



Program Transfer Goals

- Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.
- Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.
- Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.
- Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

PACING

First Grading Period		Second Grading Period	Third Grading Period			Fourth Grading Period		
Unit 1: Understanding Numbers	Unit 2: Basic Facts	Unit 3: Addition and Subtraction	Unit 4: Personal Financial Literacy	Unit 5: Money	Unit 6: Multiplication and Division	Unit 7: Geometry	Unit 8: Fractions	Unit 9: Measurement
BOY Screener			MOY Screener			EOY Screener		

Assurances for a Guaranteed and Viable Curriculum [STANDARDIZED ACROSS ALL CONTENT AREAS]

Adherence to this scope and sequence affords every member of the learning community clarity on the knowledge and skills on which each learner should demonstrate proficiency. In order to deliver a guaranteed and viable curriculum, our team commits to and ensures the following understandings:

Shared Accountability: Responding to the Needs of All Learners

- High levels of learning for all students.
- The district and course formative assessments aligned to the standards for this course support educators and learners in monitoring academic achievement and leveraging interventions.

Shared Understanding: Curriculum Design

- The district curriculum design weaves together the elements of content, skills and assessments in order to adhere to curriculum design at the macro and micro level, ensuring vertical alignment.
- The district curriculum incorporates standards, scope and sequence, enduring understandings, essential questions, performance assessments, and recommended resources.

Interdependence: Curriculum Units

Members of the learning community utilize the curriculum units, plan collaboratively, and reflect on results for continuous improvement.

UNIT 1: UNDERSTANDING NUMBERS

TIMELINE: 6 WEEKS - 1ST GRADING PERIOD

Learners use manipulatives to represent number in different ways. Learners use manipulatives to compose and decompose numbers and represent them in standard, word and expanded form. Number lines are used to represent the position of a number in relation to others. Learners use objects to determine whether a number is even or odd. Learners begin comparing numbers by generating numbers that are 10 or 100 more or less than a given number. Then they compare and order whole numbers, and represent this comparison using symbols. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions and answer questions.

■ Transfer Goal:

- o Communicate representations of numbers using objects, pictures, standard form, and expanded form
- o Communicate comparisons of numbers using written and oral language, and symbols
- o Select tools, such as open number lines and a knowledge of place value to order numbers
- o Use written or oral language to explain and justify the order and comparisons of numbers
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

The mathematical relationships found in the place value system

Students will be skilled at...

Composing and decomposing numbers up to 1,200; using standard, word, and expanded forms to represent numbers up to 1,200; Generating a number that is greater than or less than a given whole number up to 1,200; use place value to compare and order whole numbers up to 1,200; using comparative language; using symbols ($>$, $=$, $<$) to describe a comparison; locating the position of a given whole number on an open number line; naming the whole number that corresponds to a specific point on a number line; determining whether a number up to 40 is even or odd; determining the number that is 10 or 100 more or less than a given number up to 1,200; organize and represent data using a pictograph and bar graph; solving problems using data

UNIT 2: BASIC FACTS

TIMELINE: 2 WEEKS - 1ST GRADING PERIOD

Learners build computational fluency by using invented and modeled strategies. These strategies should be efficient and encourage flexible thinking. Eventually, the strategies used become so effortless that it appears that the learner has the basic fact memorized. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions and answer questions.

■ Transfer Goal:

- o Use written and oral language to communicate strategies used to add and subtract
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

Various strategies for basic facts

Students will be skilled at...

Recalling addition facts using strategies; recalling subtraction facts using strategies; organize and represent data using a pictograph and bar graph; solving problems using data

UNIT 3: ADDITION AND SUBTRACTION STRATEGIES

TIMELINE: 8 WEEKS - 2ND GRADING PERIOD

Learners use efficient strategies, including the standard algorithm, to solve contextual word problems that involve addition and subtraction of whole numbers within 1,000. Unknowns in these problems may be any of the terms. Learners also generate and solve problems they have generated, based on a given number sentence. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions and answer questions.

■ Transfer Goal:

- Use a problem-solving model to solve contextual problems involving addition and subtraction
- Use written and oral language to explain strategies used to solve contextual problems involving addition and subtraction
- Select tools to collect, sort, and organize data
- Use graphs to communicate the organization of data

Students will know...

The meaning of addition and subtraction

Students will be skilled at...

Adding up to four 2-digit numbers; subtracting 2-digit numbers; solving, generating, and representing word problems; organize and represent data using a pictograph and bar graph; solving problems using data

UNIT 4: PERSONAL FINANCIAL LITERACY

TIMELINE: 2 WEEKS - 3RD GRADING PERIOD

This unit focuses on personal financial literacy. Learners explain and compare the concepts of saving and spending, and deposits and withdrawals. They provide examples of borrowing and lending, and explain the financial effects of these decisions using calculations and written or oral language. Learners calculate the cost of producing a simple item. Learners differentiate between producers and consumers. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, and generate and answer questions.

■ Transfer Goal:

- Select tools to calculate costs and savings of money
- Explain and justify financial decisions
- Explain concepts of saving and spending, and deposits and withdrawals
- Select tools to collect, sort, and organize data
- Use graphs to communicate the organization of data

Students will know...

