NEPTUNE CITY SCHOOL DISTRICT

Mathematics Curriculum Kindergarten



NEPTUNE CITY SCHOOL DISTRICT

Office of the Chief School Administrator, Principal 210 West Sylvania Avenue Neptune City, NJ 07753

The Neptune City School District is appreciative and proud to accept and align the curriculum of the Neptune Township School District to properly prepare the Neptune City students for successful integration into the Neptune Township High School Educational Program.

August 2024

Document *

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SCHOOL DISTRICT MISSION STATEMENT

The Neptune City School District, in partnership with the parents and the community, will support and sustain an excellent system of learning, promote pride in diversity, and expect all students to achieve the New Jersey Student Learning Standards at all grade levels to become responsible and productive citizens.

NEPTUNE CITY SCHOOL DISTRICT

MATHEMATICS CURRICULUM KINDERGARTEN

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Suggested Pacing Guide

<u>Topic/Unit</u>	<u>Number of</u> <u>Lessons</u>	<u>Total Days</u>
Topic 1: Numbers 0 to 5	10	16 / September
Topic 2: Compare Numbers 0 to 5	5	9 / October
Topic 3: Numbers 6 to 10	8	20 / October - November
Topic 4: Compare Numbers 0 to 10	5	10 / November
Topic 5: Classify and Count Data	4	10 / November - December
Topic 6: Understand Addition	8	13 / December - January
Topic 7: Understand Subtraction	7	13 / January - February
Topic 8: More Addition and Subtraction	10	14 / February- March
Topic 9: Counting Numbers to 20	7	13 / March
Topic 10: Compose and Decompose Numbers 11 to 19	7	10 / April
Topic 11: Count Numbers to 100	5	10 /April
Topic 12: Identify and Describe Shapes	7	11 / May
Topic 13: Analyze, Compare and Create Shapes	7	11 / May
Topic 14: Describe and Compare Measurable Attributes	6	9 / June

Topic 1	Numbers 0 to 5
Suggested Time Frame	16 days / September

Topic 1 introduces counting as more than just a verbal skill. The principles associated with counting are crucially important throughout mathematics. In this topic, students count up to 5 objects in various arrangements, tell how many, and write the numeral.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.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).
- K.CC.B.4.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.
- K.CC.B.4.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.
- K.CC.B.4.c Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.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.

Essential Questions:

How can numbers from 0 to 5 be counted, read, and written?

Enduring Understandings:

Students will understand that...

- Counting tells how many are in a group, regardless of their arrangement or the order in which they were counted.
- The last number said when counting in a group is the total.
- Counting is cumulative.
- There is a unique symbol that goes with each number word.
- Zero is a number that tells how many objects there are when there are none.
- There is a specific order to the set of whole numbers.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.

Skills:

Students will be able to ...

• Count 1, 2, and 3 objects.

- Count groups of 1, 2, and 3 objects shown in different ways.
- Read and write the numbers 1, 2, 3.
- Count 4 and 5 objects.
- Count groups of 4 and 5 objects shown in different ways.
- Read and write the numbers 4 and 5.
- Use zero to tell when there are no objects.
- Read and write the number 0.
- Count up to the number 5.
- Use math to explain what you know about counting.

Topic Vocabulary			
Key Vocabulary:	• Zero		
	• Order		

Assessment Evidence			
Formative Assessment(s) and Evidence of	Summative Assessment(s) and		
Learning:	Performance Task(s):		
Assessment Check-In	• End of Topic Assessment		
Informal Observations	Benchmark Assessments		
Convince Me! Practice Questions	• Pick a Project		
Guided Practice Problems	Student Work Products		
Independent Practice Problems			
Problem Solving Problems			
Quick Check Problems			
• Games			
• Questioning			

Lea	rning	Plan
Lua	1 111116	1 16611

Suggested Learning Activities

For Each Topic...

- Topic Opener Activity
- Pick a Project
- 3-Act Math

For each lesson...

- Daily Review
- Solve and Share
- Visual Learning Bridge
- Convince Me
- Guided Practice
- Independent Practice
- Problem Solving
- Quick Check
- Reteach to Build Understanding pages
- Build Mathematical Literacy pages
- Enrichment pages
- Additional Practice Pages
- Math Centers and Games from lists below

Math Centers and Games

Materials: Counters (teaching tool 6), crayons, plastic bags, buttons, dried pasta or beans, number cards 1-3 (teaching tool 3), connecting tubes (teaching tool 8), paper bag, plastic or paper cup, number cards 1-5 (teaching tool 3), crayons (yellow, red, blue, green), 5 blocks, basket, construction paper, masking tape, tape.

Technology Center **Intervention Activities Activity Center** www.SavvasRealize.com • Show It! Clap It! 1-1 • Showtime 1-1 • Counting in Different • Dance Party 1-8 • Math Tools (use for Rain 1-9 Arrangements 1-2 • lessons without specific • Tracing 1, 2, 3. 1-3 Clothes for Different • • Hide, Guess, and Count Technology Center Weather 1-10 activity from list above) 1-4 • Different Arrangements Pick a Project of 4 and 5. 1-5 Projects should be worked on • Funny 4s and 5s 1-6 during lessons without other • What's in the Cup? 1-7 Activity Center option from list • Zero Blocks 1-8 above. • Lily Pad Numbers 1-9 • Fun With Animals Snap the Number 1-10 • Play Ball! • • License Plates and Numbers

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –	eck ALL that apply – Indicate whether these skills are:			
			•	E – encouraged	
21 st Century Themes			•	T – taught	
			•	A – assessed	
	1			Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CRP12. Work productively in teams	
	while using cultural global competence.				
Interdisciplinary Connections					
Other standards covered:					
NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate					

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Technology Integration

_x__8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- ____Recognize one's own feelings and thoughts
- ____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- \underline{x} Recognize and identify the thoughts, feelings, and perspectives of others
- _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
 - Identify the consequences associated with one's action in order to make

constructive choices Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Ēstablish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- __Identify who, when, where, or how to seek help for oneself or others when needed

Topic 2	Compare Numbers 0 to 5
Suggested Time Frame	9 days / October

Topic 2 focuses on comparing numbers from 0 to 5. Students compare groups of objects as well as the corresponding numbers. This work allows for a deep understanding of the concepts of greater than, less than, equal, and not equal.

