

**Pocantico Hills School District
Grade 2 Math Curriculum Draft**

Number Sense / Statistics

Content Strands

- 2.N.5 Compare and order numbers to 100**
- 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 hundred chart)**
- 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.1 Skip count to 100 by twos, fives, and tens**
- 2.N.14 Use concrete materials to justify a number as odd or even**
- 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**
- 2.N.17 Demonstrate fluency and apply addition and subtraction facts up to and including 18**
- 2.N.8 Understand and use the commutative property of addition**
- 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.12 Use zero as the identity element for addition**

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.6 Experience teacher-directed questioning process to understand problems**
- 2. PS.5 Use informal counting strategies to find solutions**
- 2. PS.8 Use manipulatives (e.g., tiles, blocks) to model the action in problems**
- 2. PS.9 Use drawings/pictures to model the action in problems**
- 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.CM.6 Use appropriate mathematical terms, vocabulary, and language**
- 2.CN.7 Recognize the presence of mathematics in their daily lives**
- 2.CN.8 Recognize and apply mathematics to solve problems**
- 2.CN.9 Recognize and apply mathematics to objects, pictures and symbols**
- 2.CN.1 Recognize the connections of patterns in their everyday experiences to mathematical ideas**
- 2.CN.2 Understand and use the connections between numbers and the quantities they represent to solve problems**
- 2.CN.5 Understand meanings of operations and how they relate to one another**

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.6 Use mathematics to show and understand social phenomena (e.g. count and represent sharing cookies between friends)

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. PS.10 Explain to others how a problem was solved, giving strategies and justifications

2. RP.6 Develop and explain an argument verbally or with objects

Vocabulary

apply mathematics

collection

commutative property of addition

compare doubles

compare similarities and differences

data

develop an argument

doubles

double plus one

doubles minus one

equal to

estimate

even number

explain

fact family (related facts)

formulate questions

hundred chart

identity element for addition

interpret

justify

label

multiple representations

odd number

predict

recognize patterns

share ideas

tallies

tally mark

understand meaning of operations

understand relationships

use the language of mathematics

zero as the identity element in addition

Number Sense / Place Value

Content Strands

- 2.N.13 Recognize the meaning of zero in the place value system (0-100)**
- 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.7 Use a variety of strategies to compose and decompose two-digit numbers 2.N.2**
 - Count back from 100 by ones, fives, and tens using a number chart**
- 2.A.2 Describe and extend increasing or decreasing (+, -) sequences and patterns (numbers or objects up to 100)**
- 2.A.1 Use the symbols $<$, $>$, $=$ (with and without the use of a number line) to compare whole numbers up to 100**
- 2.N.22 Estimate the number in a collection to 100 and then compare by counting the actual items in the collection**

Process Strands

- 2. PS.10 Explain to others how a problem was solved, giving strategies and justifications**
- 2. PS.7 Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking**
- 2.CN.4 Understand how models of situations involving objects, pictures, and symbols relate to mathematical ideas**
- 2. RP.1 Understand that mathematical statements can be true or false**
- 2. RP.8 Use trial and error strategies to verify claims**
- 2. RP.7 Listen to and discuss claims other students make**
- 2. RP.5 Justify general claims, using manipulatives**
- 2.CN.6 Understand how mathematical models represent quantitative relationships**
- 2.R.4 Connect mathematical representations with problem solving**

Vocabulary

compose
decompose
decreasing sequences
greater than ($>$)
increasing sequences
less than ($<$)
place value
trial and error whole numbers whole numbers
true and false
whole numbers

Money / Time / Measurement

Content Strands

- 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
- 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
- 2.M.9 Tell time to the half-hour and five minutes using digital and analog clocks
- 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 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. RP.2 Recognize that mathematical ideas need to be supported by evidence
- 2.PS.3 Act out or model with manipulatives activities involving mathematical content from literature and/or storytelling
- 2.PS.1 Explore, examine, and make observations about a social problem or mathematical situation
- 2.PS.2 Interpret information correctly, identify the problem, and generate possible solutions
- 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.R.3 Use standard and nonstandard representations
- 2.R.2 Share mental images of mathematical ideas and understandings
- 2.CM.1 Understand how to organize their thought processes
- 2.CM.5 Formulate mathematically relevant questions

Vocabulary

compensation
dollar
equivalent
examine
explore
explore guesses
feet
half hour
heavier and lighter
identify the problem
make observations

model using manipulatives
nonstandard representation
organize
standard representation
regroup
two digit number
word order

Geometry / Multiplication Readiness

Content Strands

2.G.2 Identify and appropriately name two-dimensional shapes: circle, square, rectangle, and triangle (both regular and irregular)
2.G.4 Group objects by like properties
2.G.6 Explore line symmetry
2.G.1 Experiment with slides, flips, and turns to compare two-dimensional shapes
2.G.5 Explore and predict the outcome of slides, flips, and turns of two-dimensional shapes
2.G.3 Compose (put together) and decompose (break apart) two-dimensional shapes
2.N.3 Skip count by threes to 36 for multiplication readiness
2.N.4 Skip count by fours to 48 for multiplication readiness
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.CN.3 Compare the similarities and differences of mathematical ideas

Vocabulary

compose shapes
decompose shapes
division
fair share
flip (reflection)
irregular shape
line symmetry
multiplication
properties
rectangle
regular shape
repeated addition
repeated subtraction
slide (translation)
square
triangle
turn (rotation)