematics and, technology have been developed and revised annually. The teacher will integrate all WCSD Expectations into this planned instruction

SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (I.E.P.) or Gifted Individual Education Plan (G.I.E.P.).

SPECIFIC EDUCATIONAL OBJECTIVES/CORRESPONDING STANDARDS AND ELIGIBLE CONTENT WHERE APPLICABLE

2.1 Numbers, Number Systems and Number Relationships

x – performance assessed during that semester

	Performance Indicator	1	2	Assessment
A.	• Recognize and write numbers to 1000. • Count by 2's, 5's, 10's, 25's, 100's .			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response • Self-evaluations • SuccessMaker • K-W-L • Homework Summative Assessments: • Portfolio • Test • Performance assessment
B.	Interpret whole numbers and fractions to represent quantities.			
C.	Write or represent numbers using manipulative such as hundred chart, base ten blocks, or number board.			
D.	Equate correct number of fractional parts to a whole number using manipulatives and drawings.			
E.	• Recognize and count pennies, nickels, dimes, quarters and one dollar bill. • Count and write a given amount of money up to $1.00 using different coin combinations. • Select coins to match a given amount of money. • Solve money problems using cent and dollar symbols.			
F.	Recognize even and odd numbers.			
G.	• Use concrete objects such as base ten blocks to represent numbers 1 through 1000.			
H.	Demonstrate one to one correspondence to 1000.			
I.	• Recognize numbers in ones, tens, and the hundreds place value. • Order numbers from least to greatest and greatest to least. • Write numbers in expanded form.			
J.				
K.				
L.	Demonstrate knowledge of basic addition and subtraction of facts to 20.			

2.2 Computation and Estimation

	Performance Indicator	1	2	Assessment
A.	• Apply addition and subtraction in everyday situations to 1000. • Solve story problems using concrete objects.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response • Self-evaluations • SuccessMaker • Interview • K-W-L • Homework Summative Assessments: • Portfolio • Test • Performance assessment
B.	• Solve two and three digit addition and problems with and without regrouping. • Solve two and three digit subtraction problems with and without regrouping.			
C.	Demonstrate the concept of multiplication as repeated addition using 2's, 5's and 10's.			
D.	Demonstrate the concept of division as repeated subtraction and as sharing 50.			
E.				
F.	Use estimation to determine the reasonableness of calculated answers to 1000.			
G.	Describe the process used to solve a problem.			

2.3 Measurement and Estimation

	Performance Indicator	1	2	Assessment
A.	• Compare measurable progression of time to the hour, ½ hour, ¼ hour and five-minute intervals. • Record and graph temperature.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response • SuccessMaker • Homework Summative Assessments: • Test • Performance assessment
B.	Determine and measure objects with standard and non-standard units.			
C.	Determine and compare elapsed time.			
D.	Read and represent time to the nearest ½ hour, ¼ hour, and five minutes using an analog and digital clock.			
E.	Determine the appropriate unit of measure.			
F.				
G.	Estimate and verify measurement.			

2.4 Mathematical Reasoning and Connections

	Performance Indicator	1	2	Assessment
A.	Make and verify predictions of real life objects.			Formative Assessments: • Observation • Evaluate written work • Performance assessment Summative Assessments: • Performance assessment
B.	Use measurement in everyday situations in the classroom.			

2.5 Mathematical Problem Solving and Communication

	Performance Indicator	1	2	Assessment
A.	• Create addition and subtraction word problems using real life situations, then solve. • Solve addition and subtraction word problems using charts and graphs. • Use appropriate problem-solving strategies to solve word problems.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response Summative Assessments: • Test • Performance assessment
B.	Represent the solution to a word problem with manipulatives.			
C.				

2.6 Statistics and Data Analysis

	Performance Indicator	1	2	Assessment
A.	• Gather data by observing with tallies, pictures, and counting. • Organize and display data using charts, bar graphs and pictographs.			Formative Assessments: • Observation • Evaluate written work • Problem-solving • Create an illustration • Hands on representation Summative Assessments: • Performance assessment
B.	Formulate and answer questions based on data shown on graphs.			
C.				
D.				