Desired Results

Established Goals: New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.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).
- K.CC.B.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.
- K.CC.C.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.

Essential Questions:

How can numbers from 0 to 5 be compared and ordered?

Enduring Understandings:

Students will understand that...

- Two groups of objects are equal in number if they can be directly matched, one-to-one, with no extras in either group.
- Two groups of objects can be directly compared using a matching process.
- Two sets of objects can be compared by a number using counting strategies, which is a more efficient method than matching.
- Good math thinkers use math they know to show and solve problems.

Skills:

Students will be able to ...

- Compare groups to see whether they are equal by matching.
- Tell whether one group is greater in number then another group.
- Tell whether one group is less in number than another group.
- Compare numbers.
- Use objects, drawings, and numbers to compare numbers.

Topic Vocabulary

Key Vocabulary:	Compare
	• Equal
	• Group
	• Same number as
	• Greater than
	• Less than
	• Model

Assessment Evidence			
Formative Assessment(s) and Evidence of	Summative Assessment(s) and		
Learning:	Performance Task(s):		
Assessment Check-In	• End of Topic Assessment		
Informal Observations	Benchmark Assessments		
Convince Me! Practice Questions	• Pick a Project		
Guided Practice Problems	Student Work Products		
Independent Practice Problems			
Problem Solving Problems			
Quick Check Problems			
• Games			
Questioning			

Learning Plan				
Suggested Learning Activities				
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 				
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understanding Build Mathematical Literacy point Enrichment pages Additional Practice Pages 	ng pages pages			
• Main Centers and Games non	II IISIS DEIOW			
	Math Centers and Games			
 Materials: Intervention Activities Big Chairs and Little Blocks 2-1 One More 2-2 Leaves on a Vine 2-3 Count and Compare 2-4 Fall Leaves 2-5 	Technology Center www.SavvasRealize.com • • Math Tools (use for lessons without specific Technology Center activity from list above)	Activity Center• Snow Rollers 2-1• Amazing Cows 2-3• Rainbows 2-4• Comparing Cows 2-5Pick a ProjectProjects should be worked on during lessons without other Activity Center option from list above.• Spooky Spiders • Flower Power • Great Golf!		

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indicate whether these skills are:		
			• E – encouraged		
	21 st Century Themes		• T – taught		
			•	A – assessed	
	-			Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CRP12. Work productively in teams	
				while using cultural global competence.	
Interdisciplinary Connections					

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science: K-ESS3-2.Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather.*

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- ____Recognize one's own feelings and thoughts
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- ____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
 - <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u> Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

<u>x</u> Develop, implement and model effective problem solving and critical thinking skills

Identify the consequences associated with one's action in order to make constructive choices

____Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure

Identify who, when, where, or how to seek help for oneself or others when needed

Topic 3	Numbers 6 to 10
Suggested Time Frame	20 days/ October - November

Topic 3 continues the counting sequence with a focus on numbers 6 to 10. It also highlights the principles necessary for accurate counting, as well as featuring a variety of representations including numeral writing.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.A.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).
- K.CC.B.4.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.
- K.CC.B.4.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.
- K.CC.B.4.c Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.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.
- K.CC.C.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.

Essential Questions:

How can numbers from 6 to 10 be counted, read, and written.

Enduring Understandings:

Students will understand that...

- Counting tells how many are in a set, or group, no matter which order the objects are counted. The last number said when counting a group is the total.
- Counting is cumulative.
- There is more than one way to show a number.
- There is a unique symbol that goes with each number word.
- There is a specific order to the set of whole numbers.
- Good math thinkers look for patterns in math to help solve problems.

Skills:

Students will be able to...

- Count the number 6 and 7.
- Read and write the number six and seven.
- Count the numbers 8 and 9.
- Read and write the numbers 8 and 9.
- Count to the number 10.
- Read and write the number 10.
- Count groups of numbers to 10.
- Use counting patterns to solve a problem.

Topic Vocabulary		
Key Vocabulary:	 Six Seven Eight Nine Ten 	

Assessment Evidence		
Formative Assessment(s) and Evidence of	Summative Assessment(s) and	
Learning:	Performance Task(s):	
Assessment Check-In	• End of Topic Assessment	
Informal Observations	Benchmark Assessments	
Convince Me! Practice Questions	• Pick a Project	
Guided Practice Problems	Student Work Products	
Independent Practice Problems		
 Problem Solving Problems 		
Quick Check Problems		
• Games		
Questioning		
-		

Learning Plan					
	Suggested Learning Activities	5			
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 					
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understanding pages Build Mathematical Literacy pages Enrichment pages Additional Practice Pages Math Centers and Games from lists below 					
	Math Centers and Games				
Materials: Counters (teaching to (teaching tool 8), number cards 0-yellow crayons	ol 6), number cards 6 and 7 (teach 10 (teaching tool 3), two color cou	ing tool 3), connecting cubes inters (teaching tool 6), red and			
Intervention Activities Number Tags 3-1 Rainbow Writing 3-2 Fingerprints 3-3 8 or 9 Counters 3-4 The Bunny Trail 3-5 It's Fishy 3-6 What Changed? 3-7 Color-Change Trains 3-8	 Technology Center www.SavvasRealize.com Math Tools (use for lessons without specific Technology Center activity from list above) 	 Activity Center Finger Play 3-2 Frogs 3-4 Leopards 3-6 Red and Blue Gloves 3-7 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. Ode to Food Personal Plane Coral Reef Community 			

	In this unit plan, the following 21st Century Life and Careers skills are addressed:					
	Check ALL that apply –			te whether these skills are:		
			•	E – encouraged		
	21 st Century Themes		•	T – taught		
			•	A – assessed		
				Career Ready Practices		
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and		
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	Income and Careers		TA	CRP2. Apply appropriate academic		
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Х	Money Management		Т	CRP3. Attend to personal health and		
				financial well-being.		
	Credit and Debt Management		ETA	CRP4. Communicate clearly and		
				effectively and with reason.		
	Planning, Saving, and Investing			CRP5. Consider the environmental,		
				social and economic impacts of		
				decisions.		
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and		
				innovation.		
	Civic Financial Responsibility			CRP7. Employ valid and reliable		
				research strategies.		
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to		
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				in solving them.		
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical		
	and Preparation			leadership and effective management.		
X	Career Awareness			CRP10. Plan education and career		
				paths aligned to personal goals.		
	Career Exploration		E	CRP11. Use technology to enhance		
				productivity.		
	Career Preparation			CRP12. Work productively in teams		
				while using cultural global competence.		
	Interdisciplinary Connections					

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

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

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking -Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

_____Recognize one's own feelings and thoughts

- _____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations

_____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- \underline{x} Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- _____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- _Identify who, when, where, or how to seek help for oneself or others when needed

Торіс 4	Compare Numbers 0 to 10
Suggested Time Frame	10 days / November

Topic 4 focuses on comparing numbers from 0 to 10. Students use the concepts of "greater than", "less than", "equal", and "not equal" to compare groups of objects and numbers.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.B.4.c Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.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.
- K.CC.C.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.
- K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions:

How can numbers from 0 to 10 be compared and ordered?

