

# Curriculum Alignment

Common Core State Standards

Aligned with

MSC Montessori Kindergarten Curriculum

## **MATHEMATICS**

Common Core State Standards	Montessori Materials and Lessons
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### **K.NCC Number and Counting**

1. Say the number name sequence to 100.
2. Know the decade words to ninety and recite them in order.
3. Say the number names sequence forward and backward beginning from a given number within the known sequence.
4. Write numbers from 1 to 20 in base-ten notation.
5. Count to answer how many? questions about as many as 20 things.
6. Understand when counting objects,
  - a. The number names are said in standard order.
  - b. Each object is paired with one and only one number name.
  - c. The last number name said tells the number of objects counted.
7. Understand when counting forward, each successive number name refers to a quantity that is one larger.
8. Identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group.
9. Compare and put in order numbers between 1 and 10 presented in written symbols.

### **Linear Counting**

1. *Hundred Board*
    - Reinforcement of counting 1 to 100.
    - Sorting numerals by tens.
  - 1, 2, 3, 4. *Short Chains*
    - Practice skip counting.
    - Prepare for memorization of multiplication facts.
    - Discover the squares of numbers.
  2. *Tens Boards*
    - To practice the exchange of ten units for a ten bar.
    - To learn to count from 1-99.
    - To develop an understanding to add one more.
  4. *Teens Boards*
    - Recognize and associate quantities and numerals 1-20.
    - To teach the sequence of teens.
- Introduction to Numerals 1-10**
- 5, 7, 9. *Numerals and Counters*
    - To reinforce the ability to order numbers.
    - To develop idea of number quantity.
  - 6, 7. *Number Rods*
    - To develop verbal number names with the appropriate quantities.
    - To develop concepts of number quantities (cardinal numbers) and number sequence (ordinal numbers).
  - 6, 9. *Rods and Numerals*
    - Associate written numerals with their corresponding quantity.
  - 7, 8. *Spindle Boxes*
    - Introduce the concept of a set.
    - Introduce concept of zero.
    - Introduce successive numbers.

**K.NOP Number – Operations and the Problems They Solve**

1. Understand addition as putting together. Understand subtraction as taking apart.

2. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out, verbal explanations, or equations.

3. Decompose numbers less than or equal to 10 into pairs in various ways. Compose numbers whose sum is less than or equal to 10.

4. Compose and decompose numbers less than or equal to ten in two different ways and record by drawings or equations.

5. Understand that addition and subtraction are related.

6. Solve addition and subtraction word problems and calculate additions and subtractions within 10.

7. Fluently add and subtract, for sums and minuends of 5 or less.

**Decimal System / Place Value**

1, 2. *Bank Game: Addition with the Golden Beads*

-Develop the concept of addition.

-Visual representation of the meaning of addition in the decimal system.

-Understanding numbers and their place values.

-Learning the meaning of mathematical terms such as plus, equal, addends, and sum.

1, 2. *Bank Game: Subtraction with the Golden Beads*

-To develop the concept of subtraction.

- To provide a visual picture of how subtraction works in the decimal system.

**Memorization**

3, 4, 5. *Snake Game (Positive Snake)*

-To practice combinations that make tens.

-To begin to memorize addition facts.

1, 2, 3, 4, 6, 7. *Addition Strip Board*

-To memorize addition facts.

-Practice how many ways to make a number.

1, 2, 3, 4, 6, 7. *Subtraction Strip Board*

-To develop an understanding of the logical and orderly progression of the subtraction tables.

-Memorization of the subtraction facts.

**K.NBT Number – Base Ten**

- 1. Understand that 10 can be thought of as a bundle of ones, a unit called a “ten.”
- 2. Understand that a teen number is composed of a ten and ones.
- 3. Compose and decompose teen numbers into ten and some ones by using objects or drawings and record in base-ten notation.
- 4. Put in order numbers presented in base-ten notation from 1 to 20 and be able to explain the reasoning.
- 5. Understand that a decade word refers to 1-9 tens.
- 6. Understand that the two digits of a two-digit number represent amounts of tens and ones.
- 7. Decompose 10 into pairs of numbers and record with a drawing or equation.
- 9. For any number from 1 to 9, find the number that makes ten when added to the given number.

**K.MD Measurement and Data**

- 1. Understand that objects have measureable attributes, such as length and weight. A single object might have several measureable attributes of interest.
- 2. Directly compare two objects with a measureable attribute in common, to see which object has “more” of the attribute.
- 3. Classify objects or people into given categories; count the numbers in each category and sort the categories by count.

