HILLSBOROUGH TOWNSHIP SCHOOL DISTRICT

MATHEMATICS CURRICULUM

Kindergarten

July, 2020

Course Overview
Kindergarten

The kindergarten mathematics program emphasizes the following content clusters as they align with the kindergarten New Jersey Student Learning Standards: counting and cardinality; operations and algebraic thinking; number and operations in base ten; measurement and data; and geometry. The content is presented using a concrete, problem solving approach designed to develop critical thinking skills within real world situations. The New Jersey Student Learning Standards for Mathematical Practice: make sense of problems and persevere in solving them; reason abstractly and quantitatively; construct viable arguments and critique the reasoning of others; model with mathematics; use appropriate tools strategically; attend to precision; look for and make use of structure; and look for and express regularity in repeated reasoning are embedded in the daily teaching and learning. Practice of basic skills is ongoing through a variety of routines and activities. Topics are revisited regularly and practice is distributed over time to facilitate full concept development. Program implementation and assessment offer enrichment and reinforcement based on individual student needs. The kindergarten mathematics program helps prepare students to take any New Jersey Student Learning Assessment or the new generation of state assessment. Successful completion of the kindergarten mathematics program prepares students for either the transitional primary or first grade mathematics program.

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Establishing Routines	**Timeframe/Pacing:** 5 days

Essential Questions

- How can we create mathematical representations using numbers, words, symbols, pictures, gestures, tables, graphs, and concrete objects?
- How do we make sense of the representations we use?
- How is math relevant to me?

Enduring Understandings

- Numbers can represent quantity, position, location, and relationships.
- Counting finds out the answer to how many in objects/sets.
- Patterns can be found in many forms and can grow and repeat.
- Graphs convey data in a concise way..
- Children learn and apply basic counting principles.
- A quantity can be represented numerically in various ways

Standards Taught and Assessed

- ■ K.CC.A Know number names and the count sequence.
- ■ K.CC.B Count to tell the number of objects.
- ■ K.CC.C Compare numbers.
- ■ K.NBT.A Work with numbers 11–19 to gain foundations for place value.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- □ K.MD.B. Classify objects and count the number objects in each category.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Science

- K-ESS2-1. Use and share observations of local weather conditions to describe patterns over time.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family

Pre-Assessment

- N/A

Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)

- Specific other accommodations/modifications per a student's IEP or 504 plan.

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

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Student Learning Objectives: We are learning to/that...	Student Strategies (Mathematical Practices)	Formative/Summative Assessment	Activities and Resources	Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)
K.CC.A Know number names and the count sequence.	SMP2 Reason abstractly and quantitatively. SMP5 Use appropriate tools strategically. SMP7 Look for and make use of structure.	Class participation during daily routines	Number of the day Calendar assembly	Higher order thinking questions Teacher/Student Modeling Turn and Talk
K.CC.B Count to tell the number of objects.	SMP2 Reason abstractly and quantitatively. SMP4 Model with mathematics. SMP6 Attend to precision.	Class participation during daily routines	Attendance	Higher order thinking questions Teacher/Student Modeling Turn and Talk
K.CC.C Compare numbers.	SMP2 Reason abstractly and quantitatively. SMP4 Model with mathematics. SMP6 Attend to precision.	Class participation during daily routines	Temperature	Higher order thinking questions Teacher/Student Modeling Turn and Talk
K.NBT.A Work with numbers 11–19 to gain foundations for place value.	SMP2 Reason abstractly and quantitatively. SMP4 Model with	Class participation during daily routines	Place Value Bundles	Higher order thinking questions Teacher/Student

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

	mathematics.			Modeling Turn and Talk
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP2 Reason abstractly and quantitatively. SMP4 Model with mathematics. SMP6 Attend to precision.	Class participation during daily routines	Attendance chart Clip Collection and/or Bundles Calendar Activities	Use number line Higher order thinking questions Teacher/Student Modeling Turn and Talk
K.MD.B. Classify objects and count the number objects in each category.	SMP3 Construct viable arguments and critique reasoning of others. SMP4 Model with mathematics. SMP5 Use appropriate tools strategically.	Class participation during daily routines	Weather graph	Higher order thinking questions Teacher/Student Modeling Turn and Talk
Benchmark Assessment • N/A		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 1 - Number Readiness	**Time Frame/Pacing: 15 Days**

Essential Questions

- What are the names of the numbers?
- What is the sequence of numbers?
- What are strategies for counting objects?
- How do numbers represent objects?
- What are the names of shapes?
- What are the defining attributes of shapes?

