Curriculum Unit Template

Taneyville R-II School
2019-20

Grade Level: 3rd grade   **Subject**: Math   **Quarter**: 1st Quarter

Unit Title: Unit 1 - Numeration: Place Value

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.NBT.A.1 - Round to the nearest 10 or 100 3.NBT.A.2 - Read, write, and identify whole numbers within 100,000 using base ten numerals, number names, and expanded form	-Digits -Place value -Standard form -Expanded form -Word form -Period -Compare -order	Lesson 1 - Representing Numbers ● Read and write 3-digit and 4-digit numbers ● Standard form ● Expanded form ● Word form Activities: ● Place value chart ● Manipulatives - Place Value blocks ● WS 1-1 Lesson 2 - Ways to Name Numbers ● Name numbers in different ways Activities: ● Place value chart ● Manipulatives - Place Value blocks ● WS 1-2	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 1 Tests

		Lesson 3 - Greater Numbers	
		• Read and write numbers in the ten and hundred thousands Activities: • Place value chart • Manipulatives - Place Value blocks • WS 1-3 Lesson 4 - Understanding Number Lines • Locate and compare whole numbers on a number line Activities: • Number line WS • WS 1-4 Lesson 5 - Counting on the Number Line • Identify patterns on a number line Activities: • Number line WS • WS 1-5 Lesson 6 - Comparing Numbers • Compare 3-digit and 4-digit whole numbers Activities: • Place value chart • Manipulatives - Place Value blocks • WS 1-6 Lesson 7 - Ordering Numbers • Order 3-digit and 4-digit numbers Activities: • Place value chart	

		• Manipulatives - Place Value blocks • WS 1-7 Lesson 8 - Make an Organized List • Make an organized list to represent information given in a problem	
Unit 2- Number Sense: Addition and Subtraction			
Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.NBT.A.2 - Read, write, and identify whole numbers within 100,000 using base ten numerals, number names, and expanded form 3.NBT.A.3 - Demonstrate fluency with addition and subtraction within 1000 **Supporting Standards** 3.NBT.A.1 - Round to the nearest 10 or 100 3.RA.D.10 - Interpret reasonableness of answers using estimation 3.RA.E.11 - Identify arithmetic	-Addends -Sum -Commutative (0rder) Property of Addition -Associative (Grouping)Property of Addition -Identity (Zero) Property of Addition - Fact Family - Difference - Round - Estimate - compatible numbers - equation - reasonableness	Lesson 1 - Addition Meaning and Properties • Use concrete materials and concepts of addition to model the Commutative, Associative, and Identity Properties of Addition Activities: • WS 2-1 Lesson 2 - Subtraction Meanings • Recognize subtractions when subtraction is used to solve a problem and write number sentences Activities: • WS 2-2	• Three, two, one show me using dry erase marker boards • Quick Checks • Topic 2 Tests

| patterns and explain using properties of operations

3.RA.D.9 - Write and solve two-step problems involving variables using any of the four operations | | Lesson 3 - Using Mental Math to Add
● Solve problem by adding
Activities:
● WS 2-3

Lesson 4 - Using Mental Math to Subtract
● Solve problems by adding
Activities:
● WS 2-4

Lesson 5 - Rounding
● Round two-digit and three-digit whole numbers to the nearest ten or hundred

Activities:
● Rule: Find your place, go next door, five or higher add one more. If it's less let it rest
● WS 2-5

Lesson 6 - Estimating Sums
● Solve problems by estimating sums

Activities:
● WS 2-6

Lesson 7 - Estimating Differences
● Solve problems by estimating differences
Activities:
● WS 2-7 | |

		Lesson 8 - Making Sense of Addition and Subtraction Equations
		    ● Decide whether both sides of an equation are equal
		    ● Determine the value of an unknown number in an equation
		Activities:
		    ● WS 2-8
		
		Lesson 9 - Reasonableness
		    ● Solve problems and check answers for reasonableness
		Activities:
		    ● WS 2-9	