Enduring Understandings:

Students will understand that ...

- In comparing two groups, the group with more objects is greater in number than the other. The group with fewer objects is less in number than the other.
- In a pair of numbers, the number that tells more is greater. The number that tells fewer is less.
- Two groups can be compared by counting the number of objects in each group and finding the position of each number within the counting sequence.
- Good math thinkers look for things that repeat in a problem. They use what they learned from one problem to help them solve other problems.

Skills:

Students will be able to ...

- Compare groups of up to 10 objects.
- Compare groups of numbers using numerals to 10.
- Compare groups of numbers by counting.
- Compare two numbers.
- Repeat something from one problem to help solve another problem.

Topic Vocabulary

Key Vocabulary:

• Review vocabulary from previous topics

Assessment Evidence			
Formative Assessment(s) and Evidence of	Summative Assessment(s) and		
Learning:	Performance Task(s):		
Assessment Check-In	• End of Topic Assessment		
Informal Observations	Benchmark Assessments		
Convince Me! Practice Questions	• Pick a Project		
Guided Practice Problems	Student Work Products		
Independent Practice Problems			
Problem Solving Problems			
Quick Check Problems			
• Games			
Questioning			

	Learning Dlan	
	Learning Plan	
	Suggested Learning Activitie	8
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 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandif Build Mathematical Literacy p Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below	
	Math Centers and Games	
Materials: connecting cubes (tea 22), two color counters, (teaching	ching tool 8), counters (teaching t g tool 6)	tools 6), 10 frames (teaching tool
 Intervention Activities Flash in a Group 4-1 Comparing Cube Trains 4-2 Fold and Compare 4-3 Tile Count Challenge 4-4 Color-Change Trains 4-5 	Technology Center www.SavvasRealize.com Math Tools (use for lessons without specific Technology Center activity from list above)	Activity Center • Lots of Spots 4-1 • Greater Than or Less Than 4-2 • Clouds 4-3 • Rain and Snow 4-5 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. • Space Fitness • Fruit Salad • A Fun Ride • Vacation Plans

	In this unit plan, the following 21st Century Life and Careers skills are addressed:			
	Check ALL that apply –		Indica	te whether these skills are:
			•	E – encouraged
	21 st Century Themes		•	T – taught
			•	A – assessed
				Career Ready Practices
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and
				contributing citizen and employee.
	Income and Careers		TA	CRP2. Apply appropriate academic
				and technical skills.
Х	Money Management		Т	CRP3. Attend to personal health and
				financial well-being.
	Credit and Debt Management		ETA	CRP4. Communicate clearly and
				effectively and with reason.
	Planning, Saving, and Investing			CRP5. Consider the environmental,
				social and economic impacts of
				decisions.
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and
				innovation.
	Civic Financial Responsibility			CRP7. Employ valid and reliable
				research strategies.
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to
				make sense of problems and persevere
				in solving them.
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical
	and Preparation			leadership and effective management.
X	Career Awareness			CRP10. Plan education and career
				paths aligned to personal goals.
	Career Exploration		E	CRP11. Use technology to enhance
				productivity.
	Career Preparation			CRP12. Work productively in teams
				while using cultural global competence.
	Interdisci	nlin	ary Co	nnections

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

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

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

_____Recognize one's own feelings and thoughts

- _____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations

_____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- \underline{x} Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Establish and maintain healthy relationships
- _____Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- _Identify who, when, where, or how to seek help for oneself or others when needed

Торіс 5	Classify and Count Data
Suggested Time Frame	10 days / November - December

Topic 5 asks students to classify up to 10 objects into two given categories, count the number of objects in each of those categories, and then sort the categories by count (compare the numbers of objects and the categories).

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- K.CC.B.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.
- K.CC.C.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.
- K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.

Essential Questions:

How can classifying data help answer questions?

Enduring Understandings:

Students will understand that...

- Objects can be classified into two categories, based on whether they have or do not have a particular attribute. Each group can then be counted
- Data can be sorted and compared in a variety of ways.
- Objects can be sorted by putting those with a particular attribute in one group and those without the attribute in another group. Then, the groups can be counted and the categories can be compared by count.
- Good math thinkers use math to explain why they are right. They can talk about the math that others do too.

Skills:

Students will be able to ...

- Classify objects into categories and tell why they are in each category.
- Count how many objects are in different categories.
- Use counting to compare how many objects are in categories.
- Tell whether the way objects have been sorted, counted, and compared makes sense.

