

# **Haas Elementary Parent Curriculum Guide**

## **Kindergarten Language Arts Reading, Writing, Speaking & Listening**

### **Reading**

Students will:

- Use context clues while attaching meaning to print.
- Construct meaning from stories, poems, and messages.
- Track words from left to right.
- Recognize words that rhyme.
- Identify letters and their sounds.
- Develop a sight vocabulary.
- Make connections between ideas in literature.

### **Writing**

Students will:

- Become proficient in writing their first and last name.
- Form upper and lower case letters clearly.
- Communicate thoughts on paper using developmental writing skills.
- Compose stories using the writing process.

### **Listening**

Students will:

- Demonstrate appropriate listening behavior.
- Follow routine and extended directions.
- Retell stories and messages heard.

### **Speaking**

Students will:

- Develop oral language skills.
- Communicate experiences and ideas effectively.
- Speak to adults and other children with confidence.
- Contribute to group discussions.

## **Math Kindergarten**

Students will:

- Identify and continue a pattern
- Use patterns to solve problems
- Compare, sort, and classify familiar shapes and other objects
- Measure using pan balance, unifix cubes, thermometers, and other non-standard methods
- Apply measurement to describe real-world problems (lighter, heavier, shorter, longer)
- Organize data using tallies, charts, and graphs
- Read and write numbers 0 to 20
- Count to 100+
- Skip count by 2's, 5's and 10's
- Use manipulatives to correlate addition and subtraction
- Use story problems to solve number sentences
- Identify pennies, nickels, dimes, quarters, and dollar bills

## **Science Kindergarten**

Students will:

- Use the scientific method through experimentation to solve real-world problems
- Explain the life cycle of plants and animals
- Recognize how healthy diets help people grow
- Describe plant parts such as roots, stems, leaves, flowers, fruits, and seeds
- Develop an awareness of different insects
- Classify common objects using the five senses
- Describe the different forms of water
- Determine various weather conditions
- Explain safety precautions during severe weather and other health hazards
- Identify and describe the four seasons
- Compare the sun, moon and earth
- Demonstrate the understanding of the orbits of the earth, moon, and other planets

## **Social Studies Kindergarten**

Students will:

- Identify rules at school and discuss consequences for breaking them
- Make choices that contribute to classroom learning
- Describe how people use the environment to meet human needs and wants
- Suggest ways to improve their environment
- Explore the surrounding community and local attractions, businesses and occupations
- Participate in themes, such as “About Me” and “My Family”
- Use days, weeks and months as intervals of time
- Distinguish amongst yesterday, today and tomorrow
- Use clocks to tell time to the hour

## **First Grade Language Arts Reading, Writing, Speaking & Listening**

### **Reading**

Students will:

- Recognize a growing number of basic sight vocabulary words.
- Understand author/illustrator’s purpose.
- Read using many different strategies (picture clues, phonics, context clues, rereading, retelling).
- Learn story elements: cause/effect, beginning, middle, end; main idea; sequence of events; character; setting; problem/solution.
- Progress toward independent reading with fluency;
- Comprehend both oral and written material.
- Make a connection between real life stories and literature.
- Read a variety of literature including:
  - \*Poetry
  - \*fantasy
  - \*informational
  - \*realistic fiction
  - \*folk tales
  - \*simple how to

## Writing

Students will:

- Use Zaner-Bloser manuscript legibly.
- Use appropriate spacing, capitalization, early punctuation such as capital letters to begin a sentence and periods to end a sentence.
- Compose complete sentences.
- Use correct grammar, focusing on nouns, verbs and adjectives.
- Use developmental (phonetic) spelling moving toward formal spelling.
- Write for a variety of purposes in all content areas and audiences including:
  - \*how to
  - \*descriptive
  - \*short informational piece
  - \*poetry
  - \*letter
  - \*personal story
  - \* class research project

## Listening and Speaking

Students will:

- Use appropriate skills including:
  - \*staying on topic
  - \*make eye contact
  - \*adjust voice-volume
  - \*expressing relevant ideas

## **MATH** **First Grade**

Throughout the school year the following problem solving strategies will be used regularly in first grade:

- Patterns (shapes or numbers that repeat or grow)
- Logical Reasoning (process of elimination)
- Draw a picture (ordinal pictures, operational)
- Act it out (ordinal pictures)
- Make a table (data collection and patterns)
- Make a list (combinations, how many different ways, mystery numbers)
- Guess and check (estimation)
- Work backwards (reverse operations, check your answers)

## First Quarter

### Number Sense

Students will:

- Count by 1's and 10's to 110.
- Count and record tally marks to represent numbers.