Enduring Understandings

- Numbers can represent quantity, position, location, and relationships.
- Counting finds out the answer to how many in objects/sets.
- Patterns can be found in many forms and can grow and repeat.
- Graphs convey data in a concise way..
- Children learn and apply basic counting principles.
- Objects have distinct attributes that can be measured, described, and compared.

Standards Taught and Assessed

- ■ K.CC.A Know number names and the count sequence.
- ■ K.CC.B Count to tell the number of objects.
- □ K.G.A Identify and describe shapes.
- □ K.MD.B Classify objects and count the number of objects in each category.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively

Highlighted Career Ready Practices and 21st Century Themes and Skill
- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies
- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Choral count to 30.	• number line • specific other accommodations/modifications per a student's IEP or 504 plan

Daily Routines: Establish Daily Routines
- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning	Student Strategies	Formative/Summative	Activities and Resources	Modifications/Accommo

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

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Objectives: We are learning to/that...	**(Mathematical Practices)**	**Assessment**		**dations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.CC.A Know number names and the count sequence.	SMP6 Attend to precision.	Students count aloud to 30.	Counting Games: Play counting game: choose a number, children stand in a circle and count consecutively, child sits when they say the chosen number. (ex. Sit when number 7 is said) Teacher counts, students catch mistakes Daily Routines	Provide a number line or grid. Students count aloud to a higher or lower number.
K.CC.B Count to tell the number of objects.	SMP6 Attend to precision.	Students count a group of 7 objects.	Represent numbers on a 5-frame. Provide number cards and a group of objects. Students match the number of objects to the card. (ex: Put 4 counters on the 4 card.) Identify numbers: (Teacher shows number of objects on card, students chorally say number)	Provide a smaller or larger number of objects to count.
K.G.A Identify and	SMP2 Reason abstractly	Teacher holds up a pattern	Children will create	Students can make longer

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

describe shapes.	and quantitatively.	block; students identify and hold up a matching block from their pile. Have students create a pattern using attribute blocks.	repeating and growing patterns with shapes. (Provide pattern blocks.)	or shorter patterns.
K.MD.B Classify objects and count the number of objects in each category.	SMP2 Reason abstractly and quantitatively.	Discuss questions about one of the graphs that were made as a class. (ex: Which month had the most birthdays? etc.)	Birthday Graph Age Graph Weather Graph (Daily Routines)	
Benchmark Assessment • Not applicable.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Not Applicable		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 2 -Naming and Describing Shapes; Counting	**Time Frame/Pacing:** 20 Days

Essential Questions

- What happens when we use operations on numbers?
- What are strategies for counting objects?
- How do numbers represent objects?
- What are the defining attributes of triangles, rectangles, squares, and circles?

Enduring Understandings

- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.
- A quantity can be represented numerically in various ways.
- Grouping by attributes (classification) can be used to answer mathematical questions.
- Objects have distinct attributes that can be measured, described, and compared.

Standards Taught and Assessed

- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- ■ K.CC.B Count to tell the number of objects.
- □ K.G.A Identify and describe shapes.
- □ K.G.B. Analyze, create, compare, and compose shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Name and draw the basic shapes (circle, square, triangle, and rectangle).	• Specific other accommodations/modifications per a student's IEP or 504 plan

Daily Routines:

