

# Kindergarten Math Scope and Sequence

The following is a recommended sequence in which to teach the standards within the clusters.

## Grade K District Snapshot #1 [SPAN] Grade K District Snapshot #1 Blueprint

### Cluster 1: Developing Number Concepts (0 - 5) Sample/Suggested Pacing Document

In this cluster, the student applies mathematical process standards to understand how to represent and compare whole numbers up to 5, how to compose and decompose numbers up to 5 with objects and pictures, and how to solve word problems using objects and drawings. The foundational skill within this cluster is reading, writing, and representing whole numbers as well as one-to-one correspondence when counting.

(There is no pre assessment in this cluster because you will be administering the benchmark and setting up routines and procedures.)

#### Process Standards should be taught throughout all components of the workshop.

K.1 The student uses mathematical processes to acquire and demonstrate mathematical understanding.

K.1(A) Apply mathematics to problems arising in everyday life, society, and the workplace

K.1(B) Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution

K.1(C) Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems

K.1(D) Communicate mathematical ideas, reasoning, and their implications using multiple representations

K.1(E) Create and use representations to organize, record, and communicate ideas

K.1(F) Analyze mathematical relationships to connect and communicate math ideas

K.1(G) Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

### Daily Numeracy

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines**. The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons.

Some number sense activities include, but not limited to, are noted here.

**The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.**

K.2(D) recognize instantly the quantity of a small group of objects in organized and random arrangements

K.2(F) generate a number that is one more than or one less than another number up to 20





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K.5(A) recite numbers up to at least 100 by ones and tens beginning with any given number.

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| <p><b>Cluster 1:</b><br/>Developing<br/>Number<br/>Concepts<br/>(0-5)</p> <p><b>Suggested<br/>Pacing:</b><br/>August 12 -<br/>September 2<br/><b>Sample Pacing<br/>Guide</b></p> | Knowledge<br>and Skills  | <b>K.2 Number and Operations.</b> Students will apply the process standards to understand how to represent and compare whole numbers, the relative position, and magnitude of whole numbers, and relationships within the numeration system. The student is expected to: |
|  | Readiness<br><br><b>Essential</b>                                     | <b>K.2(B)</b> read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures<br><b>Focus of this cluster is on 0-5</b>  |
|  | Supporting   | K.2(A) count forward and backward to at least 20 with and without objects  |
|  | Supporting<br>  | K.2(C) count a set of objects to at least 20 and demonstrate that the last number tells the count  |
|  | Supporting   | K.2(E) generate a set using concrete and pictorial models that represents more than, less than, and equal to a given number up to 20   |
|  | Readiness<br><b>Essential</b>  | <b>K.2(H)</b> use comparative language to describe two numbers up to 20 presented as written numerals.<br><b>Focus of this cluster is on 0-5</b>   |
|  | Supporting   | K.2(G) compare sets of objects up to at least 20 in each set using comparative language<br><b>Focus of this cluster is on 0-5</b>  |
|  | Readiness<br><b>Essential</b>  | <b>K.2(I)</b> compose and decompose numbers up to 10 with objects and pictures<br><b>Focus of this cluster is on 0-5</b>   |
|  | Knowledge<br>and Skills  | <b>K.3 Number and Operations.</b> The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems.  |
|  | Supporting   | K.3(A) model the action of joining to represent addition and the action of separating to represent subtraction   |
| Readiness<br><b>Essential</b>  | <b>K.3(B)</b> solve word problems using objects and drawings to find sums up to 10 and differences within 10<br><b>Focus of this cluster is on 0-5</b> |  |



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|  | Supporting | K.3(C) explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences<br><b>Focus of this cluster is on 0-5</b> |
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**Grade K District Snapshot #1 [SPAN]  
Grade K District Snapshot #1 Blueprint**

**Cluster 2: Developing Number Concepts (0 - 10)  
Sample/Suggested Pacing Document**

In this cluster, the student applies mathematical process standards to understand how to represent and compare whole numbers up to 10, how to compose and decompose numbers up to 10 with objects and pictures, and how to solve word problems using objects and drawings. The foundational skill within this cluster is reading, writing, and representing whole numbers as well as one-to-one correspondence when counting.

