## Englewood Public School District <br> Math <br> KINDERGARTEN

Unit 1: Connecting Counting to Cardinality and Size \& Position
Overview: In this unit students will explore numbers from 0-10 and learn how to count, read, write, compare, and order numbers. Students will learn one-to-one correspondence and they will order objects by size, length, and weight. Students will also arrange and organize objects by size and position.

Time Frame: 45 Days

## Enduring Understandings:

- Objects can be counted, sorted, quantified, compared, and described using number names, words, and symbols.
- Numbers have values and names.
- Calendar Skills help us apply math concepts.

Essential Questions: Students will keep considering...

- Why do we use numbers?
- Why are numbers important?
- What are their properties, and how does our number system function?
- What makes a strategy effective and efficient and the solution reasonable?
- How do numbers relate and compare to one another?
- Why do we have a calendar?

| Standards | Topics and Objectives | Activities | Resources | Assessments |
| :---: | :---: | :---: | :---: | :---: |
| K.CC.A.1. Count to 100 by ones and by tens. <br> K.CC.A.3. Write numbers from 0 to 20. Represent a | Topics: <br> Represent, count, write, and compare numbers <br> Identify \& name shapes | As an introduction to this unit, students will watch a video about counting | You Tube: Funky Counting Song \|Numbers 1-10 https://www.youtube.com/wat ch? $v=H k k Y a j 0 m 6 c g \& v l=e n$ | Benchmark <br> Assessments: <br> - Common Formative Assessment |

number of objects with a
written numeral 0-20
(with 0 representing a
count of no objects)
K.CC.B.4. Understand the relationship between numbers and quantities; connect counting to cardinality.
K.CC.B.4a.When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
K.CC.B.4b.Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were

Explore careers that use math and science

## Students will:

- Count orally by ones up to ten.
- Write numbers 0-10.
- Say number names in standard order.
- Pair each object with one number name (one-to-one correspondence).
- Count to tell the number of objects.
- Count objects arranged in any order.
- Identify the last number named as the number of objects counted.
- Count to tell the number of objects arranged in a line, array, circle, or scattered configuration. (subitizing)
- Count to tell the number of objects

Students will practice Calendar Patterns on a daily basis to learn days of the week and months of the year.

Students will have daily math centers to reinforce previously taught math skills and to practice writing numbers. During centers students will be pulled for small group or differentiated instruction based upon student needs and math topics.

Children will listen to and will recite a number rhyme from the math Big Book. (RL.K.10)

Students will count groups of 1 and 2 and write the numerals 1 and 2 .

Students will work in pairs

## Math text: <br> Math In Focus <br> Chapter 11

- Days of the Week Lesson 11.1
- Months of the Year Lesson 11.2

Materials:

- Calendar
- Every Day Counts: Calendar Math


## Materials:

- Exact Path
- Independent Practice
- Hands-on-Math (manipulative/activity kit)


## Math In Focus

Chapter 1
Materials:

- Counters 4 per child
- Connecting Cubes 4 per child
- Numeral 1 \& 2
- Big Book A
- Exact Path


## Formative

Assessments:
Instructors confer with students to investigate their knowledge of math strategies and number sense

Teacher observation and anecdotal notes

Class participation
Do-Now/Ticket to Leave

Checks for Understanding

Math Centers
Mathematical
Discourse Questions:

## Curriculum

Associates iReady:
Promoting
Mathematical
Discourse
https://www2.curriculu massociates.com/produ

## counted.

K.CC.B.4c.Understand
that each successive
number name refers to a
quantity that is one larger.
K.CC.B.5. Count to
answer "how many?" questions about as many as 20 things arranged in a
line, a rectangular array, or a circle, or as many as
10 things in a scattered
configuration; given a
number from 1-20, count
out that many objects.
K.OA.A.1. Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g.,
claps), acting out
situations, verbal
explanations, expressions, or equations.
when asked "how and look at their classmate's many?" questions.

- Count out a number of objects when given a number from 1-10.
- Create addition events with objects up to 10 .
- Create events with drawings and sounds up to 10 .
- Create additional events by acting out situations and with verbal explanations.
- Sort objects into categories.
- Name shapes in order to describe objects in the environment.
- Use terms such as above, below, beside, in front of, behind, and next to in order to describe relative positions of objects.
face and look for one thing that is on their face and then look at two things that are on their face.