### Geometry Patterning

Students will:

- Create and describe repeating patterns.
- Predict the next element in a simple repeating pattern.

### Numbers and Operations

Students will:

- Be able to add and subtract for numbers 2 through 10.

### Data Graphing

Students will:

- Create and organize data to use in pictographs.
- Read and interpret pictographs.

## Second Quarter

### Sorting

Students will:

- Sort objects by physical attributes.

### Number Sense

Students will:

- Count by 5's to 110.
- Read and write numbers to 110.
- Order numbers to 50 (using more and less than, greater, fewer).

### Numbers and Operations

Students will:

- Add and subtract for numbers less than 20 (facts up to  $10=10$ ).

### Geometry Patterns

Students will:

- Create and describe patterns as growing patterns and repeating patterns.

## Third Quarter

### Sorting

Students will:

- Sort numbers by position, quantity, odd or even.

### Number Sense

Students will:

- Count to 110 by 1's, 2's, 5's and 10's starting from any number in the sequence.
- Order numbers 10 –110.
- Identify 10 more than or 10 less than for numbers up to 110.
- Count backwards by 1's from any given number between 1 and 100.

### Place Value

Students will:

- Compose and decompose numbers through 30 using tens and ones.

### Measurement (Time)

Students will:

- Tell time on a twelve-hour clock face to the hour and half hour.
- Tell time on digital clocks
- Read and write time from an analog or digital clock.
- Use the calendar to identify units of time (month, day, yesterday, tomorrow, seasons).

### Measurement (Money)

Students will:

- Identify the different denominations or coins and bills.
- Name the value of the penny, nickel, dime and quarter
- Use the symbols for dollars and cents.

### Measurement (Length)

Students will:

- Measure the lengths of objects to the nearest whole unit.
- Compare and contrast measured lengths using words shorter, longer, taller, shorter, etc.

### Measurement (Problem Solving)

Students will:

- Solve one-step word problems using the correct process. For example: adding when the problem calls for addition.

### Algebra Simple Equations

Students will:

- Apply knowledge of fact families to solve simple open sentences for addition and subtraction.

## Fourth Quarter

### Data and Probability

Students will:

- Make pictographs of given data
- Understand the difference between possible and impossible

### Number Sense

Students will:

- Identify common fractions.
- Identify equal parts

### Geometry Shapes Locations

Students will:

- Create common 2D and 3D shapes and describe their physical & geometric attributes.
- Describe relative position of objects using words such as above, below, behind, etc.

### Numbers and Operations

Students will:

- Read and write numbers to 110 in words.
- Add three one-digit numbers.
- Calculate mental sums and differences.

## Science First Grade

In first grade the science units are broken into 12-week units beginning with life science, moving to physical science and finally, earth science.

### September, October and November

#### Life Science

Students will:

- Organize living things into categories. For example, plants and animals.
- Understand the functions of observable body parts of animals.
- Compare and contrast familiar organisms and answer how they are classified.
- Understand that living things have a life cycle.
- Explain how living things obtain and use energy.
- Explain each part of a seed plant and how it supports plant life.

## Ecosystems

Students will:

- Understand how parts of an ecosystem are related and how they interact.
- Understand how energy is distributed to living things in an ecosystem.

## Heredity

Students will:

- Identify that characteristics of living things are passed on through generations.

## December, January and February

### Physical Science

#### Matter and Energy

Students will:

- Describe the things around them as a solid, liquid or gas.
- Use detail to compare and contrast the physical characteristics of objects.

#### Motion of Objects

Students will:

- Identify how magnetic objects interact with other magnetic or non-magnetic material.

## March, April and May

### Atmosphere and Weather

Students will:

- Identify the relationships between human activities and the weather.
- Understand what makes up weather and how it changes from day to day, season to season and over long periods of time.

### Geosphere

Students will:

- Explain what the earth's surface is like using details.
- Describe major features of the earth.
- Recognize and describe different types of earth material.
- Explain how the earth's surface changes over time.
- Understand the affects of technology have had on the earth's surface.

