

**Blind Brook School District
Grade 2
Math Standards Curriculum Alignment
June 2005**

September

Graphing

Content Strands

- 2.S.1 Formulate questions about themselves and their surroundings
- 2.S.2 Collect and record data (using tallies) related to the question
- 2.S.3 Display data in pictographs and bar graphs using concrete objects or a representation of the object
- 2.S.4 Compare and interpret data in terms of describing quantity (similarity or differences)
- 2.S.5 Discuss conclusions and make predictions from graphs

Process Strands

- 2.PS.1 Explore, examine, and make observations about a social problem or mathematical situation
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2.CM.1 Understand how to organize their thought processes
- 2.CM.2 Verbally support their reasoning and answer
- 2.CM.3 Share mathematical ideas through the manipulation of objects, drawings, pictures, charts, and symbol in both written and verbal explanations
- 2.CM.4 Listen to solutions shared by other students
- 2.CN.4 Understand how models of situations involving objects, pictures, and symbols relate to mathematical ideas
- 2.CN.6 Understand how mathematical models represent quantitative relationships
- 2.R.4 Connect mathematical representations with problem solving
- 2. RP.7 Listen to and discuss claims other students make

Vocabulary

- | | |
|-----------|--------------------------|
| Formulate | Explore |
| Collect | Interpret |
| Compare | Justify |
| Data | Odd |
| Predict | Tallies |
| Explore | Tally mark |
| Examine | Similarities/differences |

September –October

Number Sense

Content Strands

- 2.N.1 Skip count to 100 by 2's, 5's, 10's
- 2.N.2 Count back from 100 by 1's, 5's, 10's using a number chart
- 2.N.4 Skip count by 4's to 48 for multiplication readiness
- 2.N.3 Skip count by 3's to 36 for multiplication readiness
- 2.N.5 Compare and order numbers to 100

Process Strands

- 2.PS.2 Interpret information correctly, identify the problem, and generate possible solutions
- 2. PS.5 Use informal counting strategies to find solutions
- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2. PS.9 Use drawings/pictures to model the action in problems
- 2. RP.3 Investigate the use of knowledgeable guessing as a mathematical tool
- 2. RP.4 Explore guesses, using a variety of objects and manipulatives
- 2.R.1 Use multiple representations, including verbal and written language, acting out or modeling a situation, drawings, and/or symbols as representations
- 2.CN.1 Recognize the connections of patterns in their everyday experiences to mathematical ideas

Vocabulary

- Understand relationships
- Repeated addition
- Zero as the identify element in addition
- Hundred chart
- Model using manipulative
- Make observations
- Explain
- Recognize patterns

October

Addition, Subtraction, Patterns and Concepts

Content Strands

- 2.N.15 Determine sums and differences of number sentences by various means (e.g., families, related facts, inverse operations, addition doubles, and doubles plus one)
- 2.N.8 Understand and use the commutative property of addition
- 2.N.12 Use zero as the identity element for addition
- 2.N.13 Recognize the meaning of zero in the place value system (0-100)
- 2.N.17 Demonstrate fluency and apply addition and subtraction facts up to and including 18

Process Strands

- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2. PS.9 Use drawings/pictures to model the action in problems
- 2.CN.2 Understand and use the connections between numbers and the quantities they represent to solve problems
- 2.R.7 Use mathematics to show and understand mathematical phenomena (e.g., draw pictures to show a story problem or show number value using fingers on your hand)
- 2.CN.8 Recognize and apply mathematics to solve problems
- 2.CM.5 Formulate mathematically relevant questions

Vocabulary

Commutative property of addition
Two-digit numbers
Fact family (related facts)
Decompose
Compose
Identify elements for addition
Whole numbers

November - December

Place Value and Patterns to 100

Content Strands

- 2.N.14 Use concrete materials to justify a number as odd or even
- 2.N.9 Name the number before and the number after a given number, and name the number(s) between two given numbers up to 100 (with and without the use of a number line or a hundreds chart)
- 2.A.1 Use the symbols $<$, $>$, $=$ (with and without the use of a number line) to compare whole numbers up to 100
- 2.N.15 Determine sums and differences of number sentences by various means (e.g., families, related facts, inverse operations, addition doubles, and doubles plus one)
- 2.N.8 Understand and use the commutative property of addition
- 2.N.17 Demonstrate fluency and apply addition and subtraction facts up to and including 18

Process Strands

- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2.R.6 Use mathematics to show and understand social phenomena (e.g., count and represent sharing cookies between friends)
- 2.CN.9 Recognize and apply mathematics to objects, pictures and symbols
- 2. RP.1 Understand that mathematical statements can be true or false

Vocabulary

Place Value
Two-digit number
Doubles
Doubles minus one
Doubles plus one
Greater than
Less than
Fair share
Even number

