

Wilson Area School District Planned Course Guide

Title of planned course: Mathematics Grade 1

Subject Area: Math

Grade Level: 1st

Course Description: Provide all students with hands on math experiences appropriate to their cognitive development that will serve as a solid foundation for more advanced ideas in the future.

Time/Credit for this Course: One Full Academic Year

Curriculum Writing Committee: Megan Vogel, Carol Monkiewicz, and Patti Ulshafer

Curriculum Map

<u>August:</u>	Math Readiness
<u>September:</u>	Topic 1: Understanding Addition Topic 2: Understanding Subtraction
<u>October:</u>	Topic 3: Five and Ten Relationships Topic 4: Addition and Subtraction Facts to 12
<u>November:</u>	Topic 4: Addition and Subtraction Facts to 12 Topic 5: Addition Facts to 20
<u>December:</u>	Topic 6: Subtraction Facts to 20 Topic 7: Counting and Number Patterns to 120
<u>January:</u>	Topic 8: Tens and Ones Topic 9: Comparing and ordering Numbers to 100
<u>February:</u>	Topic 10: Adding and Subtracting with Tens and Ones Topic 11: Subtracting with Tens and Ones
<u>March:</u>	Topic 12: Length Topic 13: Time
<u>April:</u>	Topic 14: Using Data to Answer Questions Topic 15: Geometry
<u>May/June:</u>	Topic 15: Geometry Topic 16: Fractions and Shapes

Wilson Area School District Planned Course Materials

Course Title: Mathematics Grade 1

Textbook: enVisionMath 2012 edition
Scott Foresman – Addison Wesley

Supplemental Books: Common Core Reteaching and Practice Book

Teacher Resources:

- Manuals & resource books
- Manipulatives
- Student books
- Website

Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Understanding Addition

Time frame: 10-12 days

State Standards: 2.1.1.B.1, 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Recognize two-part spatial patterns of numbers
- Recognize parts of a number as a strategy for addition
- Recognize parts of the number 8
- Recognize parts of the number 9
- Write addition expressions and number sentences to find the whole, given two parts
- Write addition sentences to solve stories about joining
- Add in any order
- Use objects to solve story problems

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

- Putting 2 patterns together to find a number up to 10
- Make two parts of 6 and 7
- Make two parts of 8
- Make two parts of 9
- Write addition number sentences to show the parts of the whole
- Write addition sentences about joining groups
- Add the same numbers in any order and compare the sums
- Use objects to solve problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

- Inquiry and guided practice
- Hands-on active learning (manipulatives)
- Multisensory methods
- Student-to-student interaction (small groups/ centers)
- Discourse and reflective thinking (journals/ problem solving)

Materials & Resources:

- Teacher manual
- Manipulative kits
- Student lesson packets
- Leveled masters
- enVision website

Assessments:

- Teacher observation - anecdotal notes record keeping form
- Student practice sheets
- Checklists
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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Understanding Subtraction

Time frame: 14-15 days

State Standards: 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Solve problems by finding the missing part
- Find a missing part of 8 when one part is known
- Use subtraction to find the missing part of 9 when one part is known
- Write and solve subtraction number sentences
- Tell and act out stories about taking away to find how many are left
- Tell and act out comparing stories to find how two groups are different
- Find the missing part when one part and the whole are given
- Write subtraction sentences to represent different kinds of subtraction stories
- Write related addition and subtraction facts
- Write and identify different subtraction sentences that are true for the same model
- Use counters to act out and solve subtraction story problems

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

- Find missing parts of 6 and 7
- Find a missing part of 8
- Find missing parts of 9
- Write subtraction number sentences after finding a missing part
- Write subtraction sentences to describe stories about taking away
- Write subtraction sentences to compare two groups
- Write subtraction sentences to describe stories about finding a missing part
- Practice using cubes or pictures and writing subtraction sentences to describe three different kinds of stories
- Use red/yellow counters to show how addition and subtraction facts are related
- Write subtraction sentences, moving around the equals sign
- Use counters to solve subtraction story problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Five and Ten Relationships