### Hydrosphere

Students will:

- Explain how water moves from place to place.
- Understand that human activities interact with the hydrosphere.

# **Social Studies**

## **First Grade**

### **First Semester (Card Markings 1 & 2)**

Throughout the year each unit will revisit common themes such as:

- Common Good
- Diversity
- Truth
- Liberty
- Pursuit of Happiness
- Patriotism
- Justice
- Liberty
- Individual Rights

#### **Family and School**

Students will:

- Compare and contrast how families are alike and different.
- Identify the rules for getting along at home and at school.
- Understand how families change over time.
- Understand the importance of following rules.

#### **Past and Present (History)**

Students will:

- Compare and contrast schools of today and schools from long ago.

## **Second Semester**

#### **Economy**

Students will:

- Compare and contrast human and natural resources
- Explain the difference between wants and needs.
- Explain the relationship between goods and services.
- Understand the importance of choice in our economy.

#### **Civics**

Students will:

- Understand four specific core democratic values.
  1. Equality – Giving everyone an equal opportunity.
  2. Justice – Taking turns and being fair to one another.
  3. Popular Sovereignty – Understanding the concept of majority rules.

**Haas Elementary  
Parent Curriculum Expectations**

**Second Grade  
Language Arts  
Reading, Writing, Speaking & Listening**

**Reading**

Students will:

- Understand author/illustrator's purpose.
- Read using many different strategies (picture clues, phonics, context clues, rereading, summarizing, predictions)
- Learn story elements such as cause/effect, beginning, middle and end; main ideas, sequencing events, character, setting, problem, solution, metaphor and simile.
- Read independently with fluency.
- Comprehend both oral and written material.
- Make a connection between real life stories and literature.
- Read a variety of literature including:
  - \*poetry
  - \*fantasy
  - \*legends
  - \*how-to
  - \*personal correspondence
  - \*fiction
  - \*non-fiction
  - \*drama
  - \*informational magazines

**Writing**

Students will:

- Use Zaner-Bloser manuscript legibly.
- Write with complete sentences using nouns, verbs, commas, contractions and capitalization.
- Use formal spelling.
- Use correct grammar, focusing on nouns, verbs, adjectives, pronouns, proper nouns, contractions, and singular possessives.
- Write for a variety of purposes in all content areas and audiences including:
  - \*personal stories
  - \*poetry
  - \*research paper(s)
  - \*critique based on a writing rubric
  - \*fantasy
  - \*magazine article
  - \*personal correspondence

## Listening and Speaking

Students will:

- Use language to communicate with all kinds of people for a variety of reasons (expressing their wants and needs and to solve problems).
- Plan and deliver simple presentations or reports that are organized and include illustrations, facts and details.
- Use eye contact and proper etiquette.

## MATH Second Grade

Throughout the school year the following problem solving strategies will be used regularly in second grade:

- Patterns (shapes or numbers that repeat or grow)
- Logical Reasoning (process of elimination)
- Draw a picture (ordinal pictures, operational)
- Act it out (ordinal pictures)
- Make a table (data collection and patterns)
- Make a list (combinations, how many different ways, mystery numbers)
- Guess and check (estimation)
- Work backwards (reverse operations, check your answers)

### First Quarter

## Geometry and Measurement

### Shapes

Students will:

- Identify, describe and compare familiar two-dimensional shapes such as triangles, rectangles, squares, circles, semi-circles.
- Classify familiar plane and solid objects. Example: Square, rectangle, rhombus, by common attributes such as shape, size, color, roundness or number of corners and explain which attributes are being used for classification.
- Measure lengths in meters, centimeters, inches, feet and yards approximating to the nearest whole unit and using abbreviations such as cm, m, in, ft, yd.

## Length & Area

Students will:

- Explore and predict the results of putting together and taking apart two-dimensional shapes.
- Draw rectangles and triangles and compute perimeters by adding lengths of sides, recognizing the meaning of perimeter.
- Compare lengths; add and subtract lengths (no conversion of units).
- Solve simple word problems involving length.

## Transformations

Students will:

- Measure area using non-standard units to the nearest whole unit.
- Find the area of a rectangle with whole number side lengths by covering with unit squares and counting, or by using a grid of unit squares.
- Recognize that shapes that have been slid, turned or flipped are the same shape. Example: a square rotated 45 degrees is still a square.

