

Wilson Area School District Planned Course Guide

Title of planned course: Mathematics Grade 2

Subject Area: Math

Grade Level: 2nd

Course Description: This course will focus on grade 2 Common Core Standards. Students will learn addition and subtraction strategies and use these strategies to solve mathematical problems with whole number up to three digits. Students will also use these skills with money, measurements, and data. Students will also manipulate shapes and geometric figures.

Time/Credit for this Course: One Full Academic Year

Curriculum Writing Committee: Tara Buskirk and Robin Lanni

Curriculum Map

August/September: Operations and Algebraic Thinking:

- Understanding addition and subtraction
- Addition Strategies

October: Operations and Algebraic Thinking/ Numbers and Operations:

- Subtraction Strategies
- Working with Equal Groups
- Benchmark Test
- Place Value to 100

November: Numbers and Operations:

- Place Value to 100
- Mental Addition and Subtraction

December: Numbers and Operations:

- Adding two-digit numbers
- Benchmark Test
- Subtracting two-digit numbers

January: Numbers and Operations:

- Subtracting two-digit numbers
- Place Value to 1000

February: Numbers and Operations:

- Place Value to 1000
- Three-digit addition and subtraction

March: Geometry/Measurement and Data:

- Geometric Figures and equivalence
- Benchmark Test
- Money review

April: Measurement and Data:

- Money review
- Counting Money
- Operations with Money

May: Measurement and Data:

- Measuring Length
- Time, Graphs, and Data

June: End of year test, Step up to 3rd grade lessons

Wilson Area School District Planned Course Materials

Course Title: Mathematics Grade 2

Textbook: Envision Math

Supplemental Books: Materials that provide additional practice for students.
See page 89 in Teacher's Program Guide for list of math themed literature.

Teacher Resources:

- Teacher Manuals (one per topic)
- Teacher's Program overview
- PSSA test Prep
- Teacher's resource masters
- Student practice books (pages)

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 2

Unit: Operations and Algebraic Thinking - comparison, relationships, operations meanings and relationships, properties, basic facts and algorithms, practices, processes, and proficiencies

Time frame: 7 weeks

- Topic 1: Understanding addition and subtraction (9 days)
- Topic 2: Addition Strategies (11 days)
- Topic 3: Subtraction Strategies (10 days)
- Topic 4: Working with Equal Groups (6 days)

State Standards: 2.1.2B.1, 2.1.2.B.2, 2.2.2.A.1, 2.2.2.A.2, 2.2.2.A.3

Essential content/objectives: At end of the unit, students will be able to:

- Represent and solve problems involving addition and subtraction
- Add and subtract within 20
- Work with equal groups of objects to gain foundations for multiplication

Core Activities: Students will complete/participate in the following:

- Mathematical literacy stories
- Hands on learning through manipulatives
- Vocabulary activities
- Guided and independent practice
- Problem solving
- Differentiated practice

Extensions:

- Enrichment and practice worksheets
- Center games

Remediation:

- Center games
- Reteach and practice worksheets
- Student Manipulative kits

Instructional Methods:

- Direct instruction
- Modeling
- Problem based interactive learning
- Guided practice
- Differentiated instruction
- Visual learning

Materials & Resources:

- Student Manipulative kits
- Student books
- Student workbooks
- Teacher made worksheets for extra practice as needed
- Part/part/whole work mat

Assessments:

- Placement test
- Topic Tests
- Performance assessment
- Basic Facts Timed tests
- Benchmark test

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 2

Unit: Numbers and Operations in Base Ten - Number uses, classification, and representation, numbers and a number line, comparison and relationships, patterns, relations, and functions, operations meanings and relationships, properties, basic facts and algorithms, practices, processes, and proficiencies

Time frame: 17 weeks

- Topic 5: Place value to 100 (13 Days)
- Topic 6: Mental Addition (8 days)
- Topic 7: Mental Subtraction (7 days)
- Topic 8: Adding two-digit numbers (11 days)
- Topic 9: Subtracting two-digit numbers (18 days)
- Topic 10: Place Value to 1000 (15 days)
- Topic 11: Three-digit addition and subtraction (13 days)