Topic Vocabulary		
Key Vocabulary:	 Category Classify Chart Tally mark 	

Assessment Evidence			
	Formative Assessment(s) and Evidence of	Summative Assessment(s) and	
	Learning:	Performance Task(s):	
•	Assessment Check-In	• End of Topic Assessment	
•	Informal Observations	Benchmark Assessments	
•	Convince Me! Practice Questions	• Pick a Project	
•	Guided Practice Problems	Student Work Products	
•	Independent Practice Problems		
•	Problem Solving Problems		
•	Quick Check Problems		
•	Games		
•	Questioning		

	Learning Plan					
Suggested Learning Activities						
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 						
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandi Build Mathematical Literacy Enrichment pages Additional Practice Pages Math Centers and Games from 	ing pages pages m lists below					
	Math Centers and Games					
Materials: Two color counters (teaching tool 6)					
 Intervention Activities Sorting Cubes 5-1 Tally O! 5-2 Count Me In! 5-3 Comparing Cubes 5-4 	 <u>Technology Center</u> <u>www.SavvasRealize.com</u> Save the Word Grade K Topics 1-4 math game 5-3 Math Tools (use for lessons without specific Technology Center activity from list above) 	Activity Center• So Many Fish 5-1• What's in the Sea? 5-2• Dogs 5-3Pick a ProjectProjects should be worked on during lessons without other Activity Center option from list above.• Make a Flag • Count the Wheels • Making Music				

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indicate whether these skills are:		
			•	E – encouraged	
21 st Century Themes			•	T – taught	
			•	A – assessed	
				Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CRP12. Work productively in teams	
				while using cultural global competence.	
	Interdisciplinary Connections				

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

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

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

Recognize one's own feelings and thoughts

- _____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations

_____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- \underline{x} Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- _Identify who, when, where, or how to seek help for oneself or others when needed

Торіс б	Understand Addition
Suggested Time Frame	13 days / December - January

Topic 6 introduces students to the concept of addition. It focuses on a deep understanding of addition as "put together" and "add to". Students learn how to represent addition in different ways and solve addition or problems, all building towards fluently adding within 5.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.OA.A.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.
- K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.
- K.CC.A.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).
- K.CC.B.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.

Essential Questions:

What types of situations involve addition?

Enduring Understandings:

Students will understand that ...

- Addition can be shown in different ways, such as with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- Adding one or more objects to an existing group is one interpretation of addition.
- Putting together parts to make a whole is one interpretation of addition.
- Adding parts together to make a whole is one interpretation of addition.
- Equations using + and = can be used to show parts of a whole.
- Objects, drawings, counting, and equations can be used to help solve addition problems involving adding to.
- Objects, drawings, counting, and equations can be used to help solve addition problems involving putting together.
- Patterns can be used to help solve addition problems.
- Good math thinkers use math they know to show and solve problems.

Skills:

Students will be able to ...

• Show numbers in many ways.

- Represent addition as adding to a number.
- Represent addition as putting two or more numbers together
- Write an equation to show addition.
- Solve addition problems.
- Use equations to represent and explain addition.
- Use patterns to add numbers together.
- Model adding different numbers together by drawing, counting, or writing equations.

Topic Vocabulary				
Key Vocabulary:	 Join In all Part Whole Addition sentence Add Plus sign Equal sign Equation 			
	• Sum			

Assessment Evidence				
Formative Assessment(s) and Evidence of	Summative Assessment(s) and			
Learning:	Performance Task(s):			
Assessment Check-In	• End of Topic Assessment			
Informal Observations	Benchmark Assessments			
Convince Me! Practice Questions	• Pick a Project			
Guided Practice Problems	Student Work Products			
Independent Practice Problems				
Problem Solving Problems				
Quick Check Problems				
• Games				
Questioning				
Learning Plan				
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	Suggested Learning Activities	s		
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 		~		
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandi Build Mathematical Literacy Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below			
Matariala, true color countary (Math Centers and Games	(tooshing tool 9) anayong		
Intervention Activities	Technology Conter	(teaching tool 8), crayons		
 Number Stories About Us 6-1 Sea Rhymes 6-2 Step Inside the Circle 6-3 Sand Signs 6-4 Adding Adders 6-5 Picture Story 6-6 Student Equations 6-7 Strawberries and Blueberries 6-8 	 Save the Word Grade K Topics 1-4 math game 6-7 Math Tools (use for lessons without specific Technology Center activity from list above) 	 Baby Animals 6-1 Summer Sweets 6-3 Rocks 6-5 Yummy Fruits 6-6 Projects should be worked on during lessons without other Activity Center option from list above. Baby Animals Getting to School Playground Fun My School Day 		

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indica	te whether these skills are:	
			• E – encouraged		
21 st Century Themes			•	T – taught	
			•	A – assessed	
				Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CRP12. Work productively in teams	
				while using cultural global competence.	
Interdisciplinary Connections					

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

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

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

Recognize one's own feelings and thoughts

- _____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations

_____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u>_Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

- _____Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- _____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- _Identify who, when, where, or how to seek help for oneself or others when needed

Topic 7	Understand Subtraction
Suggested Time Frame	13 days / January - February

Topic 7 introduces students to the concept of subtraction. It focuses on a deep understanding of subtraction as "take apart" and "take from". Students learn how to represent subtraction in different ways and solve subtraction word problems, all building towards fluently subtracting within 5.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.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).
- K.CC.B.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.
- K.OA.A.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.
- K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.

Essential Questions:

How can representing taking apart and taking from in different ways help you learn about subtraction?

Enduring Understandings:

Students will understand that...

- Subtraction can be shown in different ways, such as with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- Separating parts from a whole is one interpretation of subtraction.
- Taking parts from a whole is one interpretation of subtraction.
- Subtraction equations using and = can be used to show subtraction situations.
- Objects, words, drawings, counting, and equations can be used to help solve subtraction problems involving taking from.
- Patterns can be used to help solve subtraction problems.
- Good math thinkers know how to pick the right tools to solve math problems.

Skills:

Students will be able to...

- ٠
- •
- Show numbers in many ways. Take apart a number and tell the parts. Represent subtraction as taking away from a whole. •
- Write an equation to show subtraction. •
- Find the difference of two numbers. •
- Find patterns in subtraction equations. Use tools to subtract numbers. •
- •

Topic Vocabulary				
Key Vocabulary:	• Left			
	 Subtraction sentence 			
	Difference			
	• Subtract			
	• Minus sign (-)			

Assessment Evidence				
Formative Assessment(s) and Evidence of	Summative Assessment(s) and			
Learning:	Performance Task(s):			
Assessment Check-In	• End of Topic Assessment			
Informal Observations	Benchmark Assessments			
Convince Me! Practice Questions	• Pick a Project			
Guided Practice Problems	Student Work Products			
Independent Practice Problems				
 Problem Solving Problems 				
Quick Check Problems				
• Games				
• Questioning				