## Locations

Students will:

- Find and name locations using simple coordinate systems such as maps and first quadrant grids.

## Temperature

Students will:

- Read temperature using the scale on a thermometer, in degrees Fahrenheit.

## Symmetry and Congruence

Students will:

- Identify lines of symmetry in two-dimensional shapes.
- Identify congruent parts of two-dimensional and common shapes.

## Number Sense

Students will:

- Count to 1000 by 1's, 10's and 100's starting from any number in the sequence.
- Read and write numbers to 1000 in numerals and words and relate them to the quantities they represent.
- Count orally by 3's and 4's, starting with 0, and by 2's, 5's, and 10's starting from any number.
- Identify a number through 999 as odd or even.
- Express numbers up to 1000 using place value. Example: 137 is 1 hundred, 3 tens and 7 ones; use concrete materials.
- Compare and order numbers to 1000; use the symbols  $>$  and  $<$ .
- Decompose 100 into addition pairs. Example:  $99 + 1$ ,  $98 + 2$ .
- Use fact families to solve addition and subtraction problems.

- Find missing values in open sentences. Example:  $42 + \square = 57$ ; use relationship between addition and subtraction.
- Estimate and calculate the sum of two numbers with three digits that do not require regrouping.
- Calculate mentally sums and differences involving three-digit numbers and ones; three –digit numbers and tens; three-digit numbers and hundreds.

## Second Quarter

### Graphing

Students will:

- Read and interpret pictographs with scales, using scale factors of 2 and 3.
- Solve problems using information in pictographs; include scales such as “each  $\square$  represents 2 apples.”
- Make pictographs using a scale representation, using scales where symbols equal more than one.
- Collect and record data in an organized fashion using a variety of methods.

### Measurement, Time, Calendar

Students will:

- Use the concept of duration of time.
- Using both A.M. and P.M., tell and write time from the clock face in 5 minute intervals, and from digital clocks to the minute, include reading time; “9:15” as “nine-fifteen”.
- Interpret time both as minutes after the hour and minutes before the next hour.
- Show times by drawing hands on clock face.
- Interpret calendars

### Money

Students will:

- Read and write amounts of money using decimal notations. Example: \$1.15.
- Add and subtract money in mixed units. Example:  $\$2.50 + 60$  cents.
- Solve simple word problems involving length and money.

### Geometry and Measurement

Students will:

- Classify solid objects such as cube, pyramid, cylinder and sphere by common attributes such as shape, size, color, roundness or number of corners and explain which attributes are being used for classification.

### 3-D Shapes

Students will:

- Explore and predict the result of putting together and taking apart three-dimensional shapes.

## Third Quarter

### Geometry and Measurement - Capacity

Students will:

- Estimate and compare units of capacity such as ounce, cup, pint, quart, gallon, milliliter, and liter.

### Number Sense - Fractions

Students will:

- Recognize that fractions such as  $\frac{2}{2}$ ,  $\frac{3}{3}$  and  $\frac{4}{4}$  are equal to the whole (one).
- Recognize, name and represent commonly used unit fractions with denominators 12 or less. Model  $\frac{1}{2}$ ,  $\frac{1}{3}$  and  $\frac{1}{4}$  by folding strips.
- For unit fractions from  $\frac{1}{12}$  to  $\frac{1}{2}$ , understand the inverse relationship between the size of a unit fraction and the size of the denominator. Compare unit fractions from  $\frac{1}{12}$  to  $\frac{1}{2}$ .
- Recognize, name and write commonly used fractions such as  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{2}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$ .
- Place 0 and halves  $\frac{1}{2}$ ,  $1\frac{1}{2}$ ,  $2\frac{1}{2}$  on a number line; relate to a ruler.

### Numbers and Operations - Whole Number Multiplication

Students will:

- Count orally by 3's and 4's starting with 0.
- Count orally by 2's, 5's and 10's starting from any number.
- Understand multiplication as the result of counting the total number of objects in a set of equal groups.
- Represent multiplication using area and array models.
- Develop strategies for fluently multiplying numbers up to  $5 \times 5$ .

### Measurement – Area

Students will:

- Find the area of a rectangle with whole number side lengths by covering with unit squares and counting, or by using a grid of unit squares; write the area as a product.

