Southern York County School District Instructional Plan

Name: Kindergarten	Dates: August/September
Course/Subject: Math	Section 1

<table>
<tr><td colspan="2" align="center">Stage 1 – Desired Results</td></tr>
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PA Core Content & Practice Standards:

- **Describe and compare attributes of length, area, weight, and capacity of everyday objects CC.2.4.K.A.1.**
- **Classify objects and count the number of objects in each category CC.2.4.K.A.4**
- **Identify and describe two and three dimensional shapes CC.2.3.K.A.1**
- **Analyze, compare, & create two and compose two and three dimensional shapes CC.2.3.K.A.2:**
- **Apply one to one correspondence to count the numbers of objects CC.2.1.K.A.2.**
- **Know number names and write and recite the count sequence CC.2.1.K.A.1.**
- **Apply the concept of magnitude to compare numbers and quantities CC.2.1.K.A.3**
- **Use appropriate tools strategically.**

Understanding(s):	Essential Question(s):
Students will understand . . . 1. How to identify and describe shapes. 2. When counting objects each one corresponds to a numeral. 3. Recognize and understand zero as a number for "none". 4. That numbers can be represented with groups of objects. 5. Ways of sorting objects using a variety of attributes. 6. That length is one measurement tool used to describe objects.	- How do we accurately measure length? - How can we identify and describe shapes? - How can we count objects? - What does zero mean? - How can numbers help us make sense of our world? - How can objects be sorted or classified?

Learning Objectives:
Students will know and be able to. . .

- Use paper strips to measure and compare lengths.
- Use pattern blocks to explore and identify shape attributes.
- Count objects using one to one correspondence.
- Count down to zero.
- Represent numbers with concrete objects.
- Sort objects based on their attributes.

Name: Kindergarten	Dates: October
Course/Subject: Math	Section 2

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PA Core Content & Practice Standards:

- **Identify and describe two and three dimensional shapes CC.2.3.K.A.1**
- **Analyze, compare, & create two and compose two and three dimensional shapes CC.2.3.K.A.2**
- **Apply the concept of magnitude to compare numbers and quantities CC.2.1.K.A.3**
- **Apply one to one correspondence to count the number of objects CC.2.1.K.A.2**
- **Extend the concepts of putting together and taking apart to add and subtract within 10 CC.2.2.K.A.1**
- **Construct viable arguments and critique reasoning of others**
- **Model with mathematics.**

Understanding(s):	Essential Question(s):

Students will understand . . .

1. The attributes of circles, squares, rectangles, and triangles.
2. How to count and read numbers 0-19.
3. How to reason abstractly and quantitatively through estimation
4. How to use manipulatives to solve addition and subtraction stories.

- How can shapes be sorted or classified?
- How can numbers help us make sense of our world?
- How can we make reasonable estimates?

Learning Objectives:
Students will know and be able to . . .

- Recognize shapes in their surroundings.
- Reinforce spatial relations vocabulary & concepts.
- Describe shapes through their sense of touch.
- Count and read numbers 0-19.
- Make reasonable estimates using good number sense.
- Represent addition and subtraction using concrete materials.

Name: Kindergarten	Dates: November
Course/Subject: Math	Section 3

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Stage 1 – Desired Results

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PA Core Content & Practice Standards:

- **Describe and compare attributes of length, area, weight and capacity of everyday objects CC.2.4.K.A.1.**
- **Know number names and write and recite the count sequence CC.2.1.K.A.1.**
- **Apply the concept of magnitude to compare numbers and quantities CC.2.1.K.A.3.**
- **Extend the concepts of putting together and taking apart to add and subtract within 10 CC.2.2.K.A.1.**
- **Use appropriate tools strategically.**
- **Look for & make sense of structure**.

Understanding(s):
Students will understand . . .

1. How to write numbers 0-10 using correct form.
2. Standard and nonstandard tools are useful for measuring objects.
3. How to match numbers to sets.
4. Number relationships and number recognition.
5. Use manipulatives to solve addition and subtraction stories.
6. Numerals and the objects they represent and how to compare and order numbers.