**Linear Counting**

- 1, 4, 5, 6. *Tens Boards*
  - To practice the exchange of ten units for a ten bar.
  - To learn to count from 1-99.
  - To develop an understanding to add one more.

- 2, 3. *Teens Boards*
  - Recognize and associate quantities and numerals 1-20.
  - To teach the sequence of teens.

**Decimal System / Place Value**

- 7, 9. *Snake Game (Positive Snake)*
  - To practice combinations that make tens.
  - To begin to memorize addition facts.

**Measurement**

- 1, 2. All Sensorial activities leading up to this have invited students to compare items by length, width and height.
- 1, 2, 3. Measurement activities based on:
  - Length
  - Area
  - Volume
  - Weight
  - Time
  - Value/Money
  - Estimation

<p><b>K.G Geometry</b></p> <p>1. Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.</p> <p>2. Understand the names of shapes apply regardless of the orientation or overall size of the shape.</p> <p>3. Understand that shapes can be two-dimensional or three-dimensional.</p> <p>5. Analyze and compare a variety of two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe the similarities and differences.</p>	<p><b>Sensorial: Visual Discrimination</b></p> <p>1. <i>Early Learning Materials : Prepositions</i>          -Develop an understanding of positional words.          -Use positional words to describe objects.</p> <p>2. <i>Geometric Cabinet</i>          -To develop ability to make judgments and comparisons to two-dimensional shapes.</p> <p>3, 5. <i>Geometric Solids</i>          -Develop understanding and vocabulary of three dimensional shapes including cube, sphere, cone, cylinder, ellipsoid, ovoid, rectangular prism, triangular prism, square-based pyramid and triangular-based pyramid.</p>
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## **LANGUAGE**

Common Core State Standards	Montessori Materials and Lessons
<p><b>Reading Standards for Literature (RL) – Kindergarten</b></p> <p>1. With prompting and support, ask and answer questions about details and events in a text.</p> <p>2. Retell familiar stories.</p> <p>3. Identify characters, settings, and key events in a story.</p> <p>4. Ask questions about unknown words in a text.</p> <p>5. Recognize common types of texts.</p> <p>6. Name the author and illustrator of a text and define the role of each.</p> <p>9. Compare and contrast the adventures of characters in familiar stories.</p> <p>10. Read emergent-reader literature texts with purpose and understanding.</p>	<p><b>Large Group Read Aloud</b>          1, 2, 3, 4, 5, 6, 9. <i>Focuses on reading comprehension and large group story discussion.</i>          -Text talk.          -Story retelling.          -Vocabulary building.          -Concepts of Print.          -Story Elements (plot, characters, setting)</p> <p><b>Reading</b></p> <p>1. <i>Reading Books</i>          -Development of reading skills.          -Stimulus for writing stories.</p>

**Reading Standards for Informational Text (RI)**

1, 4, 6,. See Above

2. Identify the main topic and main ideas of a text.

3. With prompting and support describe the connection between two events or ideas in a text.

7. Relate pictures or illustrations to the overall text in which they appear.

8. With prompting and support, recognize cause and effect relationships in text.

**Large Group Read Aloud**

2, 3, 7, 8. Focuses on reading comprehension and large group story discussion.

-Text talk.

-Story retelling.

-Vocabulary building.

-Concepts of Print.

-Story Elements (plot, characters, setting)

**Reading Standards: Foundational Print Concepts, Phonological Awareness, Phonics and Word Recognition**

1. Demonstrate understanding of the organizations and basic features of print.
  - a. Identify the front cover, back cover, and title page of a book.
  - b. Follow words from left to right, top to bottom, and page by page.
  - c. Understand that words are separated by spaces in print.
  - d. Recognize and name all upper and lowercase letters of the alphabet.
  
2. Demonstrate understanding of spoken words, syllables, and phonemes.
  - a. Recite and produce rhyming words.
  - b. Count, pronounce, blend, and segment syllables in spoken words.
  - c. Count individual words in spoken phrases or simple sentences.
  - d. Blend and segment consonants and rimes of spoken words.
  - e. Demonstrate phonemic awareness by isolating and pronouncing the initial, medial vowel and final phonemes (sounds) in three-phoneme (CVC) words.
  - f. Add or substitute individual phonemes in simple, one syllable words to make new words.
  