## Division

Students will:

- Understand division as another way of expressing multiplication, using fact families within the 5 x 5 multiplication table; emphasize that division “undoes” multiplication.
- Given a simple situation involving groups of equal size or of sharing equally, represent with objects, words and symbols; solve.

## Fourth Quarter

### Numbers and Operations – Whole Numbers – Addition with Regrouping

Students will:

- Add two digit whole numbers with regrouping.
- Given a contextual situation that involves addition for numbers up through 99, model using objects or pictures; explain in words, record using numbers and symbols; solve.
- Add fluently two numbers up through 99 each using strategies including formal algorithms.

### Subtraction

Students will:

- Given a contextual situation that involves subtraction for numbers up through 99, model using objects or pictures; explain in words, record using numbers and symbols; solve.
- Subtract fluently two numbers up through 99 each, using strategies including formal algorithms without regrouping.

### Subtraction with Regrouping

Students will:

- Subtract two digit whole numbers with regrouping.

## Science Second Grade

### First Quarter

#### Life Science – Plants

Students will:

- Classify plants based on the physical characteristics.
- Identify the needs of plants with respect of growth and development.
- Identify the parts of plants and seeds.

- Compare edible and non-edible plants.
- Examine the growth of certain seeds.
- Distinguish between the varieties of apples.
- Identify the parts of an apple.

## Second Quarter

### Earth Science

#### Geosphere

Students will:

- Identify the features of the earth.
- Examine rocks/fossils and detail their characteristics.
- Understand how volcanoes function.
- Understand what glaciers are and how they move.
- Understand why earthquakes happen.
- Explain how the earth's surface changes over time.

#### Hydrosphere

Student will:

- Examine the water cycle
- Identify the states of matter with regard to water. Example: solid (ice), liquid and gas (vapor).

#### Atmosphere and Weather

Students will:

- Compare and contrast changes in the weather and seasons.
- Discuss safety in different types of weather conditions.

#### Solar System

Students will:

- Identify the phases of the moon
- List and identify the planets and other objects in our solar system.

## Third Quarter

### Physical Science

#### Properties of Objects

Students will:

- Explain what matter is.
- Identify the three states of matter
- Understand how matter can be mixed with other objects and therefore changed.

## Sound, Heat and Light

Students will:

- Discuss and explain that sound, heat and light move in waves.
- Understand how shadows form.

## Magnets, Force and Electricity

Students will:

- Explain that magnets have poles.
- Understand the forces of magnets.
- Understand that electricity is a force and how it works to service our daily needs.

## Fourth Quarter

## Life Science

### Animals

Students will:

- Identify different kinds of animals based on their physical characteristics.
- Understand that animals live in habitats.
- Understand how animals change.

### Fossils

Students will:

- Understand what fossils are.
- Understand how fossils are made.

### Dinosaurs

Students will:

- Identify different kinds of dinosaurs.
- Explain where dinosaurs came from.
- Explain what happened to dinosaurs.

## Social Studies

### Second Grade

### First Semester (Card Markings 1 & 2)

Throughout the year each unit will revisit common themes such as:

- Common Good
- Diversity
- Truth
- Liberty
- Pursuit of Happiness
- Patriotism

- Justice
- Liberty
- Individual Rights

### Community and School Rules

- Evaluate decisions
- Resolve Conflict
- Describe ways people influence each other.

### Safety

Students will:

- Execute fire safety procedures at important areas around the school.
- Execute lock down procedures at important areas around the school.
- Execute tornado drill procedures at important areas around the school.
- Execute evacuation drill procedures at important areas around the school.
- Identify services of our local government.

### Maps

Students will:

- Understand how to use a compass rose.
- Understand how to read a grid.
- Understand how to follow direction to get to certain destinations on a map.

### Historical Figures

Students will:

- Understand different accounts of important people and events from our past.
- Understand why pilgrims came to America and how democracy shaped their way of life.
- Be able to explain both orally and in written form the important events of our past.
- Explain how people change and influence their environment.

## Second Semester

### Cultural Diversity

Students will:

- Identify the importance of diversity in our nation with the emphasis on the African American influence.

### American Presidents

Students will:

- Identify the contributions of American Presidents and the significant events that occurred during their presidency (emphasis on George Washington and Abraham Lincoln).

## Economics

Students will:

- Distinguish the difference between and identify goods and services.
- Identify the goods and services in their community.
- Understand common economic vocabulary such as: producers, consumers, goods and services.

