Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Count, Write, Represent (1-4)**

Time Allotment: 1-2 weeks **Unit Sequence: 1**

Major Concepts to be learned:

- Model and count 1 and 2 with objects.
- Represent 1 and 2 objects with number names and written numerals.
- Model and count 3 and 4 with ojects.
- Represent 3 and 4 objects with number names and written numerals.

Expected Skills to be demonstrated:

- Count out 1 and 2 objects.
- Write 1 and 2 to represent a group of objects.
- Count out 3 and 4 objects.
- Write3 or 4 to represent a group of objects.

PA Standards:

- CC.2.1.K.A.1- Know number names and write and recite the count sequence.
- CC.2.1.K.A.2- Apply one-to-one correspondence to count the number of objects

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Lesson Quick Check
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Count, Write, & Represent Numbers Through 5

Time Allotment: 2-3 weeks

Unit Sequence: 2

Major Concepts to be learned:

- Model and count up to 5 with objects.
- Represent up to 5 objects with a written numeral.
- Use objects or drawings to decompose 5 into pairs in more than one way.
- Tell the number of objects in a group without counting.
- Know that each successive number refers to a quantity that is one greater.
- Count forward and backward within 5.

Expected Skills to be demonstrated:

- Count out 5 objects.
- Write 5 to represent a group of objects.
- Represent 5 in different ways.
- Tell the number of objects in a group without counting.
- Represent numbers in counting order.
- Count forward and backward within 5.

PA Standards:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Lesson Quick Check
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Compare Numbers Through 5

Time Allotment: 1-2 weeks

Unit Sequence: 3

Major Concepts to be learned:

- Use matching and counting strategies to compare sets with a number of objects that is the same, greater, and less than.
- Make and model to solve problems using a counting strategy and matching strategy.
- Recognize the ordinal positions to 5^{th}.

Expected Skills to be demonstrated:

- Compare sets of of up to 5 objects using the words equal to, greather than, and less than.
- Compare sets of up to 5 objects by counting and matching.
- Identigy objects in a sequence from first to fifth.

PA Standards:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.1.K.A.3 - Apply the concept of magnitude to compare numbers and quantities.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Lesson Quick Check
- Quiz
- Chapter Tests

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Addition up to 5**

Time Allotment: 1-2 weeks **Unit Sequence: 4**

Major Concepts to be learned:

- The symbol used for addition.
- Addition is putting together two groups.
- Write and solve addition equations within 5.

Expected Skills to be demonstrated:

- Use symbols to write an addition equation.
- Use objects and drawings to show putting together two groups.
- Write and solve addition equations to 5.

PA Standards:

- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Subtraction Within 5**

Time Allotment: 1-2 weeks **Unit Sequence: 5**

Major Concepts to be learned:

- The symbol used for subtraction.
- Subtraction is taking apart two groups.
- Write and solve subtraction equations within 5.

Expected Skills to be demonstrated:

- Use symbols to write a subtraction equation.
- Use objects and drawings to show taking apart two groups.
- Write and solve subtraction equations within 5.

PA Standards/Anchors:

- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Count & Represent Numbers Through 8

Time Allotment: 1-2 weeks

Unit Sequence: 6

Major Concepts to be learned:

- Model and count objects up to 8.
- Represent numbers to 8.

Expected Skills to be demonstrated:

- Students will model, count, and write numbers to 8.

PA Standards/Anchors:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Count & Represent Numbers Through 10

Time Allotment: 1-2 weeks

Unit Sequence: 7

Major Concepts to be learned:

- Model, count, and represent numbers to 10.
- Solve problems about numbers to 10.
- Represent numbers to 10 in different ways.

Expected Skills to be demonstrated:

- Represent up to 10 with a written number.
- Use the strategy of drawing a picture to solve problems.
- Model, count, and represent numbers to 10.

PA Standards

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.1.K.A.3 - Apply the concept of magnitude to compare numbers and quantities.
- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Order & Compare Numbers Through 10

Time Allotment: 1-2 weeks

Unit Sequence: 8

Major Concepts to be learned:

- Count forward to 10 from a given number.
- Compare numbers and sets of objects to 10.
- Tell what number is one more and one less than a given number.

Expected Skills to be demonstrated:

- When given a number, students can count forward to 10.
- Using the strategies of matching and counting, students will compare numbers.
- Use a number line to tell what number is one more and one less.

PA Standards/Anchors:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.1.K.A.3 - Apply the concept of magnitude to compare numbers and quantities.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Put Together & Take Apart Numbers Through 10

Time Allotment: 1-2 weeks

Unit Sequence: 9

Major Concepts to be learned:

- Students will model putting together to make sums 6, 7, 8, 9, and 10.
- Students will model taking groups apart from 10, 9, 8, 7, and 6.

Expected Skills to be demonstrated:

- Students will write an addition sentence to match a picture when putting together groups to make 6, 7, 8, 9, and 10.
- Stduents will complete subtraction sentence by looking at pictures and taking away a group.

PA Standards/Anchors:

- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Count, Represent, & Compare Numbers Through 15

Time Allotment: 1-2 weeks

Unit Sequence: 10

Major Concepts to be learned:

- Students will count, write, and represent numbers 11, 12, 13, 14, and 15.
- Identify numbers that are one more and one less than a number to 15.