Unit 3 - Using Place Value to Add and Subtract

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.NBT.A.2 - Read, write, and identify whole numbers within 100,000 using base ten numerals, number names, and expanded form 3.RA.D.9 - Write and solve two-step problems involving variables using any of the four operations 3.RA.D.10 - Interpret reasonableness of answers using estimation **Supporting Standards** 3.NBT.A.1 - Round to the nearest 10 or 100	-algorithm	Lesson 1 - Adding with an Expanded Algorithm ● Solve 3-digit addition problems using an expanded algorithm Activities: ● WS 3-1 Lesson 2 - Models for adding 3-Digit Numbers ● Add 3-digit numbers using place value blocks or pictures ● Record the results using the standard addition algorithm Activities: ● WS 3-2 Lesson 3 - Adding 3-Digit Numbers ● Add 3-digit numbers using paper and pencil methods Activities: ● WS 3-3 Lesson 4 - Adding 3 or More Numbers ● Add 3 or more 2 and 3-digit numbers using paper and pencil methods Activities: ● WS 3-4	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 3 Tests

| | | Lesson 5 - Draw a Picture
   ● Draw a picture to solve a problem
Activities:
   ● WS 3-5

Lesson 6 - Subtracting with an Expanded Algorithm
   ● Solve 3-digit subtraction problems by breaking them into smaller, easier, subtraction problems

Lesson 7 - Models for Subtracting 3- Digit Numbers
   ● Subtract 3-digit numbers using place-value blocks or pictures
   ● Record results using the standard subtraction algorithm
   ● Borrowing/Regrouping
Activities:
   ● WS 3-7

Lesson 8 - Subtracting 3-Digit Numbers
   ● Subtract 3-digit numbers using paper and pencil methods
   ● Borrowing/Regrouping
Activities:
   ● WS 3-8

Lesson 9 - Subtracting Across Zero
   ● Subtract 3-digit numbers using paper and pencil methods
   ● Borrowing/Regrouping
Activities:
   ● WS 3-9

Lesson 10 - Draw a Picture and Write a Number Sentence
   ● Solve problems by writing a | |

		number sentence based on a picture they have drawn describing the picture Activities: ● WS 3-10	

Unit 4 - Meanings of Multiplication

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.RA.A.1 - Interpret products of whole numbers 3.RA.A.3 - Describe in words or drawings a problem that illustrates a multiplication or division situation 3.RA.A.4 - Use multiplication and division within 100 to solve problems 3.RA.B.6 - Apply properties of operations as strategies to multiply and divide	-Multiplication -Factors -Product -Array -Commutative (Order) Property of Multiplication	Lesson 1 - Multiplication as Repeated Addition ● Write multiplication number sentences for given equal group situations using the x symbol Activities: ● WS 4-1 Lesson 2 - Arrays and Multiplication ● Write multiplication sentences for arrays and use arrays to find products Activities: ● WS 4-2 Lesson 3 - The Commutative Property	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 4 Tests

Supporting Standards 3.RA.E.11 - Identify arithmetic patterns and explain the patterns using properties of operations		● Write multiplication sentences for arrays and use arrays to find products ● Use the Commutative Property of Multiplication Activities: ● WS 4-3 Lesson 4 - Writing Multiplication Stories ● Write math stories for given multiplication facts Activities: ● WS 4-4 Lesson 5 - Writing to Explain ● Use objects, words, pictures, and numbers to provide a written explanation reflecting understanding Activities: ● WS 4-5	

Unit 5 - Multiplication Facts: Use Patterns

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments

Priority Standards
3.RA.A.4 - Use multiplication and division within 100 to solve problems
3.RA.E.11 - Identify arithmetic patterns and explain the patterns using properties of operations
3.RA.D.9 - Write and solve two-step problems involving variables using any of the four operations
3.RA.D.10 - Interpret reasonableness of answers using estimation
3.NBT.A.4 - Multiply whole numbers by multiples of 10 in the range 10-90
 	