3. Know and apply grade-level phonics and words analysis skills in decoding words.
  - a. Demonstrate basic knowledge of letter-sound correspondences by producing the primary of most frequent sound for each consonant.
  - b. Associate short and long vowel sounds with the graphemes for the five major vowels.
  - c. Read at least twenty-five high frequency words by sight.
  - d. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

**Large Group Read Aloud**

1. *Focuses on reading comprehension and large group story discussion.*

- Text talk.
- Story retelling.
- Vocabulary building.
- Concepts of Print.
- Story Elements (plot, characters, setting)

**Key Lessons for Reading and Writing**

2. *I SPY Game*

- Help become aware of the sounds of language.
- Develop phonemic awareness – words are composed of sounds.

2. *Moveable Alphabet*

- Aid in exploration and analysis of language.
- Associates sound with symbol.
- Child can communicate through CVC words or simple sentences.

3. *Sandpaper Letters*

- To associate the sounds of our language with their symbols.

**Reading**

2. *Object Box 1 (Phonetic CVC)*

- Developing child's awareness that a written word is a group of sounds represented by graphic symbols.
- Introduction to reading.

2. *Phonetic Word Cards*

- Develop reading skills of single phonetic words.
- Includes blending and segmenting.

3. *Silent "e"*

- Introduce the child to silent "e" and other long vowel sounds.

3. *Short/Long Vowel Sounds*

- To familiarize the child with vowel sounds.

3. *Puzzle Words*

- Familiarize the child with words that do not follow regular rules and cannot be sounded out.
- Introduce top 100 High Frequency Words.

**Writing Standards (W)**

1. Use a combination of drawing, dictating and writing to compose opinions in which they tell a reader the name of a topic they are writing about and give an opinion about the topic.
2. Use a combination of drawing, dictating and writing to compose explanatory and informative text in which they name what they are writing and share some information about it.
3. Use a combination of drawing, dictating and writing to narrate a single event or several loosely linked events, tell about the events in order that they occurred and provide a reaction to what happened.

**Speaking and Listening (SL)**

1. Participates in conversations with peers and adults about kindergarten topics and texts being studied in class.
  - a. Listen to others and take turns speaking.
  - b. Continue a conversation through several exchanges.
2. Confirm understanding of information presented orally or through media by asking and answering questions about key details.
3. Ask questions to get information, seek help, or clarify something that is not understood.

**Year-Long Projects**

- 1, 2. *My Kindergarten Thoughts...*
  - Students are asked to choose topics and write and draw their description. Done on a monthly basis. Need to use descriptive text and illustration.
3. *A Tree for all Seasons*
  - Documented study of seasonal changes of trees through student writings and pictures. Includes sequence of events and reactions.

**Large Group Read Aloud**

- 1, 2, 3. *Focuses on reading comprehension and large group story discussion.*
  - Text talk.
  - Story retelling.
  - Vocabulary building.
  - Concepts of Print.
  - Story Elements (plot, characters, setting)

**Oral Presentations**

- 2, 3. Students research and prepare oral presentations on a variety of themes. Presented in a variety of formats.



**Language (L)**

1. Observe conventions of grammar and usage.

- a. Print most upper and lower case letters.
- b. Write a letter or letters for most consonant and short vowel sounds (phonemes).
- c. Form regular plural nouns orally by adding /s/ or /es/.
- e. Produce and expand complete sentences in shared language and writing activities.
- f. Understand and use question words in discussions.

2. Observe conventions of capitalization, punctuation, and spelling.

- a. Capitalize the first word in a sentence and the pronoun I.
- b. Name and identify end punctuation, including periods, question marks and exclamation points.
- c. Spell simple words phonetically using knowledge of letter-sound relationships.

5. Understand word relationships.

- a. Build real-life connections between words and their use.
- b. Distinguish shades of meaning among verbs describing the same general action.
- c. Use common adjectives to distinguish objects.
- d. Demonstrate understanding of common verbs and adjectives by relating them to their opposites (antonyms).

**Reading**

1. *Sorting Letters by Formation*

- Preparation of similarities and differences among letters.
- Preparation for placing letters on lines.

1. *Moveable Alphabet*

- Aid in exploration and analysis of language.
- Associates sound with symbol.
- Child can communicate through CVC words or simple sentences.

**Function of Words**

1. *Noun*

- To introduce to the written noun – naming word.
- To develop clarity of expression and thought, through exploration of the parts of speech.

5. *Adjective*

- Learn function of the adjective – it modifies or describes the noun.
- Develops child's awareness that words have special tasks.

5. *Verb*

- Learn the written verb – action/doing word.
- To learn that words have special tasks. (Also includes lessons on *article, adverb, conjunction and preposition*).

**Writing**

2. *Introduction of Capital Letters and Letter Names*

- Teach the child capital letters and the letter names.
- Preparation for writing.

2. *Punctuation Game*

- Introduce the child to the use of punctuation marks.