Learning Plan				
	Suggested Learning Activities	S		
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice 				
 Independent Practice Problem Solving Quick Check Reteach to Build Understanding Build Mathematical Literacy period Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below			
	Math Centers and Games			
Materials: Two-color counters (1 cards 0-10 (teaching tool 3),	teaching tools 6), connecting cube	s (teaching tool 8), number		
Intervention Activities • What's Left? 7-1 • Separate Me! 7-2 • Storyboard 7-3 • Crayon Differences 7-4 • Spend It! 7-5 • Take Me Away 7-6 • Draw the Story 7-7	 Technology Center www.SavvasRealize.com Save the Word: Grade K topics 1-4 math game 7-6 Math Tools (use for lessons without specific Technology Center activity from list above) 	Activity Center• Fly Away 7-2• Animal Needs 7-4• More Animal Needs 7-5• Reptiles on the Move 7-7Pick a Project Projects should be worked on during lessons without other Activity Center option from list above.• Books, Books, Books! • Ten Pretty Flowers • Star Colors		

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indicate whether these skills are:		
			•	E – encouraged	
	21 st Century Themes		•	T – taught	
			•	A – assessed	
				Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and financial well-being	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental, social and economic impacts of decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.	
9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.	
	Career Exploration		Е	CRP11. Use technology to enhance productivity.	
	Career Preparation			CRP12. Work productively in teams while using cultural global competence.	
	Interdisciplinary Connections				

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
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- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

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The following social and emotional competencies are integrated in this curriculum document:

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- ____Recognize one's own feelings and thoughts
- ____Recognize the impact of one's feelings and thoughts on one's own behavior
- ____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
 - <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u> Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

<u>x</u> Develop, implement and model effective problem solving and critical thinking skills

Identify the consequences associated with one's action in order to make constructive choices

____Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Ēstablish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure

Identify who, when, where, or how to seek help for oneself or others when needed

Topic 8	More Addition and Subtraction
Suggested Time Frame	14 days / February- March

In topic 8, students work with both addition and subtraction as they build fluency with both operations within 5. This topic also focuses on another type of word problem, both addends unknown, with sums to 10, and finding missing parts of 10.

Desired Results

Established Goals: New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.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).
- K.OA.A.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.
- K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.OA.A.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).
- K.OA.A.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.
- K.OA.A.5 Demonstrate fluency for addition and subtraction within 5.

Essential Questions:

How can solving problems in more than one way help you learn about addition and subtraction?

Enduring Understandings:

Students will understand that...

- There is more than one way to show a number.
- An addition equation can show the parts and the whole.
- Addition and subtraction facts have an inverse relationship.
- Equations using +, -, and = can be used to show parts of a whole.
- Good math thinkers know how to think about words and numbers to solve problems.
- Addition and subtraction facts can be solved using different strategies.
- Objects, drawings, counting, and equations can be used to help solve addition problems involving unknown addends.
- For any number from 1-9, there is another number to make 10

Skills:

Students will be able to...

- Write an addition equation to solve a word problem.
- Solve related addition and subtraction equations.
- Reason about numbers and operations.
- Write addition and subtraction equations within 5 and remember them.
- Write an addition equation to solve a word problem.
- Show how to make a group of 10.
- Find a number of partners for 10.
- Find a missing part to make 10.

Topic Vocabulary		
Key Vocabulary:	Break apartOperation	

Assessme	nt Evidence
Formative Assessment(s) and Evidence of	Summative Assessment(s) and
Learning:	Performance Task(s):
Assessment Check-In	• End of Topic Assessment
Informal Observations	Benchmark Assessments
Convince Me! Practice Questions	• Pick a Project
Guided Practice Problems	Student Work Products
Independent Practice Problems	
Problem Solving Problems	
Quick Check Problems	
• Games	
Questioning	

Learning Plan					
	Suggested Learning Activities				
For Each Topic • Topic Opener Activity • Pick a Project		<u> </u>			
• 3-Act Main					
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understanding pages Build Mathematical Literacy pages Enrichment pages Additional Practice Pages Math Centers and Games from lists below 					
	Math Centers and Games				
Materials: 2-color counters (tea teaching tool 26), 10- frame (tea	ching tool 6), connecting cubes (t ching tool 22), crayons	teaching tool 8), part-part mat (
 Intervention Activities Different Arrangements of 4 and 5 8-1 Equations with 4 and 5 8-2 Draw the Story 8-3 How Did You Find That 8-4 Rewind 8-5 Covered Counters 8-6 Cut to Make Parts of 10 8-7 Ten-Frame Fill Up 8-8 Stand Up, Sit Down 8-9 Make 101 	 Technology Center www.SavvasRealize.com Tentacles math game 8-1, 8-2, 8-3, 8-5, 8-6 Fluency Add and Subtract within 5 math game 8-4 Save the Word: Grade K Topics 1-8 math game 8-10 Math Tools (use for lessons without specific Technology Center activity from list above) 	Activity Center • Recycle 8-2 • Fresh Food 8-5 • All Kinds of Corn 8-7 • More Recycling 8-10 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. • Egg Moth • Vegetable Gardening • Pictures in the Sky • Fun in a Trace			

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indicate whether these skills are:		
			•	E – encouraged	
	21 st Century Themes		•	T – taught	
			•	A – assessed	
				Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and financial well-being	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental, social and economic impacts of decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.	
9.2	Career Awareness, Exploration, and Preparation			CRP9. Model integrity, ethical leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career paths aligned to personal goals.	
	Career Exploration		Е	CRP11. Use technology to enhance productivity.	
	Career Preparation			CRP12. Work productively in teams while using cultural global competence.	
	Interdisciplinary Connections				

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- ____Recognize one's own feelings and thoughts
- ____Recognize the impact of one's feelings and thoughts on one's own behavior
- ____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
 - <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u> Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

<u>x</u> Develop, implement and model effective problem solving and critical thinking skills

- Identify the consequences associated with one's action in order to make constructive choices
- _____Evaluate personal, ethical, safety and civic impact of decisions

- _____Ēstablish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure
- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 9	Count Numbers to 20
Suggested Time Frame	13 days / March

topic 9 continues the counting sequence with a focus on numbers 11 to 20. It highlights the principles necessary for accurate counting as well as a variety of representations including numeral writing.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.A.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).
- K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality.
- K.CC.B.4.c Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.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.

Essential Questions:

• How can numbers to 20 be counted, read, written, and picture to tell how many?

Enduring Understandings:

Students will understand that...