Students will read and recite the vegetable rhyme in Big Book A. Students will match and sort, look for sameness and understand the term not the same in the pictures. (NJSLSA.SL1, SL.K.1)

Students will understand different and sort, by using a single attribute. Students will use virtual manipulatives: attribute blocks in a sorting and differentiation activity.

Students will count groups of 3 and write the numeral 3.

Students will understand differences by comparing

- Virtual Manipulatives cts/ready-100-q-
promoting-math-
discourse.aspx

Grab \& Go Centers
Cross-Curricular
Center Activities

## Math In Focus

Pair-sharing

## Summative

Assessments:

- Counters 3 red and 3 green
- Connecting Cubes 3 red and 3 green per child
- Connecting cubes 6 of the same color per pair
- Numerals 1-3 cards
- Attribute blocks
- Big Book A
- Student book

Student Assessments (unit tests \& enrichment tests)

Performance
Tasks/Projects
Exact Path

## Alternative Assessments:

Students will respond to oral questioning and restate or rephrase response to animated math models
MP. 2 Reason abstractly
and quantitatively.
MP. 4 Model with
mathematics.
K.MD.B.3. Classify
objects into given
categories; count the
numbers of objects in each category and sort the
categories by count.
K.G.A.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, and next to

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MP.1 Make sense of
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MP.1 Make sense of
problems and persevere in
problems and persevere in
solving them.

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solving them.
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objects of different sizes and colors.

Students will read Goldilocks and the Three Bears Script to become familiar with quantities and number of characters in a story (4). (RL.K.10)

Students will count groups of 4 and write the numeral 4.

Students will count groups of 5 and write the numeral 5.

Students will match numerals with objects for numbers 1-5.

Students will spot the difference between two pictures and make subtle differences in two pictures. (RL.K.10, NJSLSA.SL.1)

## Students will

 participate in class discussions
## Math In Focus

Chapter 1
Materials:

- 5 Connecting cubes per child, 3 red and two blue
- 16 Counters
- Numeral 4-5 Cards
- Colored pencils 1 box per child
- Paper
- Goldilocks and the Three Bears Script
- Student Book A
- Big Book A



## (RL.K.10)

Students will count from 18 and read and write numerals 1 to 8 .

Students will learn the concept of 0 and use $0-9$ to tell the number of objects.

Students will read and write the numerals 1 to 9 .

Students will pair up sets of objects with other sets of the same quantity.

Students will learn the following vocabulary words and concepts: one more, one less, the same number. (NJSLSA.L4)

Students will pair up objects, showing one-to-one correspondence. Students will use virtual manipulatives to pair up objects 1-9.

- Connecting cubes
- Number cubes
- Counters
- Big Book A
- Student Book
- Numeral cards
- Dot cards
- Student activity cards
- Paper
- Sticky notes
- Paper clips
- Crayons
- Pencils

Math In Focus
Chapter 2

- Connecting cubes



## NJSLSA.SL1, K-LS101)

Students will pair sets of objects (1:1 correspondence). Students will read and recite the Three Blind Mice rhyme. Students will discuss whether there are enough chairs for the mice. Children will pair share about what else the blind mice may need. (CRP4) (RL.K.10)

Students will learn how to order things by size. They will read and recite a rhyme about the three bears and discuss all the different sized items and whose items belong to whom. (CRP4, CRP2, CRP8) (SL.K.1)

Students will order objects by size.

Students will learn comparing math vocabulary words: bigger than, taller

## Math In Focus

Chapter 3

- Connecting cubes
- Counters
- Big Book A
- Student Book
- Student activity cards
- Colored pencils
- Paper
- Sticky notes
- Paper clips
- Crayons














## Math is Fun (K-12)

## www.mathsisfun.com

This site offer mathematics in an enjoyable and easy-tolearn manner, and covers content from Kindergarten through 12th grade.

## Integration of 21st Century Standards NJSLS 9:

### 9.2.4.A.1: Identify reasons why people work, different types of work, and how work can help a person achieve personal and professional

 goals.
### 9.2.4.A.3: Investigate both traditional and nontraditional careers and related information to personal likes and dislikes.