## Careers

Students will:

- Investigate and discuss different types of careers.

# Haas Elementary Parent Curriculum Expectations

## Third Grade Language Arts Reading, Writing, Speaking & Listening

### Reading

Students will:

- Understand how to utilize a rubric to evaluate readings.
- Understand author/illustrator's purpose.
- Read using many different strategies (context clues, reread, summarize, predict, inferences).
- Learn story elements: cause/effect; beginning, middle, end; main idea, sequence of events; character; setting; problem/solution; lesson or moral of a story.
- Read independently with fluency
- Read another's writing and critique using a rubric.
- Comprehend both oral and written material.
- Make a connection between real life stories and literature.
- Read a variety of literature including:
  - \*Poetry
  - \*Fable
  - \*Non-fiction
  - \*Narrative
  - \*Folk Tale
  - \*Realistic Fiction
  - \*Persuasive
  - \*Informational Text

### Writing

Students will:

- Use Rubrics to guide writing.
- Develop a positive writing attitude.
- Use Zaner-Blozer manuscript/cursive legibly.
- Use capitalization, punctuation (.? ! "" ' ), abbreviations, initials and indenting.
- Use correct grammar, focusing on nouns, verbs, adjectives, pronouns, proper nouns, contractions, singular and plural possessives and adverbs.
- Write complete sentences using capitalization, punctuation, abbreviations, initials and indenting.
- Use formal spelling in written work and assigned lists.
- Write for a variety of purposes in all content areas and audiences using the complete writing process.
- Complete required writing pieces for each of the following:
  - \*Poetry
  - \*Informative report
  - \*Personal story
  - \*Comparing/contrasting
  - \*Description
  - \*Write a research project
  - \*Persuasive letter

## Listening and Speaking

Students will:

- Speak to the level of the audience. For example, when speaking to younger students use vocabulary that they understand. When speaking to older students use more complex vocabulary that is appropriate.
- Respond to multiple texts by reflecting , making connections, taking a position and sharing understandings.
- Plan and deliver presentations that are organized and include facts, details and a change in the pace for effect. For example, using voice inflection to stimulate interest in an oral presentation.
- Make connections, take a position and share understandings between multiple texts.

## **Math Third Grade**

Throughout the school year the following problem solving strategies will be used regularly in third grade:

- Data analysis
- Time
- Measurement
- Graphing
- Money
- Constructive response questions
- Problem solving
  - Guess and Check
  - Identify what you know and what you need to know
  - Draw a Picture
  - Estimation and predicting a solution
  - Patterns
  - Identify relevant and irrelevant information
  - Identify operation

## First Quarter

### Measurement

#### **Units, length and weight**

Students will:

- Know and use common units of measurements in length, weight and time
- Measure in mixed units within the same measurement system for length, weight and time: feet and inches, hours and minutes, minutes and seconds, years and months.

- Understand relationships between sizes of standard units.
- Solve applied problems involving length.
- Add and subtract lengths, weights and times using mixed units, within the same measurement system.

### **Temperature**

Students will:

- Know benchmark temperatures such as freezing, boiling, body temperature, and compare temperatures to these.

### **Distance**

Students will:

- Determine distance on a map using the map scale in whole number values.

### **Time**

Students will:

- Tell time to nearest  $\frac{1}{2}$  hour and nearest  $\frac{1}{4}$  hour using digital and analog clocks.
- Find elapsed time to the nearest minute.

### **Money**

Students will:

- Know the coin values
- Add and subtract money in dollars and cents.
- Make change from \$1.00 and from \$5.00.
- Solve applied problems involving money and time.

### **Data**

#### **Bar Graphs**

Students will:

- Read and interpret bar graphs, in both horizontal and vertical forms.
- Read scales on the axes and identify the maximum, minimum and range of values in a bar graph.
- Solve problems using information in bar graphs, including comparison of bar graphs.

#### **Central Measures**

Students will:

- Find the range of a set of data.
- Find the mode of a set of data.
- Find the median of a set of data.

### **Number Sense**

#### **Place Value**

Students will:

- Read and write numbers to 10,000 in both numerals and words, and relate them to the quantities they represent.

- Recognize and use expanded notation for numbers using place value to 10,000's place.