- There's a unique symbol that goes with each number word.
- You use the count sequence to count from any number within 20.
- Numbers become greater when you count on.
- Counting tells how many are in a set, regardless of their Arrangement or the order in which they were counted.
- The last number said when counting a set is the total.
- Counting is cumulative.
- Good math thinkers know how to think about words and numbers to solve problems.

Skills:

Students will be able to ...

- Count and write the numbers 11 and 12.
- Count and write the numbers 13, 14, and 15.
- Count and write the number 16 and 17.
- Count and write the numbers 18, 19, and 20.

- •
- •
- Count forward from any number to a number within 20. Count to find how many are in a group. Use reasoning to count and write numbers to the number 20. •

Topic Vocabulary		
Key Vocabulary:	 Eleven Twelve Thirteen Fourteen Fifteen Sixteen Seventeen 	
	 Eighteen Nineteen Twenty Row 	

Assessment Evidence				
Formative Assessment(s) and Evidence of	Summative Assessment(s) and			
Learning:	Performance Task(s):			
Assessment Check-In	• End of Topic Assessment			
Informal Observations	Benchmark Assessments			
Convince Me! Practice Questions	• Pick a Project			
Guided Practice Problems	Student Work Products			
Independent Practice Problems				
Problem Solving Problems				
Quick Check Problems				
• Games				
Questioning				
-				

	Learning Plan	
	Suggested Learning Activities	8
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 		
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandin Build Mathematical Literacy p Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages bages n lists below	
	Math Contors and Camos	
Materials: 2 - color counters (te 11-20 (teaching tool 4) connecti	aching tool 6), number cards 0-10	(teaching tool 3), number cards e 10- frame (teaching tool 23)
 Intervention Activities Make It, Trace It, Say It 9-1 Cotton Ball Numbers 9-2 Sandy Seek and Find 9-3 Let Me Read My Number Book 9-4 Count On 9-5 Berry Picking 9-6 How Many Counters? 9-7 	 Technology Center Www.SavvasRealize.com Fluency Add and Subtract within 5 math game 9-5 Save the Word: Grade K Topics 1-8 math game 9-7 Math Tools (use for lessons without specific Technology Center activity from list above) 	Activity Center • Shelters 9-3 • Big Birds 9-4 • Humans 9-6 • Rain Forest Frogs 9-7 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. • How Much Gum? • Go Bowling! • Planning a Eich Tark

	In this unit plan, the following 21st Century Life and Careers skills are addressed:					
	Check ALL that apply –		Indica	te whether these skills are:		
			•	E – encouraged		
	21 st Century Themes			T – taught		
			•	A – assessed		
				Career Ready Practices		
9.1	Personal Financial Literacy		E	CRP1. Act as a responsible and		
				contributing citizen and employee.		
	Income and Careers		TA	CRP2. Apply appropriate academic		
				and technical skills.		
Х	Money Management		Т	CRP3. Attend to personal health and		
				financial well-being.		
	Credit and Debt Management		ETA	CRP4. Communicate clearly and		
				effectively and with reason.		
	Planning, Saving, and Investing			CRP5. Consider the environmental,		
				social and economic impacts of		
				decisions.		
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and		
				innovation.		
	Civic Financial Responsibility			CRP7. Employ valid and reliable		
				research strategies.		
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to		
				make sense of problems and persevere		
				in solving them.		
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical		
	and Preparation			leadership and effective management.		
X	Career Awareness			CRP10. Plan education and career		
				paths aligned to personal goals.		
	Career Exploration		E	CRP11. Use technology to enhance		
				productivity.		
	Career Preparation			CRP12. Work productively in teams		
		<u> </u>		while using cultural global competence.		
	Interdisciplingry Connections					

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

K-ESS3-1.Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

Technology Integration

<u>x</u>8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- _____Recognize one's own feelings and thoughts
- Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations
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Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u> Recognize and identify the thoughts, feelings, and perspectives of others
- _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

- Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 10	Compose and Decompose Numbers 11 to 19
Suggested Time Frame	10 days / April

Topic 10 builds a foundation for understanding place value by focusing on the composition and decomposition of numbers 11 to 19 into one group of 10 ones and some further ones. The operations of composition and decomposition are visualized with objects, drawings, and equations.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.B.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.
- K.NBT.A.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.

Essential Questions:

How can composing and decomposing numbers from 11 to 19 into tens and ones and some further ones help you understand place value?

Enduring Understandings:

Students will understand that...

- Numbers from 11-19 can be represented as the sum of 10 and some more.
- The numbers 11, 12, and 13 can be decomposed as the sum of 10 and some ones.
- The numbers 14, 15, and 16 can be decomposed as the sum of 10 and some ones.
- The number 17, 18, and 19 can be decomposed as the sum of 10 and some ones.
- Good math thinkers look for patterns in math to help solve problems.

Skills:

Students will be able to...

- Use drawings and equations to make the numbers 11, 12, and 13.
- Make the numbers 14, 15, and 16.
- Make the number 17, 18, and 19.
- Find parts of the number 11, 12, and 13 one part is 10.
- Find parts of the numbers 14, 15, and 16 when one part is 10.
- Find parts of the numbers 17, 18, and 1911 part is 10.
- Use patterns to make and find the parts of numbers to 19.

Topic Vocabulary			
Key Vocabulary:	• How many more?		

Assessme	nt Evidence
Formative Assessment(s) and Evidence of	Summative Assessment(s) and
Learning:	Performance Task(s):
Assessment Check-In	• End of Topic Assessment
Informal Observations	Benchmark Assessments
Convince Me! Practice Questions	• Pick a Project
Guided Practice Problems	Student Work Products
Independent Practice Problems	
Problem Solving Problems	
Quick Check Problems	
• Games	
Questioning	

	L	
	Suggested Learning Activities	8
 Topic Opener Activity Pick a Project 3-Act Math 		
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandin Build Mathematical Literacy p Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below	
	Math Centers and Games	
Materials: 2-color counters (tea frame (teaching tool 23), crayons	ching tool 6), connecting cubes (1	teaching tool 8), double 10-
 Intervention Activities Making 11, 12, and 13 10-1 Making 14, 15, and 16 10-2 Making 17, 18, and 19 10-3 Different Objects 10-4 Break It Apart 10-5 Equations with 11 to 19 10-6 Hundred Chart Pattern 10-7 	 Technology Center www.SavvasRealize.com Fluency Add and Subtract within 5 math game 10-7 Math Tools (use for lessons without specific Technology Center activity from list above) 	 Activity Center Shelter from Sunlight 10-1 Elephant Families 10-2 Animal Groups 10-3 Sunlight and Shelter 10-4 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. Cozy Camp Nice Mice Sticker Books Great Granola