Time frame: 6-8 days

State Standards: 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Use counters and a ten-frame to model numbers up to 10
- Recognize numbers on a ten-frame, noting the relationship of those numbers to 5 and 10
- Show 10 as two parts
- Use counters and a part-part-whole mat to find missing parts of 10
- Make tables to solve problems

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

- Draw counters on a ten-frame to show numbers up to 10
- Write the numbers shown on a ten-frame
- Put counters on a ten-frame to show numbers up to 10
- Put counters on a part-part-whole mat to find the missing parts of 10
- Create a table to solve a story problem

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

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- Small group / 1 on 1

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Addition and Subtraction Facts to 12

Time frame: 13-14 days

State Standards: 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Count on to add, starting with the greater number
- Recognize doubles as a strategy for remembering sums
- Use doubles facts to learn near doubles facts
- Use a ten-frame to write addition facts with 5
- Use two ten-frames to model addition facts
- Master concepts of 0 less than, 1 less than, and 2 less than when subtracting 0, 1, or 2
- Use doubles addition facts to master related subtraction facts
- Understand how addition facts to 8 relate to subtraction facts to 8
- Write related addition and subtraction facts to 12
- Draw pictures to solve addition story problems

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

- Add 0, 1, or 2 to find the sum using the counting on strategy
- Add doubles
- Add near doubles
- Use ten-frames to help with addition to 10
- Use ten-frames to think of addition facts as 10 and some more
- Subtract 0, 1, and 2 using chips or a number line
- Solve subtraction problems using doubles
- Solve subtraction problems using addition and the missing part
- Draw pictures to solve word problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Addition Facts to 20

Time frame: 12-13 days

State Standards: 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Recognize the doubles relationship and use it as a strategy for remembering addition facts with two like addends
- Master addition facts where the addends are 1 apart
- Master addition facts where the addends are 2 apart
- Solve two-question problems by using the answer to the first question to answer the second question
- Master addition facts where one addend is close to 10
- Master addition facts where one addend is 9
- Master addition facts where one addend is 8
- Use the associative and commutative properties to add three numbers
- Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20

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

- Identify and show doubles facts to 20
- Use doubles facts to find the sums of doubles-plus-1 facts
- Use doubles facts to find the sums of doubles-plus-2 facts
- Solve word problems with 2 parts
- Draw counters to make 10 to help add one-digit numbers with sums greater than 10
- Draw counters in ten-frames to make 10 to add 9
- Draw counters in ten-frames to make 10 to add 8
- Use doubles or make 10 to add three numbers
- Use doubles or make 10 to add three numbers in word problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Subtraction Facts to 20

Time frame: 10-11 days

State Standards: 2.2.1.A.1, 2.2.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Make 10 to subtract
- Make 10 to solve subtraction story problems
- Find subtraction facts to 18 and describe the relationship between addition and subtraction
- Use a part-part-whole model to find the subtraction facts and addition facts in a fact family
- Use a related addition fact to find the missing part in a subtraction problem
- Use related addition facts to solve subtraction problems
- Draw pictures and write number sentences to solve addition and subtraction story problems

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

- Make a 10 to help solve subtraction facts
- Make a 10 to help solve subtraction facts in story problems
- Use a part-part-whole model to write related addition and subtraction facts with greater numbers
- Write fact families when given a whole and two parts
- Use a part-part-whole model and addition to solve subtraction problems
- Decide what addition fact will help to solve subtraction problems
- Draw pictures and write number sentences to solve problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediations:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Counting and Number Patterns to 120

Time frame: 8-9 days

State Standards: 2.1.1.B.2, 2.1.2.B.1, 2.1.2.B.2, 2.1.2.B.3

Essential Content/Objectives: At end of the unit, students will be able to:

- Read, count, and write numbers 11 to 19
- Show numbers 11 to 19 as 1 or 2 more or fewer than another number
- Count groups of 10, up to 12 tens, and write how many
- Count on a hundred chart
- Skip count to find the total number of items arranged in sets of 2s, 5s, and 10s
- Solve problems by finding patterns in a table of related number pairs

