

Hazlet Township Public Schools



COURSE OF STUDY FOR

Mathematics - Kindergarten

August 4, 2026

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Pacing Guide			
Week	Trimester 1	Week	Trimester 1
1	Geometry	8	Counting and Cardinality
2	Geometry	9	Counting and Cardinality
3	Geometry	10	Counting and Cardinality
4	Counting and Cardinality	11	Counting and Cardinality
5	Counting and Cardinality	12	Counting and Cardinality
6	Counting and Cardinality	13	Operations and Algebraic Thinking
7	Counting and Cardinality		
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15	Operations and Algebraic Thinking	22	Measurement
16	Operations and Algebraic Thinking	23	Measurement
17	Operations and Algebraic Thinking	24	Measurement
18	Operations and Algebraic Thinking	25	Counting and Cardinality

19	Operations and Algebraic Thinking	26	Counting and Cardinality
20	Operations and Algebraic Thinking		
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New Jersey Administrative Code Summary and Statutes

Curriculum Development: Integration of 21st Century Themes and Skills and Interdisciplinary Connections

District boards of education shall be responsible for the review and continuous improvement of curriculum and instruction based upon changes in knowledge, technology, assessment results, and modifications to the NJSLS, according to N.J.A.C. 6A:8-2.

1. District boards of education shall include interdisciplinary connections throughout the K–12 curriculum.
2. District boards of education shall integrate into the curriculum 21st century themes and skills ([N.J.A.C. 6A:8-3.1\(c\)](#)).

Twenty-first century themes and skills integrated into all content standards areas (N.J.A.C. 6A:8-1.1(a)3).

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility and adaptability, initiative and self direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility.

Amistad Law: [N.J.S.A. 18A 52:16A-88](#)

Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

<https://www.nj.gov/education/standards/socst/docs/DiversityInclusionLaw.PDF>

A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district’s

implementation of the New Jersey Student Learning Standards (N.J.S.A. 18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Core Instructional & Supplemental Materials including various levels of Texts

- Scott Foresman. (2021). *enVision mathematics: Common core, grade K* (Student ed.). Savvas Learning Company.
- Any district approved curricula or curriculum tools
- Read aloud tradebooks for topical instruction such as: *The Shape of Things, City Shapes, Mouse Shapes, Feast for 10, Ten Black Dots, Chicka Chicka 1,2,3, Quack and Count, Inch by Inch*, any MathStart series books, etc.
- 100s chart for display on walls
- Number line to display on classroom walls
- Individual number lines and 100s charts
- Number formation mnemonics
- Number formation Google slides for visual instruction
- Hands-on manipulatives such as: counters, linking cubes, ten frames, counters of various size and shape, number lines to 5, 10 and 20, 6 sided dice, spinners, dominos, playing cards, pattern blocks, 3D geometric solids, geoboards, play doh, pop sticks, balance scales, play money, other as appropriate
- Topical center activities

Time Frame	~13 weeks throughout the year (see suggested scope & sequence) *The suggested timeline is subject to change as teachers and program supervisors find necessary
Topic	
Counting and Cardinality	
Alignment to Standards	
2023 NJSL-Mathematics: Kindergarten	
Counting and Cardinality (K.CC)	
A. Know number names and the count sequence	
1. Count to 100 by ones and by tens. 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1). 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	
B. Count to tell the number of objects	

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
 - a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
 - c. Understand that each successive number name refers to a quantity that is one larger.

5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

C. Compare numbers

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Clarification: Include groups with up to ten objects.)
7. Compare two numbers between 1 and 10 presented as written numerals.

Data Literacy (K.DL)

A. Classify objects and count the number of objects in each category

1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Learning Activities & Key Concepts and Skills

Essential Questions:

- How do we use numbers?
- Where can we find numbers?
- What do numbers mean?
- How can numbers to 100 be counted using a hundreds chart?
- How can numbers be counted, read, written and pictured to tell how many?
- How can numbers be compared and ordered?