(There is no pre-assessment in this cluster because you will be administering the benchmark and setting up routines and procedures.)

**Daily Numeracy**

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines**. The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons. Some number sense activities include, but not limited to, are noted [here](#).

**The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.**

- K.2(D) recognize instantly the quantity of a small group of objects in organized and random arrangements
- K.2(F) generate a number that is one more than or one less than another number up to 20
- K.5(A) recite numbers up to at least 100 by ones and tens beginning with any given number.

**Spiral Essentials**

The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*


- K.2(B)** read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures
- K.2(H)** use comparative language to describe two numbers up to 20 presented as written numerals.
- K.2(I)** compose and decompose numbers up to 10 with objects and pictures
- K.3(B)** solve word problems using objects and drawings to find sums up to 10 and differences within 10



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| <b>Cluster 2:</b><br>Developing<br>Number<br>Concepts<br>(0-10)                       | Knowledge<br>and<br>Skills   | <b>K.2 Number and Operations.</b> Students will apply the process standards to understand how to represent and compare whole numbers, the relative position, and magnitude of whole numbers, and relationships within the numeration system. The student is expected to: |
|   | Readiness<br><br><b>Essential</b> | <b>K.2(B)</b> read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures<br><b>Focus of this cluster is on 0-10</b>   |
| <b>Suggested Pacing:</b><br>September 7 -<br>October 29<br><b>Sample Pacing Guide</b> | Supporting   | K.2(A) count forward and backward to at least 20 with and without objects<br><b>Focus of this cluster is on 0-10</b>   |
|   | Supporting   | K.2(C) count a set of objects to at least 20 and demonstrate that the last number tells the count<br><b>Focus of this cluster is on 0-10</b>   |
|   | Supporting   | K.2(E) generate a set using concrete and pictorial models that represents one more than, less than, and equal to a given number up to 20<br><b>Focus of this cluster is on 0-10</b>  |
|   | Readiness<br><b>Essential</b>  | <b>K.2(H)</b> use comparative language to describe numbers<br><b>Focus of this cluster is on 0-10</b>  |
|   | Supporting   | K.2(G) compare sets of objects up to at least 20 in each set using comparative language<br><b>Focus of this cluster is on 0-10</b>   |
|   | Readiness<br><b>Essential</b>  | <b>K.2(I)</b> compose and decompose numbers up to 10 with objects and pictures   |
|   | Knowledge and Skills   | <b>K.3 Number and Operations.</b> The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems.  |
|   | Supporting   | K.3(A) model the action of joining to represent addition and the action of separating to represent subtraction   |
|   | Readiness<br><b>Essential</b>  | <b>K.3(B)</b> solve word problems using objects and drawings to find sums up to 10 and differences within 10   |
|   | Supporting   | K.3(C) explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences  |



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**Grade K District Snapshot #1 [\[SPAN\]](#)  
Grade K District Snapshot #1 Blueprint**

**Cluster 3: Developing Number Concepts (0 - 20)  
Cluster 3 Preassessment [\[SPAN\]](#)  
[Preassessment on Seesaw](#)  
[Sample/Suggested Pacing Document](#)**

This cluster will build upon standards taught in previous clusters as the student continues to understand how to represent and compare whole numbers up to 20, how to compose and decompose numbers up to 10 with objects and pictures, and how to solve word problems using objects and drawings.

**Daily Numeracy**

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines**. The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons. Some number sense activities include, but not limited to, are noted here.

**The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning**



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**stations throughout the school year.**

- K.2(D) recognize instantly the quantity of a small group of objects in organized and random arrangements
- K.2(F) generate a number that is one more than or one less than another number up to 20
- K.5(A) recite numbers up to at least 100 by ones and tens beginning with any given number.

