Warren County School District

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: Mathematics – Kindergarten

Course Number: 08023

Course Description and Prerequisites:

Mathematics is necessary for functioning and solving problems in everyday life. This course is designed to enhance student's beginning understanding of mathematical concepts. The foundation of basic concepts will be taught and supported through exploration of skills such as counting, shape exploration, measurement, number exploration, patterns, time, and money. All of these mathematical concepts are important for kindergarten and primary students to learn.

Suggested Grade Level: Kindergarten

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:
Clocks, pattern blocks, snap cubes, counters, coins, geoboard, and geometric shapes.

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
2.7 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.	• Count using whole numbers to twenty by ones. • Count using whole numbers to 100 by tens.	X	X	Formative Assessments: • Observation • Evaluate written work/response • Performance assessment • Tests/quizzes • Problem-solving • Create an illustration • Develop a model using manipulatives • Hands on representation • Evaluate oral response Summative Assessments: • Portfolio • Test • Performance assessment
B.	Use whole numbers to represent quantities.	X	X	
C.	• Write numerals in sequence from 1 to 10. • Represent equivalent forms of the same number through the use of concrete objects. • Represent equivalent forms of the same number through the use of drawings and symbols.	X X X	X X X	
D.				
E.	Identify the penny, nickel, and dime.		X	
F.				
G.	• Use concrete objects to represent the numbers 1 through 20. • Use concrete objects to group and order sets with numbers 1 through 20.	X X	X X	
H.	Use concrete objects to demonstrate understanding of one to one correspondence.	X	X	
I.	• Demonstrate an understanding of place value with manipulatives. • Label more than or less than.	X X	X X	
J.				
K.				
L.				

2.2 Computation and Estimation

	Performance Indicator	1	2	Assessment
A.	• Use manipulatives to calculate and explain single digit addition. • Use manipulatives to calculate and explain single digit subtraction.		X X	Formative Assessments: • Evaluate written work/response • Performance assessment • Observation • Problem-solving • Develop a model using manipulatives • Evaluate oral response • Hands on representation
B.	• Demonstrate an understanding of single digit addition in horizontal form. • Demonstrate an understanding of subtraction in horizontal form.		X X	
C.				
D.				

E.				Summative Assessments: • Test • Performance assessment
F.				
G.	Use concrete objects to represent a given number sentence.		X	

2.3 Measurement and Estimation

	Performance Indicator	1	2	Assessment
A.				Formative Assessments: • Evaluate written work/response • Performance assessment • Observation • Problem-solving • Develop a model using manipulatives • Evaluate oral response • Hands on representation Summative Assessments: • Portfolio • Test • Performance assessment
B.	• Determine the length and height of objects with non-standard units. • Use concrete objects to represent and estimate non-standard units up to 10.		X X	
C.	Name and order the days of the week.	X	X	
D.	• Tell time to the hour using an analog clock. • Tell time to the hour using a digital clock.		X X	
E.				
F.				
G.	Demonstrate and verify measurements using measurable characteristics such as using the words longer, shorter, hotter, colder, heavier, lighter, and the same.		X	

2.4 Mathematical Reasoning and Connections

	Performance Indicator	1	2	Assessment
A.	Make and verify predictions about the quantity, size, and shape of objects.		X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response Summative Assessments: • Performance assessment
B.				

2.5 Mathematical Problem Solving and Communication

	Performance Indicator	1	2	Assessment
A.	Use appropriate problem solving strategies such as guess and check, working backwards, and look for a pattern.		X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response • Problem-solving Summative Assessments: • Performance assessment
B.				
C.	Determine which method, materials, and strategy will be used to solve a problem, including paper and pencil and manipulatives.		X	

2.6 Statistics and Data Analysis

	Performance Indicator	1	2	Assessment
A.	Interpret and describe analysis of data on a given graph.	X	X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response Summative Assessments: • Performance assessment
B.				
C.				
D.				

2.7 Probability and Predictions

	Performance Indicator	1	2	Assessment
A.				Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response • Develop a model Summative Assessments: • Performance assessment
B.				
C.				
D.	Compare data and make predictions using concepts such as likely, not likely, and the same.	X	X	

2.8 Algebra and Functions

	Performance Indicator	1	2	Assessment
A.	Recognize, describe, extend, and replicate patterns up to 4 objects.	X	X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response • Develop a model Summative Assessments: • Performance assessment • Test
B.				
C.				
D.				
E.				
F.				
G.				
H.				
I.				
J.				

2.9 Geometry

	Performance Indicator	1	2	Assessment
A.	• Identify six basic shapes in two dimensions (circle, square, triangle, rectangle, oval, and diamond). • Label six basic two-dimensional shapes.	X	X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response • Develop a model using manipulatives • Problem-solving Summative Assessments: • Performance assessment
B.	Build geometric shapes using manipulatives.	X	X	
C.	Draw two-dimensional shapes.	X	X	
D.				
E.				
F.				
G.				
H.				
I.				

2.10 Trigonometry

	Performance Indicator	1	2	Assessment
A.	Construct a triangle, square, and rectangle on a geoboard.	X	X	Formative Assessments: • Observation • Develop a model using manipulatives Summative Assessments: • Performance assessment
B.				

2.11 Concepts of Calculus

	Performance Indicator	1	2	Assessment
A.	Identify least and greatest values 0-10.	X	X	Formative Assessments: • Evaluate written work/response • Observation • Evaluate oral response • Problem-solving Summative Assessments: • Performance assessment • Test
B.				

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
Shapes Sorting & Classifying	September
Numbers 1-5	October
Numbers 6-10	November
Patterns	December
Greater Numbers	January
Time and Money	February
Measurement	March
Addition	April
Subtraction	May/June

WRITING TEAM:

Mary DeSimone Linda Gibson Trina Massa Donna Trubic

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)_____