Supporting Standards
3.RA.E.11 - Identify arithmetic patterns and explain the patterns using properties of operations
	- multiples
	- Identity (One) Property of
	   Multiplication
	-Zero Property of
	   Multiplication
		Lesson 1 - 2 an 5 as Factors
		  ● Use patterns to multiply with 2 and 5 as factors
		Activities:
		  ● Skip counting
		  ● Sing songs
		  ● WS 5-1
		
		Lesson 2 - 9 as a FactorActivities:
		  ● Use patterns to multiply 9 as a factor
		Activities:
		  ● Skip counting
		  ● Sing songs
		  ● Finger trick
		  ● WS 5-2
		
		Lesson 3 - Multiplying with 0 and 1
		  ● Use patterns and properties to multiply with 0 and 1 as factors
		Activities:
		  ● WS 5-3
		
		Lesson 4 - Patterns for facts
		  ● Use patterns to find products with
			● Three, two, one show me using dry erase marker boards
			● Quick Checks
			● Topic 5 Tests

		factors of 2,5, and 9 Activities: ● Skip counting ● Sing songs ● WS 5-4 Lesson 5 - 10 as a Factor ● Use patterns to multiply with 10 as a factor Activities: ● Skip counting ● WS 5-5 Lesson 6 - Multiplying by Multiples of 10 ● Use basic multiplication facts and number patterns to multiply by multiples of 10 Activities: ● Skip counting ● WS 5-6 Lesson 7 - Two Question Problems ● Solve for one problem and use the solution to complete a second problem Activites: ● WS 5-7	

Unit 6 - Multiplication Facts: Use Known Facts

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments

Priority Standards 3.RA.A.4 - Use multiplication and division within 100 to solve problems 3.RA.D.9 - Write and solve two-step problems involving variables using any of the four operations 3.RA.D.10 - Interpret reasonableness of answers using estimation **Supporting Standards** 3.RA.B.6 - Apply properties of operations as strategies to multiply and divide 3.GM.C.11 - Demonstrate that tilting a rectangle to find the area and multiplying the side lengths result in the same value	- factors - Distributive Property - Associative (Grouping) Property of Multiplication	Lesson 1 - The Distributive Property ● Use the Distributive Property to simplify multiplication problems by breaking apart large arrays into smaller arrays that represent other multiplication facts Activities: ● WS 6-1 Lesson 2 - 3 as a Factor ● Use known facts to find products with 3 as a factor Activities: ● Skip counting ● Sing songs ● Finger trick ● WS 6-2 Lesson 3 - 4 as a Factor ● Use known facts and doubles to find products with 4 as a factor Activities: ● Skip counting ● Sing songs ● WS 6-3 Lesson 4 - 6 and 7 as a Factor ● Use known facts to find products with 6 and 7 as factors Activities: ● Skip counting ● Sing songs ● WS 6-4 Lesson 5 - 8 as a Factor ● Use known facts and doubles to	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 6 Tests

		find products with factors of 8 Activities: ● Skip counting ● Sing songs ● WS 6-5 Lesson 6 - Multiplying with 3 Factors ● Multiply 3 numbers and use the Associative Property of multiplication Activities: ● WS 6-6 Lesson 7 - Multiplication Facts ● Use known facts and patterns to find products Activities: ● WS 6-7 Lesson 8 - Multiplying to Find Combinations ● Use objects, pictures, and multiplication to find the number of possible combinations of data or objects in a problem Activities: ● WS 6-8 Lesson 9 - Multiple Step Problems ● Solve multiple step problems Activities: ● WS 6-9	