Guiding Questions:

- What is this number?

- What number comes next?
- How many objects are there?
- Which group of objects has more/less?
- Are these groups/numbers the same/equal?

Essential Knowledge, Skills & Enduring Understandings:**A: STUDENTS WILL KNOW:**

- That numbers represent a quantity and a position
- Counting is a way for finding how many
- Numbers have a defined order and pattern

B: STUDENTS WILL UNDERSTAND THAT:

- For every number there is a quantity and word that matches it
- 'Greater than' means more
- 'Less than' means smaller
- 'Equal to' means the same as
- Numbers have a sequence
- 'Zero' means nothing
- Counting patterns can be seen on a hundreds chart

C: STUDENTS WILL BE ABLE TO:

- Count to 100 by 1s and 10s
- Count on from a given starting point other than 1
- Write numerals to 20
- Demonstrate one to one correspondence by counting one object at a time and assigning one number name to that object in sequence up to 20 objects arranged or 10 objects scattered
- Compare quantities of objects (up to 10) in two groups using the terms greater than, less than or equal to
- Compare two written numerals up to 10 using the terms greater than, less than or equal to
- Demonstrate knowledge on benchmark assessments (either written or electronic)
- Participate in whole group and small group lessons
- Demonstrate knowledge through individual checks for understanding

Suggested Learning Activities:

- Use of student workbooks from Savvas
- Focused numerical activities throughout the year. (i.e. 0-5, 6-10, 11-20, beyond)
- Sorting and counting groups of objects (counting chips, shaped counters, sticks, etc.)
- Number writing practice using varied modalities (sand on a table, shaving cream, dry erase boards, magnetic boards, stamp and write)
- Number matching games – number to quantity
- Use of 10 frames for number/quantity recognition
- Arrays for teaching number quantity formations

- Dice games for number recognition and counting
- Math games online through Savvas Realize (whole group and individual)
- Math games online on [More.Starfall.com](https://www.starfall.com) (whole group and individual)
- Center games for hands-on number to quantity matching
- Songs on YouTube such as: Five Speckled Frogs, Monkeys Jumping on the Bed, Jack Hartmann Counting to 100, etc.
- Use of hundreds chart for number counting, recognition, games
- Hundreds chart displayed in classroom
- Use of a classroom calendar to reinforce counting and cardinality
- Number line to 100 displayed in classroom
- Use of books such as Math Start series for introduction of specific concepts

Assessments

Formative:

- Station Rotation Activities
- Teacher Observation
- Class Discussion of Approaches/Mathematical Methods
- Student Reflection
- Group work

Summative:

- Topic Tests & Quizzes
- Unit Projects
- Performance Assessments

Benchmark:

- Trimester Benchmark Assessment

Alternative:

- Exploration/Discovery Activities – unique challenges to study concepts as reinforcement and/or study concepts not yet formally covered
- Collaborative Projects
- Digital interactive games

Interdisciplinary Connections

Physical Education

Counting hops: Hop a set number of times while tracking the total aloud.

Group sorting: Sort students into groups and count everyone in each group.

NJSLS.2.2.2.MSC.1 - Perform a combination of sequences of locomotor movements and rhythmic activities (e.g., walking, balancing, hopping, skipping, running).

NJSLS.2.2.2.PF.4 - Demonstrate strategies and skills that enable team and group members to achieve goals.

Science

Count Seeds: count out seeds from an apple or pumpkin while studying plants

K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.

Career Readiness, Life Literacies, and Key Skills

9.4 Life Literacies and Key Skills by the End of Grade 2 Creativity and Innovation

9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Computer Science & Design Thinking

Learning about sequencing of numbers can provide the building blocks of algorithms and programming.

8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information.

Time Frame	~11 weeks broken up based on topics and with additional time as necessary (see suggested scope & sequence) *The suggested timeline is subject to change as teachers and program supervisors find necessary.
Topic	
Operations and Algebraic Thinking	
Alignment to Standards	

2023 NJSLs-Mathematics: Kindergarten

Counting and Cardinality (K.CC)

A. Know number names and the count sequence

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

B. Count to tell the number of objects

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
 - d. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
 - e. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
 - f. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

C. Compare numbers

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Clarification: Include groups with up to ten objects.)