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

- Make numbers 11-19 using ten frames and counters
- Use counters to find 1 more, 2 more, 1 fewer, 2 fewer than a given number
- Count groups of tens using ten frames
- Find patterns on a hundred chart
- Skip count to find the total number of objects
- Solve problems using number patterns

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

- Inquiry and guided practice
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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Tens and Ones

Time frame: 8-9 days

State Standards: 2.1.1.B.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Read and write two-digit numbers as groups of 10 and some left over
- Count groups of 10, up to 10 tens, and write how many
- Use groups of tens to show and write a given two-digit number
- Model a two digit number and write its expanded form
- Break apart a ten to make 10 ones and write new representations in expanded form
- Use groups of tens and ones to show and write a given two-digit number

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

- Show numbers as groups of tens and ones
- Use groups of ten to name and count numbers
- Use objects to show the tens and ones in a two-digit number and write the number
- Show a two-digit number as the value of the tens plus the value of the ones
- Use tens and ones to make numbers in different way
- Solve problems by making an organized list

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Comparing and Ordering Numbers to 100

Time frame: 7-8 days

State Standards: 2.1.1.B.2, 2.1.1.B.3

Essential Content/Objectives: At end of the unit, students will be able to:

- Write the numbers that are 1 more or 1 less and 10 more or 10 less than a two-digit number
- Use a hundred chart to show the relationships of 1 more than, 1 less than, 10 more than, and 10 less than a given number
- Compare two-digit numbers using symbols
- Order numbers from least to greatest, given 3 two-digit numbers
- Make an organized list to problem solve

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

- Add or subtract 1 or 10 from a two-digit number
- Find numbers that are 1 more, 1 less, 10 more, 10 less than a given number using a hundred chart
- Use symbols to show that one number is greater than, less than, or equal to another number
- Order 3 two-digit numbers from least to greatest
- Solve problems by making a list of numbers based on clues given

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Adding with Tens and Ones

Time frame: 8-9 days

State Standards: 2.1.1.B.3

Essential Content/Objectives: At end of the unit, students will be able to:

- Add two multiples of 10 for sums to 100
- Use a hundred chart to add multiples of 10 to two-digit numbers
- Add a multiple of 10 to a two-digit number
- Add two-digit numbers and multiples of ten mentally
- Add one-digit numbers to two-digit numbers with and without regrouping and record the sum in horizontal form
- Solve problems by drawing pictures and writing number sentences

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

- Use basic facts to add tens
- Use a hundred chart to add tens
- Add tens to a two digit number using ten rods
- Add tens to two digit numbers mentally
- Identify if regrouping is needed to find the sum
- Regroup when adding a one-digit number to a two-digit number
- Draw a picture and write a number sentence to solve problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

- Inquiry and guided practice
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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Subtracting with Tens and Ones

Time frame: 8-9 days

State Standards: 2.1.1.B.3

Essential Content/Objectives: At end of the unit, students will be able to:

- Subtract 10 from multiples of 10 in the range 10-90
- Use a hundred chart to subtract multiples of 10 from two-digit numbers
- Subtract a multiple of 10 from a two-digit number
- Subtract multiples of 10 from two-digit numbers using mental math
- Subtract one-digit numbers from two-digit numbers with and without regrouping and record the difference in horizontal form
- Draw a picture and write a number sentence to solve subtraction story problems

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

- Solve subtraction problems with ten rods.
- Solve subtraction problems using a hundred chart
- Use cubes to build an understanding that when you subtract tens from a number, only the tens digit changes.
- Subtract tens from a two-digit number using mental math.
- Regroup using cubes
- Solve word problems by drawing a picture and writing a number sentence

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Length

Time frame: 9-10 days

State Standards: 2.4.1.A.1

Essential Content/Objectives: At end of the unit, students will be able to:

- Compare and order length of objects
- Indirectly compare objects by length
- Estimate, measure, and compare lengths of objects using a nonstandard unit
- Use connecting cubes as nonstandard units to measure and compare the lengths and heights of objects
- Use nonstandard units to measure the length of different objects
- Estimate and measure the lengths of objects in different units