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning Objectives: We are learning to/that...	**Student Strategies (Mathematical Practices)**	**Formative/Summative Assessment**	**Activities and Resources**	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.OA.A Understanding addition as putting together	SMP1 Make sense of problems and persevere in	Partner Activity: One child puts 4 counters in a	Children make a number board to visualize the	Provide manipulatives.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

and adding to, and understand subtraction as taking apart and taking from.	solving them.	"pocket" and adds 1 more. The other child says how many there are total. Repeat this activity with adding and taking away different amounts.	"one-more" counting pattern. Solve basic number stories. Whole Class Activity: Put 3 counters in a cup. Add 1 more. Ask, "How many do I have now?" Repeat with other amounts.	Use smaller or larger numbers. Provide teacher models.
K.CC.B Count to tell the number of objects.	SMP1 Make sense of problems and persevere in solving them.	Play a matching game with dot cards.	Represent numbers on a ten-frame. Play "Top-It" with dot cards. Children make a number board to visualize the "one-more" counting patterns. Spread counters in a random way. Discuss efficient counting strategies.	Teacher modeling. Top it cards with smaller and larger values. Provide manipulatives so children can "see" the number. Use smaller and larger numbers.
K.G.A Identify and describe shapes.	SMP7 Look for and express regularity in repeated reasoning.	Draw the basic shapes (circle, square, triangle, and rectangle).	Create a collage of each shape: circles, triangles, and rectangles Describe attributes of	Provide visual representations of shapes. Allow children to "feel" the shapes by tracing

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

			triangles, circles and rectangles Classroom Scavenger Hunt: Find objects in the classroom that are circles, triangles, and rectangles.	around the edges of them. Teacher modeling. Introduce rhombus, trapezoids, hexagons and other shapes.
K.G.B. Analyze, create, compare, and compose shapes.	SMP7 Look for and express regularity in repeated reasoning.	Sort attribute blocks.	Show pictures of triangles and other shapes. Compare all of the shapes and identify the attributes of a triangle. Repeat with rectangles and circles. Create a new shape or picture using pattern blocks or geometry template. Create shapes: drawing, play-doh, sand tray, etc.	Provide visual representations of shapes. Allow children to "feel" the shapes by tracing around the edges of them. Teacher modeling. Introduce rhombus, trapezoids, hexagons and other shapes. Compose shapes. (ex: use 2 triangles to make a rhombus, etc.)
Benchmark Assessment • Baseline assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		
Summative Assessment(s)		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of**		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

• See "Formative/Summative Assessment" column in the chart above.	**Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 3 - Understanding Numbers	**Time Frame/Pacing:** 20 days

Essential Questions

- What are the names of the numbers?
- What is the sequence of numbers?
- What are strategies for counting objects?
- How do numbers represent objects?
- How are shapes composed?

Enduring Understandings

- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- A quantity can be represented numerically in various ways.
- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.
- Everyday objects have a variety of attributes, each of which can be measured in many ways.
- Measurements and attributes can be used to describe, compare, and make sense of objects.

Standards Taught and Assessed

- ■ K.CC.A Know number names and the count sequence.
- ■ K.CC.B Count to tell the number of objects.
- ■ K.CC.C Compare numbers.
- □ K.G.B Analyze, create, compare, and compose shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Show multiple ways to show a number. (write the number, picture, show fingers, tally marks, etc.)	• Specific other accommodations/modifications per a student's IEP or 504 plan

Daily Routines:

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning Objectives: We are learning to/that...	**Student Strategies (Mathematical Practices)**	**Formative/Summative Assessment**	**Activities and Resources**	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.CC.A Know number names and the count	SMP6 Attend to precision.	Create number books to represent the numbers 0-10	Count orally, recognize, and sequence from 0- 10	Provide a number line.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

sequence.		numerically using pictures.	Read and write numbers 0-10. Compare and order numbers. Use concrete objects to represent the numbers 0-10. Spin a number game. (child spins number and moves manipulative along game board) Student line up (Students are given a number between 0-10 and lining up in correct sequence)	Provide manipulatives. Read and write numbers higher or lower than 10. Provide spinners with higher and lower numbers.
K.CC.B Count to tell the number of objects.	SMP6 Attend to precision.	Count the number of dots on the face of a die and record the throw on a graph. (roll and record)	Children use ten frames to explore number pairs that add to 10.	
K.CC.C Compare numbers.	SMP2 Reason abstractly and quantitatively	Children create matching representations for any number between 5 and 10.	Pattern-Block Graph Number Squeeze Game (Children play a game to practice number recognition and explore greater than and less than).	
K.G.B Analyze, create,	SMP2 Reason abstractly	Recognize and name basic	Compare 2 dimensional	Provide visual representations of