Operations and Algebraic Thinking (K.OA)

A. Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from

1. Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions,

or equations.

2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5=2+3$ and $5=4+1$).
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Demonstrate accuracy and efficiency for addition and subtraction within 5.

Data Literacy (K.DL)

A. Classify objects and count the number of objects in each category

1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Learning Activities & Key Concepts and Skills

Essential Questions:

- What combinations of numbers make up other numbers?
- What types of situations involve addition?
- How can representing taking apart and taking from in different ways help you learn about subtraction?
- How can decomposing numbers in more than one way help learn about addition and subtraction?
- What is subtraction?
- What questions can be answered using addition/subtraction?
- How can sums/differences be represented using numbers/symbols/drawings?

Guiding Questions:

- What is a sum?
- What is a difference?

Essential Knowledge, Skills & Enduring Understandings:

A: STUDENTS WILL KNOW:

- That addition is bringing together
- That subtraction is taking apart
- That we use addition and subtraction to solve problems
- That numbers can be decomposed in more than one way

B: STUDENTS WILL UNDERSTAND THAT:

- When objects are put together they are added
- When objects are taken away, they are subtracted
- We can represent addition and subtraction by using drawings, or objects

C: STUDENTS WILL BE ABLE TO:

- Count forward and backward from a given number under 10 to find a sum or a difference
- Decompose numbers less than 10 in more than one way
- Record decompositions in number sentences such as $5=2+3$
- Decompose 10 as knowing what number when paired with any number 1-9 is equal to 10
- Fluently add and subtract within 5
- Demonstrate knowledge on benchmark assessments (either written or electronic)
- Participate in whole group and small group lessons
- Demonstrate knowledge through individual checks for understanding

Suggested Learning Activities:

- Use of student workbooks from Savvas
- Math games online through Savvas products
- Math games online on More.Starfall.com
- Interactive lessons on SavvasRealize.com
- Interactive stories on SavvasRealize.com
- Read-aloud trade books such as: Animals on Board, One is a Snail Ten is a Crab, Little Quack, Quack and Count, Domino Addition, Five Silly Fishermen, etc.
- Use of learning mats to visual addition/subtraction stories with manipulatives
- Use of iPad applications for addition/subtraction as available and downloaded
- Center games for addition/subtraction concepts
- Domino addition
- Flash cards for fluency practice

Formative:

- Station Rotation Activities
- Teacher Observation
- Class Discussion of Approaches/Mathematical Methods
- Student Reflection
- Group work

Summative:

- Topic Tests & Quizzes
- Unit Projects
- Performance Assessments

Benchmark:

- Trimester Benchmark Assessment

Alternative:

- Exploration/Discovery Activities – unique challenges to study concepts as reinforcement and/or study concepts not yet formally covered
- Collaborative Projects
- Digital interactive games

Interdisciplinary Connections**Language Arts**

RL.CR.K.1 With prompting and support, ask and answer questions about key details in a literary text (e.g., who, what, where, when, why, how).

Read a book such as *Ten Little Monkeys Jumping in the Bed* for subtraction. Elicit quantities from students after each page.

Career Readiness, Life Literacies, and Key Skills**9.4 Life Literacies and Key Skills by the End of Grade 2**

Creativity and Innovation 9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). • 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Information and Media Literacy

9.4.2.IML.2: Represent data in a visual format to tell a story about the data.

Computer Science & Design Thinking

8.1.2.DA.3: Identify and describe patterns in data visualizations.

8.1.2.DA.4: Make predictions based on data using charts or graphs.

Look for and describe patterns in numbers to compare numbers in order to choose operations (addition or subtraction)

Time Frame	~ 4 weeks
Topic	
Number and Operation in Base Ten	
Alignment to Standards	
2023 NJSLS-Mathematics: Kindergarten Counting and Cardinality (K.CC) A. Know number names and the count sequence 1. Count to 100 by ones and by tens.	