2.7 Probability and Predictions

	Performance Indicator	1	2	Assessment
A.	Predict the measure of likelihood of events.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Create an illustration • Hands on representation
B.	• Gather data using a spinner and record. • Recognize and explain a fair or unfair spinner.			
C.				

D.	Gather, compare and analyze data using probability concepts and phrases like most often and least often.			• Evaluate oral response Summative Assessments: • Test • Performance assessment

2.8 Algebra and Functions

	Performance Indicator	1	2	Assessment
A.	Identify, describe, and continue a simple number or shape pattern with attribute blocks.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response • SuccessMaker • Interview • K-W-L Summative Assessments: • Portfolio • Test • Performance assessment
B.	• Solve number sentences using concrete objects. • Solve number sentences with missing addends.			
C.				
D.	Demonstrate, explain, and solve story problems using addition or subtraction.			
E.	Use and interpret symbols such as ‹, ›, & = to model addition and subtraction.			
F.				
G.				
H.	Analyze and interpret data on a table or chart.			
I.				
J.	Locate points on a simple grid.			

2.9 Geometry

	Performance Indicator	1	2	Assessment
A.	Classify and label two- and three-dimensional geometric shapes.			Formative Assessments: • Observation • Evaluate written work • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response • SuccessMaker
B.	Build geometric shapes using concrete objects.			
C.	Draw two-dimensional geometric shapes.			
D.	Find and describe geometric figures in real life.			
E.	Identify and draw lines of symmetry in geometric figures.			
F.				
G.				
H.				

I.	Predict and represent the number of pieces required to cover a shape or figure using tangrams.			• Interview Summative Assessments: • Test • Performance assessment

2.10 Trigonometry

	Performance Indicator	1	2	Assessment
A.	Identify right angles in the environment.			Formative Assessments: • Observation • Evaluate oral response Summative Assessments: • Performance assessment
B.	Identify right angles and triangles using concrete objects.			

2.11 Concepts of Calculus

	Performance Indicator	1	2	Assessment
A.	• Place whole numbers in order from least to greatest. • Use › or ‹ to depict greater than and less than.			Formative Assessments: • Observation • Evaluate oral response • Evaluate written work • Create an illustration Summative Assessments: • Performance assessment
B.	Identify greatest and least values of data presented in data and graphs.			
C.				
D.	Identify and extend repeating and continuing patterns.			

ASSESSMENTS

PSSA Assessment Anchors Addressed: The teacher must be knowledgeable of the PDE Assessment Anchors and/or Eligible Content and incorporate them into this planned instruction. Current assessment anchors can be found at pde@state.pa.us.

Formative Assessments: The teacher will develop and use standards-based assessments throughout the course.

Portfolio Assessment: __X__ Yes ____ No

District-wide Final Examination Required: ____ Yes __X__ No

Course Challenge Assessment: N/A

REQUIRED COURSE SEQUENCE AND TIMELINE

Content Sequence	Dates
Measurement	Entire school year
Exploring Numbers and Patterns	
Addition	September
Subtraction	October
Patterns and numbers to 100	November
Money & time	December
Addition of two-digit numbers	January
Subtraction of two-digit numbers	February
Geometry, fractions, & probability	March
Exploring numbers and patterns to 1000	April
Addition & subtraction of three-digit numbers	May/June
Division & multiplication	May/June

WRITING TEAM:

Christine Duell Marcia Harrington Donna Holding

Jamie Lee Nicole Trembley

WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? ____ Yes __X__ No
2. Does this course issue a mark/grade for the report card?
   __X__ Yes____ No
3. Does this course issue a Pass/Fail mark? ____ Yes ___X_ No
4. Is the course mark/grade part of the GPA calculation?
   ____ Yes __X__ No
5. Is the course eligible for Honor Roll calculation?____ Yes __X__ No
6. What is the academic weight of the course?
   __X_ No weight/Non credit ____ Standard weight
   ____ Enhanced weight (Describe)_____