State Standards: 2.1.2.B.1, 2.1.2.B.2, 2.1.2.B.3, 2.2.2.A.2, 2.2.2.A.1, 2.2.2.A.3

Essential content/objectives: At end of the unit, students will be able to:

- Understand place value to 1,000
- Use place value understanding to add two and three digit numbers
- Use place value understanding to subtract two and three digit numbers

Core Activities: Students will complete/participate in the following:

- Mathematical literacy stories
- Hands on learning through manipulatives
- Vocabulary activities
- Guided and independent practice
- Problem solving
- Differentiated practice
- Additional teacher made practice needed for adding/subtracting two and three digit numbers

Extensions:

- Enrichment and practice worksheets
- Center games

Remediation:

- Center games
- Student manipulative kits
- Reteach and practice worksheets

Instructional Methods:

- Direct instruction
- Modeling
- Problem based interactive learning
- Guided practice
- Differentiated instruction
- Visual learning

Materials & Resources:

- Student Manipulative kits
- Student books
- Student workbooks
- Teacher made worksheets for extra practice as needed
- Hundreds tens ones work mat

Assessments:

- Topic Tests
- Performance assessment
- Basic Facts Timed tests
- Benchmark test

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 2

Unit: Geometry - Equivalence, geometric figures, processes, practices, and proficiencies

Time frame: 2 weeks

- Topic 12: Geometry (10 days)

State Standards 2.3.2.A.1, 2.3.2.A.2

Essential content/objectives: At end of the unit, students will be able to:

- Identify and count flat surfaces, edges, and vertices
- Relate plane shapes to solid figures
- Identify polygons and list their attributes
- Make and cut shapes apart
- Divide shapes into equal parts
- Identify equal parts and wholes of shapes

Core Activities: Students will complete/participate in the following:

- Mathematical literacy stories
- Hands on learning through manipulatives
- Vocabulary activities
- Guided and independent practice
- Problem solving
- Differentiated practice

Extensions:

- Enrichment and practice worksheets
- Center games

Remediation:

- Center games
- Reteach and practice worksheets

Instructional Methods:

- Direct instruction
- Modeling
- Problem based interactive learning
- Guided practice
- Differentiated instruction
- Visual learning
- Hands on instruction with 3-dimensional shapes and magnetic shapes

Materials & Resources:

- Student Manipulative kits
- Student books
- Student workbooks
- Teacher made worksheets for extra practice as needed

Assessments:

- Topic Tests
- Performance assessment
- Basic Facts Timed tests
- Benchmark test
- End of the year test

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 2

Unit: Measurement and Data - Equivalence, measurement, data collection and representation, comparison and relationships, operations meanings and relationships, estimation, basic facts and algorithms, practices, processes, and proficiencies

Time frame: 9 weeks

- Topic 13: Counting Money (19 days)
- Topic 14: Money (7 days)
- Topic 15: Measuring Length (11 days)
- Topic 16: Time, Graphs, Data (8 days)

State Standards 2.4.2.A.1, 2.4.2.A.2, 2.4.2.A.3, 2.4.2.A.4, 2.4.2.A.6

Essential content/objectives: At end of the unit, students will be able to:

- Measure and estimate lengths in standard units
- Relate addition and subtraction to length
- Count, add and subtract money
- Solve word problems involving money
- Tell and write time in hours, half hours, and five minutes using analog and digital clocks
- Represent and interpret data using bar graphs, pictographs and line plots

Core Activities: Students will complete/participate in the following:

- Mathematical literacy stories
- Hands on learning through manipulatives
- Vocabulary activities
- Guided and independent practice
- Problem solving
- Differentiated practice
- Additional teacher made practice for money and telling time

Extensions:

- Enrichment and practice worksheets
- Center games

Remediation:

- Center games
- Reteach and practice worksheets
- Student manipulative kits

Instructional Methods:

- Direct instruction
- Modeling
- Problem based interactive learning
- Guided practice
- Differentiated instruction
- Visual learning
- Hands on instruction with Judy Clocks and money from student kits

Materials & Resources:

- Student Manipulative kits
- Student books
- Student workbooks
- Teacher made worksheets for extra practice as needed

Assessments:

- Topic Tests
- Performance assessment
- Basic Facts Timed tests
- Benchmark test