Saving is an alternative to spending; the difference between deposit and withdrawal; examples of borrowing; examples of lending; the difference between consumers and producers

Students will be skilled at...

Calculate the cost to produce a simple item; calculate how money saved can accumulate into a larger amount over time; organize and represent data using a pictograph and bar graph; solving and writing problems using data

UNIT 5: MONEY

TIMELINE: 3 WEEKS - 3RD GRADING PERIOD

Students use strategies to determine the value of a collection of coins, and represent that value in a variety of ways (using the cent symbol, the dollar sign, and/or decimal point). Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, and generate and answer questions.

■ Transfer Goal:

- o Select tools to determine the value of a collection of coins
- o Use written and oral language to communicate the value of a collection of coins
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

The cent symbol, dollar sign, and decimal point can be used to represent the value of money

Students will be skilled at...

Determining the value of a collection of coins; using the cent symbol; using the dollar sign; using the decimal point; organize and represent data using a pictograph and bar graph; solving and writing problems using data

UNIT 6: MULTIPLICATION AND DIVISION

TIMELINE: 3 WEEKS - 3RD GRADING PERIOD

Learners identify contextual situations that involve equal groups. Learners use manipulatives and pictures to solve using repeated addition or repeated subtraction and explain the process used to solve. Later, learners create their own multiplication and division situations. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, and generate and answer questions.

■ Transfer Goal:

- o Select tools to model and solve contextual multiplication and division situations
- o Use written and oral language to describe contextual multiplication and division situations
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

Groups must be equal to use multiplicative strategies; groups must be equal to use division strategies

Students will be skilled at...

Modeling, creating, and describing contextual multiplication situations; modeling, creating, and describing contextual division; organize and represent data using a pictograph and bar graph; solving and writing problems using data situations

UNIT 7: GEOMETRY

TIMELINE: 6 WEEKS - 3RD AND 4TH GRADING PERIOD

Learners begin by classify 2D and 3D shapes based on attributes, and use written and oral language to justify the classification. Learners create 2D shapes with specific attributes. Learners compose 2D and 3D shapes, and decompose 2D shapes. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, answer questions, and make predictions.

■ Transfer Goal:

- o Use written and oral language to explain, and justify the classifications of shapes
- o Select tools to compose 2D and 3D shapes in multiple ways, and decompose 2D shapes
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

Formal geometric language; informal geometric language

Students will be skilled at...

Create 2D shapes based on given attributes; classify and sort 3D solids according to attributes; classify and sort 2D shapes according to attributes; compose shapes; decompose shapes; organize and represent data using a pictograph and bar graph; solving and writing problems using data; drawing conclusions from data and making predictions about data

UNIT 8: FRACTIONS

TIMELINE: 4 WEEKS - 4TH GRADING PERIOD

Learners are presented with contextual problems that require a need for partitioning a whole into equal parts. Learners explain that the more fractional parts within the whole, the smaller the parts, and the fewer fractional parts within the whole, the larger the part. Learners use area models and linear models to count fractional parts, and identify the number of fractional parts that are equal to one whole. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, answer questions, and make predictions.

■ Transfer Goal:

- o Select tools to partition wholes into fractional pieces
- o Use written or oral language to identify, describe, and iterate fractional parts
- o Select tools to collect, sort, and organize data
- o Use graphs to communicate the organization of data

Students will know...

The more fractional parts used to make a whole, the smaller the part; the fewer the fractional parts, the larger the part;

Students will be skilled at...

Partitioning objects into equal parts; naming fractional parts; counting fractional parts beyond one whole; recognizing how many parts it takes to equal one whole; identifying examples and non-examples of halves, fourths, and eighths; organize and represent data using a pictograph and bar graph; solving and writing problems using data; drawing conclusions from data and making predictions about data

UNIT 9: MEASUREMENT

TIMELINE: 3 WEEKS - 4TH GRADING PERIOD

Learners use measurement tools (rulers, measuring tape, meter sticks, yardsticks, digital clocks, analog clocks, etc.) as they begin using standard units (standard system and metric system) to measure the length of objects. Learners become familiar with the size of different standard units, select the appropriate unit, and describe the relationship between the size of units. Learners use square units to cover objects as they determine the area of that object. Learners also represent distance on a numberline. Throughout this unit, learners will organize data using pictographs and bar graphs and explain the representation. Learners use the data to draw conclusions, answer questions, and make predictions.

■ Transfer Goal:

- Select tools to measure length and area using standardized units
- Use written and oral language to communicate measurement
- Explain and justify the use of specific units when measuring
- Select tools to collect, sort, and organize data
- Use graphs to communicate the organization of data

Students will know...

The inverse relationship between the size of the unit and the number of units needed; the difference between a.m. and p.m.

Students will be skilled at...

Finding the length of objects with standard units; representing whole numbers as distances from any given location on a number line; determine the length of an object to the nearest marked unit; using rulers, yardsticks, meter sticks, or measuring tapes; determine a solution to a problem involving length; estimating lengths; use concrete models of square units to find the area of a rectangle; describing the measurement using a number and the unit; read time to the nearest one-minute increment; write time to the nearest one-minute increment; using analog and digital clocks to tell time; organize and represent data using a pictograph and bar graph; solving and writing problems using data; drawing conclusions from data and making predictions about data