**Spiral Essentials**


The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

**K.2(B)** read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures

**K.2(H)** use comparative language to describe two numbers up to 20 presented as written numerals.

**K.2(I)** compose and decompose numbers up to 10 with objects and pictures

**K.3(B)** solve word problems using objects and drawings to find sums up to 10 and differences within 10

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| <p><b>Cluster 3:</b><br/>Developing<br/>Number<br/>Concepts<br/>(0-20)</p> <p><b>Suggested<br/>Pacing:</b><br/>November 1 -<br/>January 28</p> <p><b>Sample Pacing<br/>Guide</b></p> | Knowledge and Skills   | <b>K.2 Number and Operations.</b> Students will apply the process standards to understand how to represent and compare whole numbers, the relative position, and magnitude of whole numbers, and relationships within the numeration system. The student is expected to: |
|  | Readiness<br><br><b>Essential</b> | <b>K.2(B)</b> read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures<br><b>Focus of this cluster is on 0-20</b>   |
|  | Supporting   | K.2(A) count forward and backward to at least 20 with and without objects<br><b>Focus of this cluster is on 0-20</b>   |
|  | Supporting   | K.2(C) count a set of objects to at least 20 and demonstrate that the last number tells the count<br><b>Focus of this cluster is on 0-20</b>   |
|  | Supporting   | K.2(E) generate a set using concrete and pictorial models that represents one more than, less than, and equal to a given number up to 20<br><b>Focus of this cluster is on 0-20</b>  |



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| <b>Snapshot Window:</b><br>November 29 -<br>December 10 | Readiness<br><b>Essential</b> | <b>K.2(H)</b> use comparative language to describe numbers<br><b>Focus of this cluster is on 0-20</b>   |
|   | Supporting                    | K.2(G) compare sets of objects up to at least 20 in each set using comparative language<br><b>Focus of this cluster is on 0-20</b>  |
|   | Readiness<br><b>Essential</b> | <b>K.2(I)</b> compose and decompose numbers up to 10 with objects and pictures  |
|   | Knowledge and Skills          | <b>K.3 Number and Operations.</b> The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. |
|   | Supporting                    | K.3(A) model the action of joining to represent addition and the action of separating to represent subtraction  |
|   | Readiness<br><b>Essential</b> | <b>K.3(B)</b> solve word problems using objects and drawings to find sums up to 10 and differences within 10  |
|   | Supporting                    | K.3(C) explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences             |

**Grade K District Snapshot #2 [SPAN]**  
**Grade K District Snapshot #2 Blueprint**

**Cluster 4: Geometry and Measurement**  
**Sample/Suggested Pacing Document**

In this cluster, students will apply mathematical process standards to analyze attributes of two-dimensional shapes (triangle, rectangle, square, circle) and three-dimensional solids (sphere, cone, cylinder, cube) to develop generalizations about their properties. Students also will apply mathematical process standards to directly compare measurable attributes including length, weight, and capacity.

**Daily Numeracy**

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines**. The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons. Some number sense activities include, but not limited to, are noted here.

**The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.**



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K.2(D) recognize instantly the quantity of a small group of objects in organized and random arrangements  
 K.2(F) generate a number that is one more than or one less than another number up to 20  
 K.5(A) recite numbers up to at least 100 by ones and tens beginning with any given number.

### Spiral Essentials



The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

**K.2(B)** read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures

**K.2(H)** use comparative language to describe two numbers up to 20 presented as written numerals.

**K.2(I)** compose and decompose numbers up to 10 with objects and pictures

**K.3(B)** solve word problems using objects and drawings to find sums up to 10 and differences within 10

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| <b>Cluster 4:</b><br>Geometry and Measurement<br><br><b>Suggested Pacing:</b><br>January 31 - April 8<br><b>Sample Pacing Guide</b> | Knowledge and Skills   | <b>K.6 Geometry and measurement.</b> The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. |
|   | Supporting   | K.6(A) identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles   |
|   | Supporting<br> | K.6(B) identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world   |
|   | <br>Readiness | <b>K.6(E)</b> classify and sort a variety of regular and irregular two- and three dimensional figures regardless of orientation or size   |
|   | Supporting   | K.6(C) identify two-dimensional components of three-dimensional objects   |
|   | Supporting   | K.6(D) identify attributes of two-dimensional shapes using informal and formal geometric language interchangeable   |