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

compare, and compose shapes.	and quantitatively SMP6 Attend to precision. SMP7 Look for and make use of structure.	shapes such as: triangles, circles, rectangles, and squares. Use shapes (triangle, square, rectangle)-rotate them while children watch. Ask questions, such as: Is this still a triangle? Why/why not? Then, show two different shapes and pose questions, such as: Are these both triangles? Why or why not? Repeat with squares and rectangles.	shapes using a variety of figures. Create models of shapes by building or drawing them.	shapes. Teacher modeling.
Benchmark Assessment • Baseline assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 4 - Geometry, Measurement and Counting	**Timeframe/Pacing:** 20 Days

Essential Questions

- What are the names of the numbers?
- What is the sequence of numbers?
- What happens when we use operations on numbers?
- How are shapes composed and analyzed?
- What is weight?
- What is capacity?

Enduring Understandings

- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Number names tell us how many objects are in groups and allow us to count in order and compare groups of objects.
- Computational fluency includes understanding the meaning and the appropriate use of numerical operations.
- Flexible methods of computation involve grouping numbers in strategic ways.
- Proficiency with basic facts aids estimation and computation of larger and smaller numbers.
- Everyday objects have a specific name and a variety of attributes, each of which can be measured in many ways.
- Measurements and attributes can be used to describe, compare, and make sense of objects.

Standards Taught and Assessed

- ■ K.CC.A Know number names and the count sequence.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- □ K.G.B Analyze, create, compare, and compose shapes.
- □ K.MD.A Describe and compare measurable attributes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Baseline assessment	• Specific other accommodations/modifications per a student's IEP or 504 plan

Daily Routines:

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning	Student Strategies	Formative/Summative	Activities and Resources	Modifications/Accommo

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Objectives: We are learning to/that...	**(Mathematical Practices)**	**Assessment**		**dations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.CC.A Know number names and the count sequence.	SMP5 Use appropriate tools strategically.	Represent numbers 1-10 using manipulatives on a ten frame.	Practice skip counting by 10's orally. Use a calculator to practice reading and recording numbers to represent objects. Count and recognize numbers 10-19. Explore the number grid. Play Top-It	Provide a number line. Provide manipulatives.
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP1 Make sense of problems and persevere in solving them.	Building numbers: (Use connecting cubes to compose and decompose numbers in multiple ways).	Use connecting cubes to compose and decompose numbers in multiple ways. Play ten frame quick looks. Children mentally compose and decompose numbers from 5-10.	Have students compose and decompose larger or smaller numbers.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

K.G.B Analyze, create, compare, and compose shapes.	SMP7 Look for and make use of structure. SMP8 Look for and express regularity in repeated reasoning.	Use pattern blocks to construct a bigger more complex shape. Identify basic shapes.	Sort and classify attribute blocks. Describe familiar objects using the names of shapes. Play shapes by feel. Create models of shapes by building or drawing them.	Provide visual representations of shapes. Teacher modeling.
K.MD.A Describe and compare measurable attributes.	SMP6 Attend to precision. SMP7 Look for and make use of structure. SMP8 Look for and express regularity in repeated reasoning.	Use various containers and water or sand to compare volume. Answer questions such as: Which container holds more? Why? How can you find out which container holds more? Will any container fit inside another?	Compare the capacities of different containers by filling them with pompoms and counting the pompoms in each container. Compare the weights of objects by using a pan balance.	Teacher modeling
Benchmark Assessment • N/A		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 5 - Understanding Teen Numbers	**Time Frame/Pacing:** 20 days

Essential Questions

- What happens when we use operations on numbers?
- What are strategies for counting objects?
- How do numbers represent objects?
- How are numbers composed?
- How are shapes composed and analyzed?

Enduring Understandings

- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Number names tell us how many objects are in groups and allow us to count in order and compare groups of objects.
- Adding is putting groups together and making more; subtraction is taking groups away and making less.
- We can break numbers apart into groups of 10s and 1s to help us understand large numbers.
- Objects can be described and compared using their attributes.