### **Comparing and Ordering**

Students will:

- Compare and order numbers up to 10,000.
- Count orally by 6's, 7's, 8's and 9's starting with 0, making the connection between repeated addition and multiplication.

### **Odds and Evens**

Students will:

- Know that even numbers end in 0,2,4,6 or 8; name a whole number quantity that can be shared in two equal groups or grouped into pairs with no remainders; recognize even numbers as multiples of 2. Know that odd numbers end in 1,3,5,7 and 9 and work with patterns involving even and add numbers.

## Second Quarter

### Numbers and Operations

#### **Whole Numbers (addition, subtraction and estimation)**

Students will:

- Add and subtract fluently two numbers, up to two-digit numbers with regrouping and up to four-digit numbers without regrouping.
- Estimate the sum and difference of two numbers with three digits (sums up to 1000), and judge reasonableness of estimates.
- Use mental strategies to fluently add and subtract two-digit numbers.
- Round numbers to the hundreds place.

#### **Whole Numbers (multiplication and division)**

Students will:

- Use multiplication and division fact families to understand the inverse relationship of these two operations.
- Find products fluently up to  $10 \times 10$ ; find related quotients using multiplication and division including finding "How many groups?" and "How many in a group?" and write mathematical statement of those situations.
- Know that even numbers end in 0,2,4,6 and 8; and name a whole number quantity that can be shared in two equal groups or grouped into pairs with no remainders; recognize even numbers as multiples of 2. Know that odd numbers end in 1,3,5,7 and 9 and work with patterns involving even and odd numbers.
- Find solutions to open sentences, such as  $7 \times ? = 42$ , using the inverse relationship between multiplication and division.
- Mentally calculate simple products and quotients: up to a 3-digit number by a 1-digit number involving multiples of 10.
- Solve simple division problems involving remainders, viewing the remainder as the number left over, interpret based on problem context.

## Measurement

### Area

Students will:

- Given problems that use any one of the four operations with appropriate numbers, represent with objects, words and mathematical statements then solve.

## Third Quarter

## Geometry

### Lines and Shapes

Students will:

- Identify points, line segments, lines and distance.
- Identify perpendicular lines and parallel lines in familiar shapes and in the classroom.
- Identify, describe, compare and classify two-dimensional shapes.
- Identify, describe, build and classify familiar three-dimensional solids.
- Identify parallel faces of rectangular prisms, in familiar shapes and in the classroom.
- Represent front, top and side views of solids built with cubes.
- Identify lines of symmetry in two-dimensional shapes.
- Identify angles by type or size, without measuring.

## Measurement

### Length, Width, Area, Perimeter, Circumference and Volume

Students will:

- Know the definition of area and perimeter and calculate the perimeter of a square and rectangle given whole number side lengths.
- Use square units in calculating area by covering the object and counting the number of square units.
- Distinguish between units of length and area and choose a unit appropriate in the context.
- Visualize and describe the relative sizes of one square inch and one centimeter.
- Estimate the perimeter of a square and rectangle in inches and centimeters; estimate the area of a square and rectangle in square inches and square centimeters.

## Geometry

Students will:

- Solve contextual problems about perimeters of rectangles and area of rectangular regions.
- Find the circumference, radius and diameter of circles.
- Find the volume of an object that is a cube or rectangular prism using cubic manipulatives.

## Transformations

Students will:

- Identify a turn, flip and side of an object when the objects are on a grid.

## Fourth Quarter

## Number and Operations

### Fractions

Students will:

- Understand that fractions may represent a portion of a whole that has been portioned into parts of equal area or length. Use the terms numerator and denominator.
- Recognize, name and use equivalent fractions with denominators 2, 4 and 8 using strips as area models.
- Place fractions with denominators of 2, 4 and 8 on the number line; relate the number line to a ruler; compare and order up to three fractions with denominators 2, 4 and 8.
- Understand that any fraction can be written as a sum of unit fractions.

### Decimals

Students will:

- Recognize that the addition and subtraction of fractions with equal denominators can be modeled by joining or taking away segments on the number line.
- Understand the meaning of 0.50 and 0.25 related to money.

### Data and Probability

Students will:

- Find the mean of a set of data.
- Use spinners and dice to identify the likelihood of a result.

## Science Third Grade First Quarter

### Desert/Forest Habitat

Students will:

- Compare and contrast plants according to physical characteristics.
- Understand the life cycle of plants.
- Design systems that encourage the growth of plants.
- Classify objects as solid, liquid or gas.