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| <b>Snapshot Window:</b><br>March 28 - April 8 | Supporting           | K.6(F) create two-dimensional shapes using a variety of materials and drawings   |
|   | Knowledge and Skills | <b>K.7 Geometry and measurement.</b> The student applies mathematical process standards to directly compare measurable attributes.                     |
|   | Readiness            | <b>K.7(B)</b> compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference |
|   | Supporting           | K.7(A) give an example of a measurable attribute of a given object, including length, capacity, and weight   |

### Cluster 5: Data Analysis, Money, and Personal Financial Literacy Sample/Suggested Pacing Document

In this cluster, students will become familiar with collecting, sorting, and organizing their own data into two or three categories in response to a question. Using real-object and picture graphs, they will represent data in vertical or horizontal models and interpret the data with the help of graph and category titles. Students will draw their own conclusions and make predictions about the data. Students will also learn to identify each U.S. coin by name, including pennies, nickels, dimes, and quarters, and including both the head and tail sides of the coins. They will also understand that coins are money and possess the power to purchase things. Students will not be counting the value of a collection of coins. During the Personal Financial Literacy portion of the cluster, students will be able to identify ways their parents earn income or how students can earn income. They will understand the difference between working for money as income and receiving money as a gift. Students will identify the educational and physical skills needed for certain jobs. They will distinguish between wants and needs, as well as identify income as a source to meet those wants and needs. There is no pre-assessment for this cluster.

#### Daily Numeracy

A number sense routine is an engaging, accessible, purposeful routine to begin your math class that promotes a community of positive mathematics discussion and thinking. Number Sense standards are **addressed and spiraled throughout the year during daily number sense routines**. The numeracy activities should be rotated and varied in the mode delivered. Number sense routines do not necessarily have to align to the content that is currently being taught during mini lessons. Some number sense activities include, but not limited to, are noted here.



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**The following supporting standards are not included directly in the scope and sequence. They should be spiraled through daily number sense routines and learning stations throughout the school year.**

- K.2(D) recognize instantly the quantity of a small group of objects in organized and random arrangements
- K.2(F) generate a number that is one more than or one less than another number up to 20
- K.5(A) recite numbers up to at least 100 by ones and tens beginning with any given number.

### Spiral Essentials

The following essential standard from the previous cluster should be spiraled throughout this cluster during **number sense routines, learning stations, and small group instruction** based on formative assessments. *Process Standards should be taught throughout all components of the workshop (see page 1).*

**K.2(B)** read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures

**K.2(H)** use comparative language to describe two numbers up to 20 presented as written numerals.

**K.2(I)** compose and decompose numbers up to 10 with objects and pictures

**K.3(B)** solve word problems using objects and drawings to find sums up to 10 and differences within 10

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| <b>Cluster 4:</b> Data Analysis, Money, and Personal Financial Literacy     | Knowledge and Skills | <b>K.8 Data analysis.</b> The student applies mathematical process standards to collect and organize data to make it useful for interpreting information.   |
|   | Supporting           | K.8(A) collect, sort, and organize data into two or three categories  |
|   | Readiness            | <b>K.8(B)</b> use data to create real-object and picture graphs   |
|   | Readiness            | <b>K.8(C)</b> draw conclusions from real-object and picture graphs  |
| <b>Suggested Pacing:</b><br>April 11 - May 20<br><b>Sample Pacing Guide</b> | Knowledge and Skills | <b>K.4 Number and operations.</b> The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions. The student is expected to identify U.S. coins by name, including pennies, nickels, dimes and quarters |
|   | Supporting           | K.4(A) identify U.S. coins by name, including pennies, nickels, dimes and quarters  |



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|  | Knowledge and Skills | <b>K.9 Personal financial literacy.</b> The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. |
|  | Supporting           | K.9(A) identify ways to earn income   |
|  | Supporting           | K.9(B) differentiate between money received as income and money received as gifts   |
|  | Supporting           | K.9(C) list simple skills required for jobs   |
|  | Supporting           | K.9(D) distinguish between wants and needs and identify income as a source to meet one's wants and needs  |



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