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

- Compare and order length using objects
- Estimate and measure length using a standard third object
- Estimate and measure length using cubes and paperclips
- Compare and order objects by height using cubes and paperclips
- Solve problems using cubes and paperclips

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Time

Time frame: 6-7 days

State Standards: 2.4.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Identify the hour and minute hands on a clock and tell time to the hour
- Tell and write time to the hour using digital and analog clocks
- Show and tell time to the half hour
- Read and use a schedule

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

- Identify the hour and minute hands
- Tell and write time to the hour on a digital and analog clock
- Tell and write time to the half hour on a digital and analog clock
- Draw the hour and minute hands on an analog clock
- Match time to the hour and half hour on digital and analog clocks
- Read, use, and create a schedule
- Use clocks and schedules to solve problems

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Using Data to Answer Questions

Time frame: 9-10 days

State Standards: 2.4.1.A.4

Essential Content/Objectives: At end of the unit, students will be able to:

- Use a real-object graph to answer questions and draw conclusions
- Use a picture graph to answer questions and draw conclusions
- Use a bar graph to answer questions and draw conclusions
- Record data using tally marks
- Collect a set of data and organize it in a real graph
- Organize and analyze data using a picture graph
- Use data in a table to complete a bar graph

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

- Create and use data from a real-object graph (with counters, cubes) to answer questions
- Create and use data from a picture graph to answer questions
- Create and use data from a bar graph to answer questions
- Collect and record data in a tally chart from pictures and spinners; use data from a tally chart to answer questions
- Create picture, bar, and real-object graphs from tally charts
- Solve problems using tally charts and real-object, picture, and bar graphs

Extensions:

- Use of Enrichment or Challenge Activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Geometry

Time frame: 13-14 days

State Standards: 2.3.1.A.1

Essential Content/Objectives: At end of the unit, students will be able to:

- Identify and name standard plan shapes and recognize them in the environment
- Make organized lists to solve problems
- Sort plane shapes and identify their properties
- Combine plane shapes to make different pictures
- Combine two-dimensional geometric shapes to make new two-dimensional geometric shapes
- Identify and name standard geometric solids and recognize them in the environment
- Count the number of flat surfaces and vertices on geometric solids
- Identify geometric solids (sphere, cone, cylinder, rectangular, prism, and cube), and sort by various attributes
- Combine solid figures to make new solid figures
- Identify defining and non-defining attributes of plane shapes and solid figures

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

- Identifying and sort plane shapes (triangle, circle, hexagon, trapezoid, rectangle, square) using real life objects
- Use pattern blocks to show different ways they combine to make other shapes
- Solve problems by making lists
- Sort, label, and draw shapes by attributes (sides and corners) using pattern blocks
- Use pattern blocks to make shape pictures
- Use pattern blocks to make new two-dimensional shapes
- Identify and name standard geometric solids in real life objects
- Identify and count flat surfaces and vertices on real life geometric solids
- Sort geometric solids by surfaces and vertices
- Use and draw solid geometric shapes to make new solid figures
- Solve problems by making generalizations about shapes

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

- Inquiry and guided practice
- Hands-on active learning (manipulatives)
- Multisensory methods
- Student-to-student interaction (small groups/ centers)
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Materials & Resources:

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Assessments:

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Curriculum Scope & Sequence

Planned Course: Mathematics Grade 1

Unit: Fractions and Shapes

Time frame: 5-6 days

State Standards: 2.3.1.A.2

Essential Content/Objectives: At end of the unit, students will be able to:

- Determine whether a shape is divided into equal or unequal parts
- Describe equal parts of a shape
- Identify halves and fourths of circles and rectangles
- Draw pictures to solve problems related to parts of a whole

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

- Draw lines to make equal parts in shapes
- Label shapes with equal or non-equal parts
- Write the number of equal shaded parts of a shape
- Label circles as rectangles with halves and fourths
- Solve problems by drawing shapes with parts

Extensions:

- Use of enrichment or challenge activities
- Activities at centers or stations

Remediation:

- Use of differentiated instruction/intervention activities
- Small group / 1 on 1

Instructional Methods:

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