## Accommodations and Modifications:

Students with special needs: Support staff will be available to aid students related to IEP specifications. 504 accommodations will also be attended to by all instructional leaders. Physical expectations and modifications, alternative assessments, and scaffolding strategies will be used to support this learning. The use of Universal Design for Learning (UDL) will be considered for all students as teaching strategies are considered. Additional safety precautions will be made along with additional staff so all student can fully participate in the standards associated with this Math curriculum.
$\boldsymbol{E L L} / \boldsymbol{E} L$ students: Students will be supported according to the recommendations for "can do's" as outlined by WIDA -
https://www.wida.us/standards/CAN_DOs/
This particular unit has limited language barriers due to the physical nature of the curriculum.
Students at risk of school failure: Formative and summative data will be used to monitor student success at first signs of failure student work will be reviewed
to determine support this may include parent consultation, basic skills review and differentiation strategies. With considerations to UDL, time may be a factor in overcoming developmental considerations. More time and will be made available with a certified instructor to aid students in reaching the standards.

Gifted and Talented Students: Students excelling in mastery of standards will be challenged with complex, high level challenges related to the complexity of the Math requirements. This will include allowing more opportunities to demonstrate creativity and the design of original choreography.

## English Language Learners

- Speak and display terminology and movement
- Teacher modeling
- Peer modeling
- Develop and post routines
- Label Math and classroom materials
- Word walls
- Use visuals
- Provide peer tutoring
- Chants, songs, choral reading
- Work toward longer passages as skills in English increase
- Introduce key vocabulary before lesson
- Teacher reads aloud daily
- Preferential seating
- Small group instruction
- Use audio books
- Allow extra time to complete assignments or tests
- Assign a picture or movement to vocabulary words
- Small group instructionguided reading and guided


## Special Education

- Utilize modifications \& accommodations delineated in the student's IEP
- Work with paraprofessional
- Use multi-sensory teaching approaches.
- Work with a partner
- Provide concrete examples and relate all new concepts to previously learned concepts or to typical life skills at home.
- Solidify and refine concepts through repetition.
- Change work requirements to reduce activity time
- Preferential seating
- Pre-teaching and re-teaching skills and concepts
- Front load vocabulary
- Chants, songs, choral reading
- Introduce key vocabulary before lesson
- Teacher reads aloud daily
- Use audio books
- Allow extra time to complete


## At-Risk

- Using visual demonstrations, illustrations, and models
- Allow extra time to complete assignments or tests
- Peer modeling
- Teacher modeling
- Give directions/instructions verbally and in simple written format.
- Peer Support
- Increase one on one time
- Teachers may modify instructions by modeling what the student is expected to do
- Instructions may be printed out in large print and hung up for the student to see during the time of the lesson.
- Review behavior expectations and adjust for personal space or other behaviors as needed.
- Oral prompts can be given.
- Allow answers to be given orally or dictated


## Gifted and Talented

- Curriculum compacting
- Inquiry-based instruction
- Independent study
- Higher order thinking skills
- Adjusting the pace of lessons
- Interest based content
- Real world scenarios
- Student Driven Instruction
- Ask open-ended questions
- Use centers and group students according to ability and interest
- Create an enhanced set of introductory activities
- Organize and offer flexible small group learning activities
- Use centers, contracts, or stations
- Debrief students

| writing <br> - Oral prompts can be given. | assignments or tests <br> - Use a scribe for non-writers <br> - Large print texts and or Braille, or audio books <br> - Augmentative communication system <br> - Assistive Technology <br> - Oral prompts can be given. <br> - Allow answers to be given orally or dictated |  |
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## Interdisciplinary Connections:

## ELA - NJSLS/ELA:

RL.K.10. Actively engage in group reading activities with purpose and understanding.
RI.K.4. With prompting and support, ask and answer questions about unknown words in a text.
RI.K.10. Actively engage in group reading activities with purpose and understanding.
SL.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
NJSLSA.L4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

## Science:

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

## Integration of Technology Standards NJSLS 8:

8.1.2.A.1: Identify the basic features of a digital device and explain its purpose.
8.1.2.E.1: Use digital tools and online resources to explore a problem or issue.
8.1.2.B.1: Illustrate and communicate original ideas and stories using multiple digital tools and resources.

## Career Ready Practices:

CRP2. Apply appropriate academic and technical skills.
CRP4. Communicate clearly and effectively and with reason.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
Vocabulary: number names (zero, one, two, three...ten), digit, join, put together, add, adding, subtract, separate, taking apart, taking from, same amount as, equal, less than, more than, total, compare, sort, category, color words (blue, green, red, etc.), descriptive words (small, big, rough, smooth, bumpy, square, circles, triangles, rectangles, hexagon, cubes, cones, cylinder, sphere, flat, solid, side, corner, angle, edge, face, above, below, beside, in front of , behind, next to, same, different, straight lines, curved (curvy) lines, color words: red, yellow, green, blue, purple, orange, pink, brown, black, white