2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).

A. Work with numbers 11–19 to gain foundations for place value

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18=10+8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Data Literacy (K.DL)

A. Classify objects and count the number of objects in each category

1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Learning Activities & Key Concepts and Skills

Essential Questions:

- How can composing and decomposing numbers into tens and ones help understand place value?

Guiding Questions:

- What is place value?
- What number is in the tens place? (1)
- What number is in the ones place?
- How can we show (a number) on a double ten frame?
- How can we write this representation as an addition sentence?

Essential Knowledge, Skills & Enduring Understandings:

A: STUDENTS WILL KNOW:

- That teen numbers are made up of combinations of numbers
- That each number in a two digit number have place value
- Numbers can be represented with pictures

B: STUDENTS WILL UNDERSTAND THAT:

- The 1 in the tens place of a teen number is worth ten
- By decomposing numbers we can find their value

C: STUDENTS WILL BE ABLE TO:

- Represent teen numbers using ten frames
- Represent teen numbers with addition sentences such as $18=10+8$
- Represent teen numbers using objects or drawings
- Demonstrate knowledge on benchmark assessments (either written or electronic)
- Participate in whole group and small group lessons
- Demonstrate knowledge through individual checks for understanding

Suggested Learning Activities:

- Use of student workbooks from Savvas
- Math games online through Savvas products
- Math games online on More.Starfall.com
- Interactive lessons on SavvasRealize.com
- Interactive stories on SavvasRealize.com
- Read-aloud of trade books such as: Meet the Teens
- Use of iPad applications for teen number identification as available and downloaded
- Watch videos for sing-alongs on YouTube of: Numbers in the Teens (They Start with a 1), Numbers in the Teens (Have a Group of 10)
- Watch BrainPopJr video and related activities for: Place value
- Use double ten frame mats to represent teen numbers using counters or other small manipulatives
- Center games focused on place value for teen numbers

Assessments**Formative:**

- Station Rotation Activities
- Teacher Observation
- Class Discussion of Approaches/Mathematical Methods

- Student Reflection
- Group work

Summative:

- Topic Tests & Quizzes
- Unit Projects
- Performance Assessments

Benchmark:

- Trimester Benchmark Assessment

Alternative:

- Exploration/Discovery Activities – unique challenges to study concepts as reinforcement and/or study concepts not yet formally covered
- Collaborative Projects
- Digital interactive games

Interdisciplinary Connections

Physical Education

Counting hops: Hop a set number of times while tracking the total aloud.

Group sorting: Sort students into groups and count everyone in each group.

NJSLS.2.2.2.MSC.1 - Perform a combination of sequences of locomotor movements and rhythmic activities (e.g., walking, balancing, hopping, skipping, running).

NJSLS.2.2.2.PF.4 - Demonstrate strategies and skills that enable team and group members to achieve goals.

Career Readiness, Life Literacies, and Key Skills

9.4 Life Literacies and Key Skills by the End of Grade 2 Creativity and Innovation

9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). • 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Computer Science & Design Thinking

Learning about sequencing of numbers, categorizing and sorting data, and determining attributes provides the building blocks of algorithms and programming.

8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information.

Time Frame	~ 4 weeks
Topic	
Measurement	
Alignment to Standards	
2023 NJSLS-Mathematics: Kindergarten Counting and Cardinality (K.CC) A. Know number names and the count sequence - Count to 100 by ones and by tens. - Count forward beginning from a given number within the known sequence (instead of having to begin at 1). - Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	

Measurement (K.M)**A. Describe and compare measurable attributes**

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

B. Work with money

3. Understand that certain objects are coins and dollar bills, and that coins and dollar bills represent money. Identify the values of all U.S. coins and the one-dollar bill.