Expected Skills to be demonstrated:

- Students will count groups of objecs to 15 with one-to-one matching.
- Students will count a group of objects and write the number to show how many to 15.
- When given a number to 15, students can model the given number with objects.
- Students can find a number one more or one less by using the number line.

PA Standards/Anchors:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.1.K.B.1 - Use place value to compose and decompose numbers within 19.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Count, Represent, & Compare Numbers Through 20

Time Allotment: 2-3 weeks

Unit Sequence: 11

Major Concepts to be learned:

- Students will count, write, and represent numbers 16, 17, 18, 19, and 20.
- Students will put numbers in order to 20.

Expected Skills to be demonstrated:

- Students will count groups of objecs to 20 with one-to-one matching.
- Students will count a group of objects and write the number to show how many to 20.
- When given a number to 20, students can model the given number with objects.
- Students will put numbers in order to 20 using a number line.

PA Standards/Anchors:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.
- CC.2.1.K.A.2 - Apply one-to-one correspondence to count the number of objects.
- CC.2.1.K.B.1 - Use place value to compose and decompose numbers within 19.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten

Course Title: Math

Topic/Concept: Explore Addition & Subtraction to 20

Time Allotment: 1-2 weeks

Unit Sequence: 12

Major Concepts to be learned:

- Put together and take apart numbers to 20.
- Explain why addition and subtraction equations are true.

Expected Skills to be demonstrated:

- Students will understand numbers by decomposing numbers into 10 ones and some more ones using objects.
- Using objects and drawings students solve problems.

PA Standards/Anchors:

- CC.2.1.K.B.1 - Use place value to compose and decompose numbers within 19.
- CC.2.2.K.A.1 - Extend concepts of putting together and taking apart to add and subtract within 10.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Count to 100**

Time Allotment: 1-2 weeks **Unit Sequence: 13**

Major Concepts to be learned:

- Students will learn the count sequence when counting by ones to 50 and 100.
- Students will learn the count sequence when counting by tens.
- Students will recognize the number sequence to 20.

Expected Skills to be demonstrated:

- Students will count to 50 and 100 by ones.
- Students will count to 100 by tens.
- Students will count and order numbers forward and backward to 20.

PA Standards/Anchors:

- CC.2.1.K.A.1 - Know number names and write and recite the count sequence.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Tests

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: 2D Shapes**

Time Allotment: 1-2 weeks **Unit Sequence: 14**

Major Concepts to be learned:

- Students will learn 2D shapes; circle, squares, rectangles, triangles, and hexagons.
- Students will learn attibutes of 2D shapes.

Expected Skills to be demonstrated:

- Students will identify 2D shapes; circle, squares, rectangles, triangles, and hexagons.
- Students will describe 3D shapes.

PA Standards/Anchors:

- CC.2.3.K.A.1 - Identify and describe two- and three-dimensional shapes.
- CC.2.3.K.A.2 - Analyze, compare, create, and compose two- and three-dimensional shapes.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Test

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: 3D Solids**

Time Allotment: 1-2 weeks **Unit Sequence: 15**

Major Concepts to be learned:

- Students will learn 3D shapes; sphere, cube, cylinder, and cone.
- Students will learn attibutes of 3D shapes.
- Students will learn position words; above and below, beside and next to, and in front of and behind

Expected Skills to be demonstrated:

- Students will identify 3D shapes; sphere, cube, cylinder, and cone.
- Students will describe 3D shapes.
- Students will use the words and demonstrate position words.

PA Standards/Anchors:

- CC.2.3.K.A.1 - Identify and describe two- and three-dimensional shapes.
- CC.2.3.K.A.2 - Analyze, compare, create, and compose two- and three-dimensional shapes.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Test

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Measurement**

Time Allotment: 1-2 weeks **Unit Sequence: 16**

Major Concepts to be learned:

- Students will compare objects by length, height, weight, and volume.
- Students will describe ways to measure.

Expected Skills to be demonstrated:

- Students will directly compare the length, weight, height, and volume of two objects.
- Students will describe several ways to measure the same object.

PA Standards/Anchors:

- CC.2.4.K.A.1 - Describe and compare attributes of length, area, weight, and capacity of everyday objects.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Test

Grade Level: Kindergarten **Course Title: Math** **Topic/Concept: Data**

Time Allotment: 1-2 weeks **Unit Sequence: 17**

Major Concepts to be learned:

- Students will collect data and sort data.
- Students will solve problems.

Expected Skills to be demonstrated:

- Students will sort objects by shape, color, and size.
- Students will solve problems by analyzing graphs.

PA Standards/Anchors:

- CC.2.4.K.A.4 - Classify objects and count the number of objects in each category.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Test

Grade Level: Kindergarten | **Course Title: Math** | **Topic/Concept: Time**

Time Allotment: 1-2 weeks | **Unit Sequence: 18**

Major Concepts to be learned:

- Introduce students to telling time to the hour.
- Read and represent time to the hour using a digital and analog clock.

Expected Skills to be demonstrated:

- Students will read the given time to the hour by reading an analog or digital clock.
- Student will show time to the hour on a digital or analog clock.

PA Standards/Anchors:

- (First Grade) CC.2.4.1.A.2 - Tell and write time to the nearest half hour using both analog and digital clocks.

Instructional Strategies:

- Cooperative learning
- Manipulatives
- Literature connections
- Workbook pages
- Kinesthetic activities
- Modeling of appropriate language/vocabulary

Assessments:

- Informal (observational) Assessment
- Quiz
- Chapter Test