Standards Taught and Assessed

- ■ K.CC.B Count to tell the number of objects.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- ■ K.NBT.Work with numbers 11-19 to gain foundations for place value.
- □ K.G.B Analyze, create, compare, and compose shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Write the numbers as high as you can.	• Specific other accommodations/modifications per a student's IEP or 504 plan

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning Objectives: We are learning to/that...	**Student Strategies (Mathematical Practices)**	**Formative/Summative Assessment**	**Activities and Resources**	**Modifications/Accommodations (ELL, Special Education, Gifted,**

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

				At-Risk of Failure, 504)
K.CC.B Count to tell the number of objects.	SMP6 Attend to precision. SMP7 Look for and make use of structure. SMP8 Look for and express regularity in repeated reasoning.	Have students note patterns on the number grid. Record numbers on a number scroll to 20 or higher.	Number Scrolls: children write numbers on scrolls.	Provide number line and number grid.
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively. SMP3 Construct viable arguments and critique the reasoning of others. SMP4 Model with mathematics.	Develop counting on as an addition strategy through a dice game. Roll 2 dice and compare dots to determine a larger number and count on from the higher number to get the sum.	Break down numbers up to 10 into added pairs in two or more ways. Play growing train: children model addition concretely and symbolically. Draw a comparison number story and justify and prove solutions. Identify the addition and equal symbols.	Provide counters. Teacher modeling. Provide a number line.
K.NB.T.Work with numbers 11-19 to gain foundations for place value.	SMP2 Reason abstractly and quantitatively. SMP7 Look for and make use of structure.	With a partner, use fingers to represent a teen number. Build teen numbers on the tens frames.	Explain how to use groups of 10s and 1s to represent any number from 11- 19 by using fingers and double ten frames.	Provide counters. Teacher modeling. Provide number line and number grid.

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

K.G.B Analyze, create, compare, and compose shapes.	SMP3 Construct viable arguments and critique the reasoning of others. SMP4 Model with mathematics. SMP6 Attend to precision.	Find and name shapes located in the room. Take a shape walk and use spatial vocabulary words to describe the position and/or location of the shape.	Identify 2- dimensional geometric shapes no matter what size or orientation. Describe familiar objects using the names of shapes. Create models of shapes by building or drawing them.	Provide visual representations of shapes
Benchmark Assessment • Mid-Year Assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 6 - Attributes and Number Stories	**Time Frame/Pacing:** 20 Days

Essential Questions

- What happens when we use operations on numbers?
- What are the defining attributes of triangles, rectangles, squares, and circles?
- What are the names of shapes?
- How can we compare shapes?

Enduring Understandings

- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.
- A quantity can be represented numerically in various ways.
- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Computation involves taking apart and combining numbers using a variety of approaches.
- Geometric properties can be used to construct geometric figures.

Standards Taught and Assessed

- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- □ K.MD.A Describe and compare measurable attributes.
- □ K.G.A Identify and describe shapes.
- □ K.G.B. Analyze, create, compare, and compose shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
• Sort objects by attributes	• Specific other accommodations/modifications per a student's IEP or 504 plan.

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning Objectives: We are learning to/that...	**Student Strategies (Mathematical Practices)**	**Formative Assessment**	**Activities and Resources**	**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively. SMP4 Model with mathematics.	Given an equation, identify the addition, subtraction, and/or equals symbol.	Model subtraction number stories. Play disappearing train: children model subtraction concurrently and symbolically through a game. Play hiding bears: find different combinations to add to 10. Play growing and disappearing train. Model number stories with addition and subtraction equations.	Provide counters. Teacher modeling. Provide a number line.
K.MD.A Describe and compare measurable attributes.	SMP4 Model with mathematics. SMP5 Use appropriate tools strategically. SMP6 Attend to precision.	Answer questions about a class graph: Which has the most/fewest? Are there any that are the same? Is there any that have none? Can students interpret the data on the graph to answer the questions?	Measure body heights using string. Compare and order straws by length. Create a pet graph.	Teacher modeling Measuring tape Provide a straight edge to line up the straws.
K.G.A Identify and describe shapes.	SMP3 Construct viable arguments and critique the reasoning of others.	Sort attribute blocks in various ways and describe how they are sorted.	Play with an attribute spinner: children analyze, describe, and compare geometric attributes.	Provide visual representations of shapes