Data Literacy (K.DL)**A. Classify objects and count the number of objects in each category**

1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Learning Activities & Key Concepts and Skills**Essential Questions:**

- How can objects be compared by length, height, capacity and weight?
- What are American coins?
- What is an American one dollar bill?
- What value do these coins have?

Guiding Questions:

- How can this object be measured?
- Is it taller/shorter, does it hold more/less, is it heavier/lighter?
- How do we know it's heavier/lighter when using a pan balance?
- What is the difference between these coins?
- How do they look different?

Essential Knowledge, Skills & Enduring Understandings:**A: STUDENTS WILL KNOW:**

- That objects have different measurable attributes
- That objects can be compared by their measurable attributes

B: STUDENTS WILL UNDERSTAND THAT:

- Length is described as longer or shorter
- Height is described as taller or shorter
- Capacity can be measured by which container holds more or less
- That weight can be measured by heavier or lighter

C: STUDENTS WILL BE ABLE TO:

- Compare objects by length and height
- Compare objects by capacity
- Compare objects by weight
- Use attributes to describe different objects
- Use words to describe how an object can be measured
- Solve math problems about objects with measurable attributes

Suggested Learning Activities:

- Use balance scales to compare weight of objects.
- Measure length and height of classroom objects using non-standard units (e.g., linking cubes, paperclips).
- Compare the capacity of different containers using sand or water to determine which holds more or less.
- Use comparative vocabulary (longer/shorter, heavier/lighter, holds more/less) to describe attributes of objects.
- Explore money (coins and dollar bills) identification and value.
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Assessments**Formative:**

- Station Rotation Activities

- Teacher Observation
- Class Discussion of Approaches/Mathematical Methods
- Student Reflection
- Group work

Summative:

- Topic Tests & Quizzes
- Unit Projects
- Performance Assessments

Benchmark:

- Trimester Benchmark Assessment

Alternative:

- Exploration/Discovery Activities – unique challenges to study concepts as reinforcement and/or study concepts not yet formally covered
- Collaborative Projects
- Digital interactive games

Interdisciplinary Connections

Sorting, classifying objects and then writing a sentence connects multiple disciplines. To add in science classify, count and sort topical objects from Science units (seeds, weather data, etc.)

Language Arts

W.IW.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts to convey ideas.

Sort a group of objects by attribute, draw what has been sorted and dictate/write a sentence explaining what has been sorted.

Career Readiness, Life Literacies, and Key Skills

9.1 Personal Financial Literacy by the End of Grade 2

9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.4 Life Literacies and Key Skills by the End of Grade 2 Creativity and Innovation

9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). • 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Computer Science & Design Thinking

Learning about sequencing of numbers, categorizing and sorting data, and determining attributes provides the building blocks of algorithms and programming.

8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information.

Time Frame	~ 5 weeks
Topic	
Geometry	
Alignment to Standards	
2023 NJSLS-Mathematics: Kindergarten	
Geometry	
A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)	

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.
2. Correctly name shapes regardless of their orientations or overall size.
3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).

B. Analyze, compare, create, and compose shapes

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
6. opportunity to integrate climate change education.
7. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”.

Data Literacy (K.DL)

A. Classify objects and count the number of objects in each category

1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)

Learning Activities & Key Concepts and Skills

Essential Questions:

- Where can we find shapes in our world?
- How can we differentiate shapes?
- How can 2D and 3D shapes be identified and described?
- How can solid figures be named, described, compared, and composed?

Guiding Questions:

- How many sides do these shapes have?

- How many vertices do these shapes have?