Essential Question(s):

- How can numbers help us make sense of our world?
- What tools or techniques are useful for measuring objects?

Learning Objectives:
Students will know and be able to. . .

- Identify and write numbers 0-10.
- Investigate measuring and weighing techniques with standard and nonstandard tools.
- Use concrete materials to represent sets and their corresponding number.
- Compare and order numbers.
- Represent addition and subtraction using concrete materials.
- Count, identify and sequence numbers 0-20.
- Use a pan balance to experiment with balancing objects.
- Skip count by 10s orally
- Compare numbers 11-20

Name: Kindergarten	**Dates: December**
Course/Subject: Math	**Section 4**

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PA Core Content & Practice Standards:

- **Extend the concepts of putting together and taking apart to add and subtract within 10 CC.2.2.K.A.1.**
- **Apply the concept of magnitude to compare numbers and quantities CC.2.1.K.A.3.**
- **Know number names and write and recite the count sequence CC.2.1.K.A.1**
- **Analyze, compare, create, and compose two and three dimensional shapes CC.2.3.K.A.2.**
- **Look for and make use of structure.**
- **Attend to precision.**
- **Use appropriate tools strategically.**

Understanding(s): *Students will understand . . .*	**Essential Question(s):**
1. Tools and objects are useful for problem solving 2. Use manipulatives to solve addition and subtraction stories. 3. Number relationships and number recognition. 4. Characteristics and identify relationships among shapes. 5. How to write numbers 0-10 using correct form. 6. Represent two-digit numbers as groups of tens and ones.	▪ What tools or objects can be used to solve addition or subtraction problems? ▪ How do numbers help us make sense of our world? ▪ How do we use a calculator? ▪ How can shapes be sorted or classified? ▪ How do we represent two digit numbers?

Learning Objectives:
Students will know and be able to:

- Use a number line to solve addition and subtraction problems
- Use the attributes of more/less, higher/lower to compare numbers
- Use manipulatives to solve addition and subtraction number stories.
- Explore counting on from different numbers.
- Read and enter numbers on a calculator.
- Describe and sort shapes according to their attributes.
- Recognize and write numbers using correct form.
- Represent two digit numbers as groups of tens and ones.

Name: Kindergarten	**Dates: January**
Course/Subject: Math	**Section 5**

Stage 1 – Desired Results

PA Core Content & Practice Standards:
- **Analyze, compare, create, and compose two and three dimensional shapes (CC.2.3.K.A.2).**
- **Apply the concept of magnitude to compare numbers and quantities (CC.2.1.K.A.3)**
- **Describe and compare attributes of length, area, weight and capacity of everyday objects (CC.2.4.K.A.1).**
- **Know number names and write and recite the count sequence (CC.2.1.K.A.1).**
- **Apply one-to-one correspondence to count the number of objects (CC.2.1.K.A.2)**
- **Use appropriate tools strategically.**
- **Look for and make sense of structure.**
- **Make sense of problems & persevere in solving them.**

Understanding(s): *Students will understand . . .*	**Essential Question(s):**
1. Characteristics and identify relationships among shapes.	- How can shapes be sorted or classified?
2. Tools and objects are useful for problem solving	- How do numbers help us make sense of our world?
3. Standard and nonstandard tools are useful for measuring objects.	- How do we use a calculator?
4. Number relationships and number recognition.	- What tools or techniques are useful for measuring objects?
5. Data can be displayed in meaningful ways.	- How can data be displayed in a meaningful way?

Learning Objectives:
Students will know and be able to. . .
- Describe and sort shapes according to their attributes.
- Recognize and find equivalent names for numbers.
- Count forward and backward on the calculator.
- Practice measuring techniques using standard and nonstandard tools.
- Skip count by 5s orally
- Apply one-to-one correspondence to count the number of objects.
- Identify and locate numbers on a number grid.