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

	SMP6 Attend to precision. SMP7 Look for and make use of structure.			
K.G.B. Analyze, create, compare, and compose shapes.	SMP4 Model with mathematics.	Name real-life objects that are cubes, spheres, cones, rectangular prisms and cylinders. When shown a solid, tell whether it is cube, sphere or cylinder.	Compare and analyze 2D and 3D shapes with a shape museum.	Provide visual representations of shapes
Benchmark Assessment • Mid-year Assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit - 7 Understanding Numbers Larger than 10	**Time Frame/Pacing:** 20 Days

Essential Questions

- What happens when we use operations on numbers?
- How can we compare numbers?
- How can we compose and analyze shapes?
- How do you classify objects?

Enduring Understandings

- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.
- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Flexible methods of computation involve grouping numbers in strategic ways.
- The message conveyed by the data depends on how the data is collected, represented, and summarized.
- The size of an object does not always tell you its weight. For ex. larger does not always mean heavier.

Standards Taught and Assessed

- ■ K.CC.C Compare numbers.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- □ K.G.B Analyze, create, compare, and compose shapes.
- □ K.MD.B. Classify objects and count the number objects in each category.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment

- Refer to benchmark

Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)

- Specific other accommodations/modifications per a student's IEP or 504 plan.

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning	Student Strategies	Formative Assessment	Activities and Resources	Modifications/Accommo

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Objectives: We are learning to/that...	**(Mathematical Practices)**			**dations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.CC.C Compare numbers.	SMP2 Reason abstractly and quantitatively.	Represent numbers with manipulatives as 10s and 1s. Explain how groups of 10s and 1s represent any number between 11- 19.	Use double ten frames to count out and compare sets of 10-19 objects. Count and skip with calculators.	Provide filled in ten frames vs. empty ten frames. Provide hundred chart
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively. SMP4 Model with mathematics. SMP5 Use appropriate tools strategically.	Play dice addition game with two dice.	Number line addition and subtraction: use a walk- on number line to add and subtract numbers. Domino addition: add the dots on dominoes, match the totals to written numerals. Dice addition with addition facts within 5. Class number story book. Bead combinations	Provide counters. Teacher modeling. Provide a number line. Sort dominos by number of dots. Possible addition higher than 5. Different number of beads.
K.G.B Analyze, create, compare, and compose shapes.	SMP2 Reason abstractly and quantitatively. SMP3 Construct viable arguments and critique the	Identify 2- dimensional geometric shapes. Identify 3- dimensional geometric solids.	Play solid shapes match up: practice identifying 2D and 3D shapes. Mystery block: children	Provide visual representations of shapes

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

	reasoning of others. SMP6 Attend to precision.		ask questions about attributes to identify mystery shape.	
K.MD.B. Classify objects and count the number objects in each category.	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively. SMP6 Attend to precision.	Have students give estimates and talk about the strategies they use to estimate.	Estimation jar	Smaller and larger amounts. Estimation reference
Benchmark Assessment • End-Year Assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		

Key: ■ Major Cluster ☐ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 8 - Understanding Operations	**Time Frame/Pacing:** 20 Days

Essential Questions

- What are the names of the numbers?
- What is the sequence of numbers?
- What happens when we use operations on numbers?
- How can we compose and analyze shapes?
- How are numbers composed?

Enduring Understandings

- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.
- Patterns and relationships can be represented graphically, numerically, symbolically, or verbally.
- Computation involves taking apart and combining numbers using a variety of approaches.
- Knowing the value of numbers in each place will help us.
- Geometric properties can be used to describe, compare, and construct geometric figures.

Standards Taught and Assessed

- ■ K.CC.A Know number names and the count sequence.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- ■ K.NBT.A Work with numbers 11–19 to gain foundations for place value.
- □ K.G.B Analyze, create, compare, and compose shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment

- Count starting from a number other than one.

Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)

- Specific other accommodations/modifications per a student's IEP or 504 plan.

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Student Learning	Student Strategies	Formative Assessment	Activities and Resources	Modifications/Accommo

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Objectives: We are learning to/that...	**(Mathematical Practices)**			**dations (ELL, Special Education, Gifted, At-Risk of Failure, 504)**
K.CC.A Know number names and the count sequence.	SMP3 Construct viable arguments and critique the reasoning of others. SMP5 Use appropriate tools strategically. SMP6 Attend to precision.	Count on by 1s. Represent numbers with manipulatives as 10s and 1s. Compare and order numbers.	Interrupted counting: whole group or small group. Compare numbers and place them in order from smallest to largest. Make Name Collection Poster.	Provide a number line. Provide a number grid. Provide manipulatives. Teacher modeling.
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from.	SMP1 Make sense of problems and persevere in solving them. SMP5 Use appropriate tools strategically. SMP6 Attend to precision. SMP7 Look for and make use of structure.	Develop counting on as an addition strategy through practice and games. Give students two numbers less than 10 and ask them to add and subtract them.	Dice subtraction: play a game to develop fluency with subtraction facts within 5. Model birds on a wire to find number pairs to add to 10. Car race game: practice decomposing numbers to find missing part of 10. Number stories with calculators. Addition top-it: use number cards to gain fluency with addition.	Provide counters. Teacher modeling. Provide a number line. Change to subtraction within 10. Add to 5, 10, 15. Decompose within 5, 10, 15 Top it cards with pictures to match numbers/using higher numbers.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

			Make a function machine from a shoe box. Children use basic addition and subtraction problems.	
K.G.B Analyze, create, compare, and compose shapes.	SMP3 Construct viable arguments and critique the reasoning of others. SMP6 Attend to precision. SMP7 Look for and make use of structure.	Identify 2- dimensional and 3- dimensional geometric shapes. Recognize, describe, analyze, and model 2-dimensional and 3-dimensional shapes.	Solid shapes by feel. Use a sense of touch to recognize, describe, and analyze 3D shapes. Model 2D and 3D shapes using marshmallows and toothpicks.	Provide visual representations of shapes
K.NBT.A Work with numbers 11–19 to gain foundations for place value.	SMP4 Model with mathematics. SMP7 Look for and make use of structure.	Pick two number cards to create a 2-digit number and show the number with bundles of ten and single craft sticks.	Craft stick bundles: use bundles of 10 and 1's to represent numbers greater than 10.	Use smaller or greater numbers.
Benchmark Assessment • End Year Assessment		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Hillsborough Township Public Schools
Kindergarten Mathematics Curriculum

Unit Title: Unit 9 - Measurement	**Time Frame/Pacing:** 20 Days

Essential Questions

- How can we compare numbers?
- What does "addition" (joining together) mean?
- What does "subtraction" (taking apart) mean?
- What are the defining attributes of shapes?
- What are the names of shapes?
- What is weight? How do we measure weight?
- What is capacity? How do we measure capacity?
- How do we measure time?

Enduring Understandings

- One representation may sometimes be more helpful than another; multiple representations give a fuller understanding of a problem.
- Number names tell us how many objects are in groups and allow us to count in order and compare groups of objects.
- Computational fluency includes understanding the meaning and the appropriate use of numerical operations.
- Computation involves taking apart and combining numbers using a variety of approaches.
- Measurements can be used to describe, compare, and make sense of objects.

Standards Taught and Assessed

- ■ K.CC.C Compare Numbers.
- ■ K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from
- □ K.MD.A Describe and compare measurable attributes.
- □ K.G.A Identify and describe shapes.

Highlighted Interdisciplinary Connections

ELA

- SL.K.1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
- RF.K.1. Demonstrate understanding of the organization and basic features of print.