## Solar System

Students will:

- Compare and contrast characteristics of the sun, moon and earth.
- Describe and observe how objects in the solar system move in a pattern.
- Recognize movement of earth around the sun and the moon around the earth.
- Understand that planets and moons rotate on an axis in an orbit around another object.

## Second Quarter

### Gardening and Food

Students will:

- Identify the characteristics of plants.
- Understand the functions of the parts of plants.
- Compare and contrast how food is transferred into energy.
- Explain why seeds are carried from one place to another and the importance of seeds.
- Explain how the characteristics of plants are passed from one generation (parent) to the next generation (young).
- Compare and contrast producers and consumers in different venues.
- Identify the basic needs of plants as compared to humans.

## Third Quarter

### Life Science

Students will:

- Describe the basic requirements for all living things to maintain their existence.
- Describe how a living thing gets water, food, space, minerals and sometimes air and light from a habitat.
- Design systems that encourage the growing of particular plants or animals.
- Design a controlled ecosystem that provides or supplies the needs of life (food, habitat, water, shelter, air, light, minerals).

### Physical Science

#### Sound

Students will:

- Describe sounds in terms of their properties.
- Describe sounds using pitch and loudness.
- Analyze a variety of sounds with regard to pitch (high or low) and loudness (loud or soft).
- Explain how sounds are made

- Explain that sound is caused by vibrating objects or substances.

### **Simple Machines**

Students will:

- Identify and use simple machines and describe how they change effort.
- Identify and use inclined plane, screws, pulleys, wheels, axels and wedges.
- Demonstrate a simple machine and explain how the amount of effort has changed the work.
- Operate simple machines.
- Explain how they work.

### **Earth Science**

#### **Earth's Surface**

Students will:

- Describe the Earth's surface.
- Explain how the Earth's surface features change over time.
- Analyze effects of technology on the Earth's surface and resources.
- Describe some of the uses of materials taken from the Earth for transportation, building materials, energy and water.

## **Fourth Quarter**

### **Earth Science**

#### **Human Effects on the Environment**

Students will:

- Describe how human activities affect the lives of plants
- Identify the effects of garbage, habitat destruction, land management, renewable and non renewable resources on the environment.

#### **Conservation and Pollution**

Students will:

- Demonstrate ways to conserve natural resources and reduce pollution through reduction, reuse, and recycling of manufactured materials.
- Devise and carry our plans for improving the recycling and reusing of materials at school and home.

**Social Studies**  
**Third Grade**  
**First Semester (Card Markings 1 & 2)**

Throughout the year each unit will revisit common themes such as:

- Common Good
- Diversity
- Truth
- Liberty
- Pursuit of Happiness
- Patriotism
- Justice
- Liberty
- Individual Rights

**Civics**

Students will:

- Determine, interpret and enforce school rules.
- Participate in projects designed to help other in their local community.

**Geographic Perspective**

Students will:

- Compare similarities among the roles of women, men and families in different communities.
- Explain the reasons for the diverse characteristics and locations of different communities.
- Describe the major places, cultures and communities of the nation and compare characteristics.
- Draw or sketch maps of the community, region and nation.
- Describe how people use the environment to meet needs and wants.

**Genesee and Other Communities**

Students will:

- Measure chronological time by decades and centuries.
- Summarize the history of the state of Michigan and other parts of the U.S.
- Identify problems from the past that may have divided Genesee as a community and analyze the interests and values of those involved.
- Describe Genesee and compare it with communities in other regions and countries.
- Describe how people can improve their environment.

## Second Semester

### Economics

Students will:

- Describe different kinds of resources and explain the consequences of their use.
- Describe major kinds of economic activity.
- Explain why people must face scarcity when making economic decisions.
- Identify the opportunity costs in personal decision making situations.
- Use a decision making model to explain a personal choice.
- Assess the effectiveness of the government at providing public goods or resolving an economic dispute.
- Explain how prices are determined in a market economy.
- Describe how a citizen acts as a producer and a consumer.

### Government

Students will:

- Distinguish among local, state and national government and discuss the rolls of government.
- Describe how citizens participate in election campaigns.
- Engage each other in a classroom discussion to resolve issues.
- Report how their behavior has been guided by concern for the law.