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
	Check ALL that apply –		Indica	te whether these skills are:	
	• E – encouraged			E – encouraged	
21 st Century Themes			•	T – taught	
			•	A – assessed	
				Career Ready Practices	
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and	
				contributing citizen and employee.	
	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
Х	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CRP12. Work productively in teams	
				while using cultural global competence.	
	Interdisciplinary Connections				

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

K-PS3-1.Make observations to determine the effect of sunlight on Earth's surface

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

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- ____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
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- <u>x</u> Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
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- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

<u>x</u> Develop, implement and model effective problem solving and critical thinking skills

- Identify the consequences associated with one's action in order to make constructive choices
- _____Evaluate personal, ethical, safety and civic impact of decisions

- _____Ēstablish and maintain healthy relationships
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- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 11	Count Numbers to 100
Suggested Time Frame	10 days/April

Overview/ Rationale of Unit Topic 11 concludes the development of the count sequence in kindergarten. Students counted to 5, 10, and then 20 in topics 1, 3, and 9. This topic focuses on extending the number names and counting to 100. Students learn about verbal and written patterns in the counting sequence, and they count by ones and by tens, beginning from any number. **Desired Results Established Goals:** New Jersey Student Learning Standards for Mathematics (NJSLS) K.CC.A.1 Count to 100 by ones and by tens. K.CC.A.2 Count forward beginning from a given number within the known sequence • (instead of having to begin at 1). **Essential Questions:** How can numbers to 100 be counted using a hundred chart? Enduring Understandings: Students will understand that... Counting patterns can be seen on a hundred chart in both the rows and the columns. Some patterns can also be heard when counting aloud. Decade numbers such as 10, 20, dot dot dot 100 are used to name groups of 10. • You can count by tens to 100 by counting only the decade numbers. Numbers are • counted and written in a specific sequence on a hundred chart. Good math thinkers look for patterns in math to help solve problems. • Skills:

Students will be able to ...

- Use patterns to count to 30.
- Use patterns to count to 50. •
- Skip count by 10s to 100. •
- Count forward from any number to 100 by ones.
- See patterns when counting.

Topic Vocabulary		
Key Vocabulary:	ColumnOnes	
	PatternTens	

• Decade
Hundred chart

Assessment Evidence			
Formative Assessment(s) and Evidence of	Summative Assessment(s) and		
Learning:	Performance Task(s):		
Assessment Check-In	End of Topic Assessment		
Informal Observations	Benchmark Assessments		
Convince Me! Practice Questions	• Pick a Project		
Guided Practice Problems	Student Work Products		
Independent Practice Problems			
Problem Solving Problems			
Quick Check Problems			
• Games			
Questioning			

	I ' DI			
Learning Plan				
	Suggested Learning Activities	S		
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 				
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandi Build Mathematical Literacy p Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below			
	Math Centers and Games			
Materials: 2-color counters (tea	ching tool 6), Hundred chart (tead	ching tool 31), crayons		
 Intervention Activities Listen To Me Count 11-1 Missing Numbers 11-2 Do You Have the Number? 11-3 Card Tricks 11-4 Number Riddles 11-5 	 Technology Center www.SavvasRealize.com Gobbling Globs Ones and Tens math game 11-4, 11-5 Math Tools (use for lessons without specific Technology Center activity from list above) 	 Activity Center Star Light, Star Bright 11-1 Bees 11-3 Ants 11-4 Groups of Stars 11-5 Pick a Project Projects should be worked on during lessons without other Activity Center option from list above. Lots of Legs! Numbers Dance Moonstone Mission 		

	In this unit plan, the following 21st Century Life and Careers skills are addressed:				
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21 st Century Themes			•	T – taught	
			•	A – assessed	
				Career Ready Practices	
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	Income and Careers		TA	CRP2. Apply appropriate academic	
				and technical skills.	
Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
				make sense of problems and persevere	
				in solving them.	
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical	
	and Preparation			leadership and effective management.	
X	Career Awareness			CRP10. Plan education and career	
				paths aligned to personal goals.	
	Career Exploration		E	CRP11. Use technology to enhance	
				productivity.	
	Career Preparation			CKP12. Work productively in teams	
	.	1.		while using cultural global competence.	
	Inferdiscu	nin	arv ('ni	nnections	

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

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

K-ESS3-1. Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

Technology Integration

<u>x</u>8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

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- Teacher Websites
- SMART board

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Self-Management

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Social Awareness

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Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
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- Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 12	Identify and Describe Shapes
Suggested Time Frame	11 days / May

Topic 12 formally introduces many geometric ideas by asking students to: (1) identify shapes as two-dimensional (flat) or three-dimensional solid, (2) name squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres regardless of orientation and size, and (3) use terms such as "above", "below", "beside", "next to", "in front of", and "behind" to describe the relative position of shapes in their environments.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.CC.A.1 Count to 100 by ones and by tens.
- K.G.A.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.
- K.G.A.2 Correctly name shapes regardless of their orientations or overall size.
- K.G.A.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
- K.G.B.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).
- K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Essential Questions:

How can two- and three dimensional shapes be identified and described?

Enduring Understandings:

Students will understand that...

- Objects have shape.
- Some objects, such as a sheet of paper or a photograph, are two dimensional, or flat, shapes.
- Some objects, such as a ball, can, box, or jar, are three-dimensional, or solid, shapes.
- A circle is round and does not have any corners (vertices).
- A triangle has three sides and three corners (vertices).
- Flat shapes called rectangles have four sides and four vertices that look the same.
- A rectangle looks like a door.
- Squares are special rectangles because their sides are all the same length.
- Six-sided flat shapes are called hexagons. These shapes can be found in objects made by people and in nature.