December- January

Double-Digit Addition/Measurement

Content Strands

- 2.N.6 Develop an understanding of the base ten system:
 - 10 ones = 1 ten
 - 10 tens = 1 hundred
 - 10 hundreds = 1 thousand
- 2.N.16 Use a variety of strategies to solve addition problems using one- and two-digit numbers with and without regrouping
- 2N.10 Use and understand verbal ordinal terms
- 2.N.11 Read written ordinal terms (first through ninth) and use them to represent ordinal relations
- 2.N.22 Estimate the number in a collection to 100 and then compare by counting the actual items in the collection
- 2.A.2 Describe and extend increasing or decreasing.(+, -) sequences and patterns (numbers or objects up to 100)
- 2.M.1 Use non-standard and standard units to measure both vertical and horizontal lengths
- 2.M.2 Use a ruler to measure standard units (including whole inches and whole feet)
- 2.M.3 Compare and order objects according to the attribute of length
- 2.M.4 Recognize mass as a qualitative measure (e.g., Which is heavier? Which is lighter?)
- 2.M.5 Compare and order objects, using lighter than and heavier than
- 2.M.10 Select and use standard (customary) and non-standard units to estimate measurements

Process Strands

- 2.PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling
- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2.R.5 Use mathematics to show and understand physical phenomena (e.g. estimate and represent the number of apples in a tree)
- 2.R.3 Use standard and nonstandard representations

Vocabulary

Heavier	Standard representation
Lighter	Label
Nonstandard units	Formulate questions
Standard units	Organize
Feet	Share ideas
Nonstandard representation	

Use the language of mathematics

February-March

Double-Digit Subtraction and Money

Content Strands

- 2.N.16 Use a variety of strategies to solve addition and subtraction problems using one- and two-digit numbers with and without regrouping
- 2.M.6 Know and recognize coins (penny, nickel, dime, quarter) and bills (\$1, \$5, \$10, and \$20)
- 2.M.7 Recognize the whole dollar notation as \$1, etc.
- 2.M.8 Identify equivalent combinations to make one dollar

Process Strands

- 2.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling
- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking

Vocabulary

Dollar (\$)
Equivalent
Estimate
Multiple representation
Compensation

March –April

Time

Content Strands

- 2.M.9 Tell time to the half hour and five minutes using both digital and analog clock

Process Strands

2. 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).
- 2.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or story telling
2. PS.6 Experience teacher-directed questioning process to understand problems
2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking.

Vocabulary

Half hour
Explore guesses
Apply mathematics
Equal to

May

Problem Solving Applications

Content Strands

- 2.N.7 Use a variety of strategies to compose and decompose two-digit numbers
- 2.N.18 Use doubling to add 2-digit numbers
- 2.N.19 Use compensation to add 2-digit numbers
- 2.N.16 Use a variety of strategies to solve addition and subtraction problems using one- and two-digit numbers with and without regrouping

Process Strands

- 2. RP.2 Recognize that mathematical ideas need to be supported by evidence
- 2. RP.6 Develop and explain an argument verbally or with objects
- 2.CN.5 Understand meanings of operations and how they relate to one another
- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2. PS.8 Use manipulatives (e.g., tiles, blocks) to model the action in problems
- 2. PS.10 Explain to others how a problem was solved, giving strategies and justifications
- 2. RP.5 Justify general claims, using manipulatives
- 2. RP.8 Use trial and error strategies to verify claims
- 2.CN.7 Recognize the presence of mathematics in their daily lives
- 2.R.2 Share mental images of mathematical ideas and understandings
- 2.CN.3 Compare the similarities and differences of mathematical ideas

Vocabulary

- | | |
|----------------------|----------------------------------|
| Justify claims | Understand meaning of operations |
| Investigate | Increasing sequences |
| Explore guesses | Decreasing sequences |
| Regrouping | Two-digit number |
| Place value | Repeated subtraction |
| Use trial and error | Estimate |
| Develop and argument | |

June

Geometry

Content Strands

- 2.G.1 Experiment with slides, flips, and turns to compare two-dimensional shapes
- 2.G.2 Identify and appropriately name two-dimensional shapes: circle, square, rectangle, and triangle (both regular and irregular)
- 2.G.3 Compose (put together) and decompose (break apart) two-dimensional shapes
- 2.G.4 Group objects by like properties
- 2.G.5 Explore and predict the outcome of slides, flips, and turns of two-dimensional shapes
- 2.G.6 Explore line symmetry
- 2.N.20 Develop readiness for multiplication by using repeated addition
- 2.N.21 Develop readiness for division by using repeated subtraction, dividing objects into groups (fair share)

Process Strands

- 2. PS.6 Experience teacher-directed questioning process to understand problems
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking
- 2.CM.6 Use appropriate mathematical terms, vocabulary, and language

Vocabulary

Compose shapes	Slide (translation)
Decompose shapes	Square
Flip (reflection)	Triangle
Irregular shape	Turn (rotation)
Line symmetry	Multiplication
Properties	Division
Rectangle	