Name: Kindergarten	**Dates: February**
Course/Subject: Math	**Section 6**

Stage 1 – Desired Results

PA Core Content & Practice Standards:
- **Analyze, compare, create, and compose two and three dimensional shapes (CC.2.3.K.A.2).**
- **Classify objects and count the number of objects in each category (CC.2.4.K.A.4)**
- **Apply the concept of magnitude to compare numbers and quantities (CC.2.1.K.A.3)**
- **Use appropriate tools strategically.**

Understanding(s):	**Essential Question(s):**

Students will understand . . .

1. Characteristics and identify relationships among shapes.
2. Data can be displayed in meaningful ways.
3. Number comparisons.
4. Number relationships and number recognition.
5. Tools and objects are useful for problem solving.

- How can shapes be sorted or classified?
- How can data be displayed in a meaningful way?
- How do numbers help us make sense of our world?
- How do we use a calculator?

Learning Objectives:
Students will know and be able to:

- Describe and sort shapes according to their attributes.
- Conduct survey and graph their results.
- Use the attributes of more/less, higher/lower to compare numbers
- Skip count by 2s orally
- Skip count by 2s, 5s, 10s using a calculator

Name: Kindergarten	**Dates: March**
Course/Subject: Math	**Section 7**

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Stage 1 – Desired Results

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PA Core Content & Practice Standards:

- **Classify and count the number of objects in each category (CC.2.4.K.A.4)**
- **Extend the concept of putting together and taking apart to add and subtract within 10 (CC.2.2.K.A.1)**
- **Analyze, compare, create and compose two and three dimensional shapes (CC.2.3.K.A.2)**
- **Know number names and write and recite the count sequence (CC.2.1.K.A.1)**
- **Use place value to compose and decompose numbers within 19 (CC.2.1.K.B.1)**
- **Look for and express regularity in repeated reasoning**
- **Reason abstractly and quantitatively**

Understanding(s):
Students will understand . . .

1. Data can be displayed in meaningful ways
2. Mathematical symbols and language can be expressed through number stories.
3. Characteristics that identify relationships among shapes
4. How to count in a variety of ways.
5. Place value
6. Number relationships and number recognition

Essential Question(s):

- How can data be displayed in a meaningful way?
- How do numbers help us make sense of our world?
- How can we construct two and three dimensional shapes and explore their properties?
- How can we represent two digit numbers?

Learning Objectives:
Students will know and be able to:

- Compare and sort items to create a classroom collection.
- Use pictures to represent and solve addition and subtraction stories.
- Apply problem solving skills to construct two and three dimensional shapes
- Use manipulatives and games to solve addition and subtraction number stories.
- Count forward, backwards and beyond 100
- Represent numbers using manipulatives as 10s and 1s
- Use manipulatives to represent names for equivalent numbers.
- Write one, two, and three digit numbers.

Name: Kindergarten	Dates: April/May
Course/Subject: Math	Section 8

Stage 1 – Desired Results

PA Core Content & Practice Standards:

- **Use place value to compose and decompose numbers within 19 CC.2.1.K.B.1**
- **Apply the concept of magnitude to compare numbers and quantities CC.2.1.K.A.3**
- **Extend the concepts of putting together and taking apart to add and subtract within 10 CC.2.2.K.A.1.**
- **Describe and compare attributes of length, area, weight, and capacity of everyday objects CC.2.4.K.A.1.**
- **Make sense of problems and persevere in solving them**
- **Reason abstractly and quantitatively**
- **Use appropriate tools strategically.**
- **Construct viable arguments and critique reasoning of others.**

Understanding(s): *Students will understand . . .*	Essential Question(s):
1. Place value 2. Number comparisons 3. Number sense and the ability to manipulate numbers 4. Tools and objects are useful for problem solving	- How can we represent place value? - How can numbers help us make sense of our world? - What tools or objects can be used to solve addition or subtraction problems? - How can we use appropriate tools strategically?

Learning Objectives:
Students will know and be able to:

- Understand place value through an exchange game
- "Count on" as an addition strategy
- Apply addition and subtraction based function rules.
- Use mental math strategies to manipulate numbers
- Use manipulatives to represent names for equivalent numbers.
- Solve missing number problems with concrete objects
- Read and enter numbers on a calculator to solve number stories
- Use non-standard units to weigh objects on a pan balance