Blind Brook School District
Kindergarten
Math Standards Curriculum Alignment
May 2007

September – October

Mathematical Thinking

Content Strands

K.M.3	Relate specific times such as morning, noon, afternoon, and evening to activities and absence or presence of daylight
K.A.1	*Use a variety of manipulatives to create patterns using attributes of color, size, or shape
K.G.1	*Describe characteristics and relationships of geometric objects
K.N.4	Verbally count by 1's to 20
K.N.1	Count the items in a collection and know the last counting word tells how many items are in the collection (1 to 10)
K.N.2	Count out (produce) a collection of a specified size 1 to 10
K.N.3	Numerically label a data set of 1 to 5
K.N.6	Represent collections with a finger pattern up to 10
K.N.5	Verbally count backwards from 10
EM	Introduce the concept of zero
EM	Learn months of year and days of week
EM	Estimate
EM	Measure objects with body parts
EM	Weight comparisons
EM	Sorting coins
EM	Bar graph of age data

Process Strands

K.PS.8	Use manipulatives (e.g., tiles, blocks) to model the action in problems
K.PS.4	Formulate problems and solutions from everyday situations (e.g., counting the number of children in the class, using the calendar to teach counting).
K.PS.1	Explore, examine, and make observations about a social problem or mathematical situation
K.RP.2	Investigate the use of knowledgeable guessing as a mathematical tool
K.RP.3	Explore guesses, using a variety of objects and manipulatives
K.CM.1	Understand how to organize their thought processes with teacher guidance
K.CM.3	Listen to solutions shared by other students
K.CN.1	Recognize the presence of mathematics in their daily lives
K.CN.2	Use counting strategies to solve problems in their daily lives
K.R.3	Use objects to show and understand physical phenomena (e.g., guess the number of cookies in a package)

Vocabulary

*Rhombus	*Trapezoid
*Square	*Hexagon
*Triangle	Rectangle
Afternoon	Evening
Morning	Daylight
Noon	Attribute
Pattern	Shape
Size	Explore
Number	

Theme

To see mathematics in daily life

November-December

Exploring Patterns

Content Strands

K.N.8	Draw pictures or other informal symbols to represent how many in a collection up to 10
K.N.11	Use and understand verbal ordinal terms, first to tenth
K.G.5	Understand and use ideas such as over, under, above, below, on, beside, next to, and between
K.A.2	Recognize, describe, extend, and create patterns that repeat (e.g., ABABAB or ABAABAAAB)
K.G.2	Sort groups of objects by size and size order (increasing and decreasing)
EM	Locate coordinates in a chart (name, day)
EM	Record data (weather, days of week, temperature)
EM	Understand greater or lesser than
EM	Explore symmetry
EM	Introduce cent symbol
EM	Interrupted counting
EM	Number stories involving addition/subtraction, one more, one less

Process Strands

K.PS.3	Act out or model with manipulatives activities involving mathematical content from literature and/or story telling
K.RP.1	Understand that mathematical statements can be true or false
K.RP.2	Investigate the use of knowledgeable guessing as a mathematical tool
K.RP.3	Explore guesses, using a variety of objects and manipulatives
K.RP.4	Listen to claims other students make
K.CM.2	Share mathematical ideas through the manipulation of objects, drawings, pictures, and verbal explanations
K.CM.3	Listen to solutions shared by other students
K.CM.5	Use appropriate mathematical terms, vocabulary, and language
K.R.1	Use multiple representations, including verbal language, acting out or modeling a situation, and drawing pictures as representations

Vocabulary

All Together	Count/Count backwards
Ordinal Numbers (first–tenth)	Collection
Sort	Compare
Examine	Draw
Act out	Model using manipulatives
Identify the problem	True/False
Make observations	Share ideas
Explain	Listen
Guess	*Estimate
*Predict	Solutions

Over, under, above, below, on, beside, next to and between

Theme

To use the language of mathematics

January- March

Developing Number Sense and Exploring Data

Content Strands

K.N.9	Write numbers 1-10 to represent a collection
K.M.1	Name, discuss, and compare attributes of length (longer than, shorter than)
K.M.2	Compare the length of two objects by representing each length with string or a paper strip
K.N.7	Draw pictures or other informal symbols to represent a spoken number up to 10
K.N.10	Visually determine how many more or less, and then using the verbal counting sequence, match and count 1-10
K.S.1	Gather data in response to questions posed by the teacher and students
K.S.4	Represent data using manipulatives
K.S.3	Sort and organize objects by two attributes (e.g., color, size, or shape)
K.S.2	Help to make simple pictographs for quantities up to 10, where one picture represents 1
K.S.5	Identify more, less, and same amounts from pictographs or concrete models
EM	Explore numbers with calculators
EM	Introduce the concept that sixty seconds are in a minute
EM	Introduce and count tally marks
EM	Tell the hour on a clock
EM	Exposure to a number line
EM	Number sentence using plus and minus

Process Strands

K.PS.9	Use drawings/pictures to model the action in problems
K.R.4	Use objects to show and understand social phenomena (e.g., count and represent sharing cookies between friends)
K.CN.3	Recognize and apply mathematics to objects and pictures
K.PS.5	Use informal counting strategies to find solutions
K.PS.10	Explain to others how a problem was solved, giving strategies
K.PS.2	Interpret information correctly, identify the problem, and generate possible solutions
K.CM.4	Formulate mathematically relevant questions with teacher guidance
K.R.2	Use standard and nonstandard representations

Vocabulary

More/less	Fewer/fewer than
Interpret	Data
Tally Mark	Pictograph
Organize	Next
*Sequence	Before/after
Length	As long as
Longer	Longer than
Shorter	Shorter than
Ask questions	Explain

April

Exploration of Geometry/Numbers

Content Strand

K.G.3	Explore vertical and horizontal orientation of objects
K.G.4	Manipulate two- and three-dimensional shapes to explore symmetry
EM	Group by tens
EM	Skip counting
EM	Counting on
EM	Write two and three digit numbers
EM	Explore volume
EM	Explore

Process Strands

K.CN.1 Recognize the presence of mathematics in their daily lives

Vocabulary

*Rhombus	*Square
*Triangle	*Trapezoid
*Hexagon	Rectangle
*Cube	*Oval

May - June

Number Sense**

Content Strand

K.N.12	Solve and create addition and subtraction verbal word problems (use counting based strategies, such as counting on and to ten)
K.N.13	Determine sums and differences by various means

Process Strands

K.PS.6	Experience teacher-directed questioning process to understand problems
K.PS.7	Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
K.R.5	Use objects to show and understand mathematical phenomena (e.g. draw pictures to show a story problem, show number value using fingers on your hand)

Vocabulary

Apply	Use strategies
Sum	Add
Take away	Numeral
Solution	

* Vocabulary is not in NYS Kindergarten curriculum
**Number systems and understanding how to combine numbers is ongoing from September to June