Social Studies

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

- 6.1.2.CivicsPD.1: Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.
- NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Highlighted Career Ready Practices and 21st Century Themes and Skill

- 9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community
- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Social Emotional Learning Competencies

- 2.1.2.EH.3: Demonstrate self-control in a variety of settings (e.g., classrooms, playgrounds, special programs)
- 2.1.2.SSH.7: Explain healthy ways for friends to express feelings for and to one another.
- 2.2.2.MSC.6: Execute appropriate behaviors and etiquette while participating in and viewing activities, games, sports, and other events to contribute to a safe environment.
- 2.2.2.MSC.7: Demonstrate kindness towards self and others during physical activity to create a safe and caring environment.
- 2.2.2.PF.4: Demonstrate strategies and skills that enable team and group members to achieve goals.
- 2.3.2.PS.5: Define bodily autonomy and personal boundaries.
- 2.3.2.PS.6: Demonstrate how to communicate personal boundaries and show respect for someone else's personal boundaries including friends and family.

Pre-Assessment

- Make different number combinations of 10.

Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)

- Specific other accommodations/modifications per a student's IEP or 504 plan.

Daily Routines

- Number of the Day
- Attendance Daily Schedule
- Monthly Calendar
- Weather and Temperature Observation
- Survey

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

Student Learning Objectives: We are learning to/that...	Student Strategies (Mathematical Practices)	Formative/Summative Assessment	Activities and Resources	Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)
K.CC.C Compare Numbers.	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively.	Add and represent "doubles" addition facts.	Doubles on double 10 frames.	Provide filled in ten frames vs. empty ten frames. Provide number line
K.OA.A Understanding addition as putting together and adding to, and understand subtraction as taking apart and taking from	SMP1 Make sense of problems and persevere in solving them. SMP2 Reason abstractly and quantitatively. SMP6 Attend to precision. SMP7 Look for and make use of structure. SMP8 Look for and express regularity in repeated reasoning.	Represent and solve addition and subtraction number stories using number sentences. Play dice addition game with two dice.	Subtraction Top-It: use number cards to gain fluency with subtraction. Play "What's My Rule?" with numbers. Play roll and record with numeral dice. Fishing for 10. Play a fishing game to practice finding combinations to 10.	Add pictures to cards/use higher numbers Teacher modeling Larger and smaller numbers with roll and record. Find combinations of 5, 10, 15.
K.MD.A Describe and compare measurable attributes.	SMP3 Construct viable arguments and critique the reasoning of others. SMP5 Use appropriate tools strategically.	Compare two objects using measurement vocabulary. Sort objects as heavier than/ lighter than, or longer than/shorter than.	Measure height, width, weight, capacity and area of childrens backpacks. Use pan balance to explore units of weight.	Teacher modeling Measuring tape Objects of completely different weight vs.

Key: ■ Major Cluster □ Supporting Cluster ◎ Additional Cluster

	SMP6 Attend to precision.		Measure time in seconds: use tools to measure and compare lengths in seconds.	similar weights.
K.G.A Identify and describe shapes.	SMP1 Make sense of problems and persevere in solving them. SMP3 Construct viable arguments and critique the reasoning of others. SMP6 Attend to precision.	Use geometric terms to describe and recreate designs.	Make my design: play a game using shapes and positional language to re-create pattern block designs. Create a classroom map.	No board in between students. More/less number of shapes. Less detail/more detail map design. Provide map key.
Benchmark Assessment • Start benchmark mid May for possible end of year conference.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		
Summative Assessment(s) • See "Formative/Summative Assessment" column in the chart above.		**Modifications/Accommodations (ELL, Special Education, Gifted, At-Risk of Failure, 504)** • Specific other accommodations/modifications per a student's IEP or 504 plan.		

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Bibliography
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Print and Digital Supplemental Materials/Resources:

Bell, J., Bell, M., Beer, D. W., Freedman, D., Goodsell, N. G., Hanvey, N., Leslie, D. A., Morrison, K. *Everyday Mathematics: K Teacher's manual, Volumes 1 and 2, Fourth Edition 2020.* McGraw Hill Education: Columbus, Ohio.

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McGraw Hill Education. *Everyday Mathematics: Minute Math, Grade K.* McGraw Hill Education: Columbus, Ohio.

Digital Resources (all materials listed above are also digital)

McGraw Hill ConnectEd