Unit 7 - Meanings of Division

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.RA.A.5 - Determine the unknown number in a multiplication or division equation relating three whole numbers 3.RA.A.4 - Use multiplication and division within 100 to solve problems 3.RA.B.6 - Apply properties of operations as strategies to multiply and divide **Supporting Standards** 3.RA.A.2 - Interpret quotients of whole numbers 3.RA.A.3 - Describe in words or drawings a problem that illustrates a multiplication or division situation 3.RA.E.11 - Identify arithmetic patterns and explain the	- division - equal groups	Lesson 1 - Division as Sharing ● Use models to solve division problems involving sharing and record solutions using division number sentences Activities: ● WS 7-1 Lesson 2 - Division as Repeated Subtraction ● Use models to solve division problems involving repeated subtraction and record solutions using division number sentences Activities: ● WS 7-2 Lesson 3 - Finding Missing Numbers in a Multiplication Table ● Use multiplication tables to find answers to division problems Activities: ● Multiplication table ● WS 7-3	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 7 Tests

patterns using properties of operations		**Lesson 4 - Choose an Appropriate Equation** ● Solve word problems by writing equations that represent the problem situations Activities: ● WS 7-4 **Lesson 5 - Writing Division Stories** ● Write and solve number stories involving division Activities: ● WS 7-5 **Lesson 6 - Use Objects and Draw a Picture** ● Solve problems by using objects and drawing pictures Activities: ● WS 7-6	

Unit 8 - Division Facts

Standards	Vocabulary	IActivities/Resources	Formative/Summative Assessments
<u>Priority Standards</u> 3.RA.A.4 - Use multiplication and division within 100 to solve problems 3.RA.A.5 - Determine the unknown number in a	-dividend -divisor -quotient -fact families	Lesson 1 - Relating Multiplication and Division ● Give multiplication fact and state a related division fact and vice versa Activities: ● WS 8-1	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 8 Tests

| multiplication or division equation relating three whole numbers 3.RA.C.7 - Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of operations. Know all products of two one-digit numbers 3.RA.C.8 - Demonstrate fluency with products within 100 | | Lesson 2 - Fact Families with 2,3,4, and 5 | |

Supporting Standards
3.RA.D.9 - Write and solve two-step problems involving variables using any of the four operations
3.RA.D.10 - Interpret reasonableness of answers using estimation
3.RA.B.6 - Apply properties of operations as strategies to multiply and divide

Lesson 2 - Fact Families with 2,3,4, and 5
- Give quotients for division facts with divisors of 2,3,4,5

Activities:
- WS 8-2

Lesson 3 - Fact Families with 6 and 7
- Give quotients for division facts with divisors of 6 and 7

Activities:
- WS 8-3

Lesson 4 - Fact Families with 8 and 9
- Give quotients for division facts with divisors of 8 and 9

Activities:
- WS 8-4

Lesson 5 - Multiple- Step Problems
- Use previously learned skills to solve multiple-step problems

Activities:
- WS 8-5

Lesson 6 - Making Sense of Multiplication and Division Equations
- Learn how to use multiplication and division facts to decide whether both sides of the equation are equal
- Learn to determine the value of an unknown number in an equation

Activities:
- WS 8-6

Lesson 7 - Dividing with 0 an 1
- Use patterns and fact families to

		find answers to division facts with 0 and 1 Activities: ● WS 8-7 Lesson 8 - Multiplication and Division Facts ● Use multiplication and division facts to solve problems Activities: ● WS 8-8 Lesson 9 - Draw a Picture and Write a Number Sentence ● Solve division problems involving sharing and repeated subtraction by drawing a picture and writing a number sentence Activities: ● WS 8-9	

Unit 9 - Understanding Fractions

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.NF.A.1 - Understand a unit fraction as the quantity formed by one part when a whole is	-halves -thirds -fourths -fifths	Lesson 1 - Dividing Regions into Equal Parts ● Identify regions that have been divided into equal-sized parts	● Three, two, one show me using dry erase marker boards ● Quick Checks

partitioned into equal parts
3.NF.A.2 - Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole.
   a. Describe the numerator as representing the number of pieces being considered
   b. Describe the denominator as the number of pieces that make the whole
 	
Supporting Standards
 3.NF.A.3 - Represent fractions on a number line.
   a. Understand the whole is the interval from 0 to 1
   b. Understand the whole is partitioned into equal groups
   c. Understand a fraction represents the endpoint of the length of a given number of partitions from 0
	-sixths
	-eights
	-tenths
	-twelfths
	-fraction
	-unit fraction
	-numerator
	-denominator
	-mixed numbers
	-benchmark fractions
		● Divide regions into equal- sized parts
		Activities:
		  ● WS 9-1
		