Essential Knowledge, Skills & Enduring Understandings:**A: STUDENTS WILL KNOW:**

- That geometric shapes have names
- That shapes have describable attributes
- That shapes can be composed of other shapes

B: STUDENTS WILL UNDERSTAND THAT:

- Shapes are everywhere
- Objects can be described by a shape
- Shapes that are flat are 2-dimensional
- Shapes that are solid are 3-dimensional

C: STUDENTS WILL BE ABLE TO:

- Verbally identify a circle, square, rectangle, triangle, and hexagon by name
- Verbally identify a sphere, cube, cone and cylinder by name
- Differentiate between shapes as 2D or 3D
- Describe and compare shapes by discussing their attributes (number of sides/vertices), or having sides that are equal in length
- Students will manipulate shapes to form other shapes
- Demonstrate knowledge on benchmark assessments (either written or electronic)
- Participate in whole group and small group lessons
- Demonstrate knowledge through individual checks for understanding

Suggested Learning Activities:

- Website games on More.Starfall.com
- Match shapes on Smart Board
- Use of books, songs, poetry to learn shape attributes
- Sorting of 2D attribute blocks by various attribute (number of sides, vertices, shape)
- Build 3D shapes by using various tools (marshmallows and toothpicks, clay and sticks, etc.)
- Build 2D shapes with other shapes using manipulative pattern blocks and attribute blocks
- Read aloud trade books such as: *The Greedy Triangle*, *Dinosaur Shapes*, *The Shape of Things*, etc.
- Student workbooks from Savvas
- Interactive lessons on Smart Board from SavvasRealize.com
- Interactive stories on Smart Board from SavvasRealize.com

- Center games for shape identification, matching, sorting

Assessments

Formative:

- Station Rotation Activities
- Teacher Observation
- Class Discussion of Approaches/Mathematical Methods
- Student Reflection
- Group work

Summative:

- Topic Tests & Quizzes
- Unit Projects
- Performance Assessments

Benchmark:

- Trimester Benchmark Assessment

Alternative:

- Exploration/Discovery Activities – unique challenges to study concepts as reinforcement and/or study concepts not yet formally covered
- Collaborative Projects
- Digital interactive games

Interdisciplinary Connections

Language Arts

W.IW.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts to convey ideas.

Sort a group of objects by attribute, draw what has been sorted and dictate/write a sentence explaining what has been sorted.

Career Readiness, Life Literacies, and Key Skills**9.4 Life Literacies and Key Skills by the End of Grade 2 Creativity and Innovation**

9.4.2.CI.1: Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2). • 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Computer Science & Design Thinking

Learning about sequencing of numbers, categorizing and sorting data, and determining attributes provides the building blocks of algorithms and programming.

8.1.2.AP.2: Model the way programs store and manipulate data by using numbers or other symbols to represent information. Build 2d and 3d shapes using various materials (playdoh and straws, toothpicks and marshmallows)

8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.

Modifications (ELL, Special Education, At-Risk Students, Gifted & Talented, & 504 Plans)***ELL:***

- Work toward longer passages as skills in English increase
- Use visuals
- Introduce key vocabulary before lesson
- Teacher models reading aloud daily
- Provide peer tutoring
- Use of Bilingual Dictionary
- Guided notes and/or scaffold outline for written assignments
- Provide students with English Learner leveled readers.

Supports for Students With IEPs:

- Allow extra time to complete assignments or tests
- Guided notes and/or scaffold outline for written assignments
- Work in a small group
- Allow answers to be given orally or dictated
- Use large print books, Braille, or books on CD (digital text)
- Follow all IEP modifications

At-Risk Students:

- Guided notes and/or scaffold outline for written assignments
- Introduce key vocabulary before lesson
- Work in a small group
- Lesson taught again using a differentiated approach
- Allow answers to be given orally or dictated
- Use visuals / Anchor Charts
- Leveled texts according to ability

Gifted and Talented:

- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Organize and offer flexible small group learning activities
- Provide whole group enrichment explorations
- Teach cognitive and methodological skills
- Use center, stations, or contracts
- Organize integrated problem-solving simulations
- Propose interest-based extension activities
- Expose students to beyond level texts.

Supports for Students With 504 Plans:

- Follow all the 504 plan modifications
- Text to speech/audio recorded selections
- Amplification system as needed
- Leveled texts according to ability
- Fine motor skill stations embedded in rotation as needed
- Modified or constrained spelling word lists
- Provide anchor charts with high frequency words and phonemic patterns