		Lesson 2 - Fractions and Regions
		  ● Associate the model, symbol, and words to describe a fractional part of a whole region
		Activities:
		  ● WS 9-2
		
		Lesson 3 - Fractions and Sets
		  ● Associate the model, symbol, and words to describe a fractional part of a whole region
		Activities:
		  ● WS 9-3
		
		Lesson 4 - Fractional Parts of a Set
		  ● Find a fractional part of a set
		Activities:
		  ● WS 9-4
		
		Lesson 5 - Locating Fractions on the Number Line
		  ● Identify fractional parts and mixed numbers on a number line
		Activities:
		  ● Number line WS
		  ● WS 9-5
		
		Lesson 6 - Benchmark Fractions
		  ● Use benchmark fractions to estimate fractional parts
		Activities:
			● Topic 9 Tests

		● Benchmark fractions WS ● WS 9-6 Lesson 7 - Fractions and Length ● Associate the model, symbol, and words to describe a fractional part of the length of an object Activities: ● Benchmark fractions WS ● Fraction strips ● WS 9-7 Lesson 8 - Make a Table and Look for a Pattern ● Make a table and look for a pattern to solve a problem Activities: ● WS 9-8	

Unit 10 - Fraction Comparison and Equivalence

Standards	Vocabulary	Activities/Resources	Formative/Summative Assessments
Priority Standards 3.NF.A.4 - Demonstrate that two fractions are equivalent if they are the same size, or the same point on a number line 3.NF.A.5 - Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent	- equivalent fractions - simplest form	Lesson 1 - Using Models to Compare Fractions: Same Denominator ● Use models and quantitative reason to compare fractions with the same denominator Activities: ● Benchmark Fractions WS ● Fraction Strips ● WS 10-1	● Three, two, one show me using dry erase marker boards ● Quick Checks ● Topic 10 Tests

| 3.NF.A.6 - Compare two fractions with the same numerator or denominator using the symbols >, = or <, and justify the solution
3. NF.A.7 - Explain why fraction comparisons are only valid when the two fractions refer to the same whole

Supporting Standards
3.NF.A.2 - Understand that when a whole is partitioned equally, a fraction can be used to represent a portion of the whole.
  a. Describe the numerator as representing the number of pieces being considered
  b. Describe the denominator as the number of pieces that make the whole | | Lesson 2 - Using Models to Compare Fractions: Same Numerator
● Use models and reasoning to compare fractions with the same numerator
Activities:
● Benchmark Fractions WS
● Fraction Strips
● WS 10-2

Lesson 3 - Comparing Fractions Using Benchmarks
● Use benchmark numbers to compare fractions with the same numerator or the same denominator
Activities:
● Benchmark Fractions WS
● Fraction Strips
● WS 10-3

Lesson 4 - Comparing Fractions on a Number Line
● Use number lines to compare fractions with like denominators or like numerators
Activities:
● Number line WS
● WS 10-4

Lesson 5 - Finding Equivalent Fractions
● Use models to find equivalent fractions
Activities:
● Benchmark Fractions WS
● Fraction Strips | |

| | | ● WS 10-5 | |
| | | **Lesson 6 - Equivalent Fractions and the Number Line**
● Use number lines to find equivalent fractions
Activities:
● Number lines WS
● Benchmark Fractions WS
● Fraction Strips
● WS 10-6

Lesson 7 - Whole Numbers and Fractions
● Use fraction strips and number lines to find fraction names for whole numbers
Activities:
● WS 10-7

Lesson 8 - Using Fractions
● Compare and order fractions to solve problems
Activities:
● Benchmark fractions WS
● Fraction strips
● WS 10-8

Lesson 9 - Draw a Picture
● Draw a picture to solve problems
Activities:
● WS 10-9 | |