- Spheres, cylinders, cones, and cubes are solid figures. Many everyday objects closely approximate these figures.
- Some objects look like flat shapes or solid shapes.
- The positions of objects in relation to surrounding objects can be described using words such as above, below, beside, in front of, behind, and next to.
- Good math thinkers are careful about what they write and say, so their ideas about math are clear.

Skills:

Students will be able to ...

- Name shapes as flat or solid.
- Identify and describe circles and triangles.
- Identify and describe squares and other rectangles.
- Describe and identify hexagons.
- Describe and identify solid figures.
- Describe shapes in the environment.
- Describe positions of the shapes in the environment.

Topic Vocabulary		
Key Vocabulary:	 Sort Two-dimensional shape (flat) Three dimensional shape (solid) Circle Triangle Side Vertex/vertices (corner) Rectangle Square Hexagon Cube Cylinder Cone Sphere In front of Behind Next to Above Below Beside 	

Assessment Evidence			
Formative Assessment(s) and Evidence of	Summative Assessment(s) and		
Learning:	Performance Task(s):		
Assessment Check-In	End of Topic Assessment		
Informal Observations	Benchmark Assessments		
--	-----------------------		
Convince Me! Practice Questions	• Pick a Project		
Guided Practice Problems	Student Work Products		
Independent Practice Problems			
 Problem Solving Problems 			
Quick Check Problems			
• Games			
Questioning			

r · ni				
Learning Plan				
	Suggested Learning Activities	8		
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 				
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understanding Build Mathematical Literacy point Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below			
	Math Centers and Games			
Materials:	Math Centers and Games			
 Intervention Activities Concentration Game 12-1 Circle-and Triangle-Shaped Books 12-2 Shape Designs 12-3 What's in the Bag? 12-4 Match and Name 12-5 Finding Shapes in the Classroom 12-6 Charades 12-7 	 Technology Center www.SavvasRealize.com Fluency Add and Subtract within 5 math game 12-1 Gem Quest Add and Subtract Tens and Ones 12-4 Gobbling Globs Ones and Tens math game 12-6 Save the Word: Grade K Topics 1-11 12-7 Math Tools (use for lessons without specific Technology Center activity from list above) 	 <u>Activity Center</u> Where Does It Come From? 12-1 Shapes in the World 12-4 Objects in the Environment 12-6 Classroom Shapes 12-7 <u>Pick a Project</u> Projects should be worked on during lessons without other Activity Center option from list above. Dinosaur Puzzles Design and Build Shapes in Art Cookie Cutter Math 		

	In this unit plan, the following 21st Century Life and Careers skills are addressed:					
	Check ALL that apply –	neck ALL that apply – Indicate whether these skills are:				
			• E – encouraged			
	21 st Century Themes		• T – taught			
			• A – assessed			
			Career Ready Practices			
9.1	Personal Financial Literacy		E	CRP1. Act as a responsible and		
				contributing citizen and employee.		
	Income and Careers		TA	CRP2. Apply appropriate academic		
				and technical skills.		
Х	Money Management		Т	CRP3. Attend to personal health and		
				financial well-being.		
	Credit and Debt Management		ETA	CRP4. Communicate clearly and		
				effectively and with reason.		
	Planning, Saving, and Investing			CRP5. Consider the environmental,		
				social and economic impacts of		
				decisions.		
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and		
				innovation.		
	Civic Financial Responsibility			CRP7. Employ valid and reliable		
				research strategies.		
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to		
				make sense of problems and persevere		
				in solving them.		
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical		
	and Preparation			leadership and effective management.		
X	Career Awareness			CRP10. Plan education and career		
				paths aligned to personal goals.		
	Career Exploration		E	CRP11. Use technology to enhance		
				productivity.		
	Career Preparation			CRP12. Work productively in teams		
				while using cultural global competence.		
	Interdisciplinary Connections					

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object

K-PS2-2. Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- ___Recognize one's own feelings and thoughts
- Recognize the impact of one's feelings and thoughts on one's own behavior

Recognize one's personal traits, strengths and limitations

_____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u>_Recognize the skills needed to establish and achieve personal and educational goals
 - <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- <u>x</u>_Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds

_____Demonstrate an understanding of the need for mutual respect when viewpoints

differ

____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- _____Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 13	Analyze, Compare and Create Shapes
Suggested Time Frame	11 days / May

Overview/ Rationale of Unit

Topic 13 deepens geometric understandings of 2- and 3-dimensional shapes. Students analyze and compare attributes of shapes shown in different sizes and orientations. Students build shapes using concrete materials, and use them to draw other shapes. Students also compose simple shapes to form larger shapes.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.G.B.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).
- K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- K.G.B.6 Compose simple shapes to form larger shapes.
- K.G.A.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.
- K.G.A.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").
- K.OA.A.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.
- K.CC.B.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.
- K.CC.C.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.

Essential Questions:

How can solid figures be named, described, compared, and composed?

Enduring Understandings:

Students will understand that...

- 2D shapes can be sorted and identified by their attributes
- Objects shaped like spheres, cones, and cylinders can roll.
- Objects shaped like cubes, cones, and cylinders can stack and slide.
- The flat surfaces of many solid figures have specific 2D shapes.

- Good math thinkers no what the problem is about they have a plan to solve it. They keep trying if they get stuck.
- You can make 2D shapes by putting together two or more 2D shapes
- When building a given 2D shape, the shape must exhibit all of the attributes of the shape.
- 3D shapes can be combined to make other 3D shapes.

Skills:

Students will be able to ...

- Analyze and compare 2D shapes.
- Analyze and compare 3D shapes.
- Analyze and compare 2D and 3D shapes.
- Makes sense of problems about shapes.
- Make 2D shapes using other 2D shapes.
- Build 2D shapes that match given attributes.
- Use materials to build 3D shapes.

Topic Vocabulary		
Key Vocabulary:	 Roll Stack Slide Flat surface 	

Assessment Evidence		
Formative Assessment(s) and Evidence of	Summative Assessment(s) and	
Learning:	Performance Task(s):	
Assessment Check-In	End of Topic Assessment	
Informal Observations	Benchmark Assessments	
Convince Me! Practice Questions	• Pick a Project	
Guided Practice Problems	Student Work Products	
Independent Practice Problems		
 Problem Solving Problems 		
Quick Check Problems		
• Games		
Questioning		

	Learning Dian		
	Suggested Learning Activities	Š	
For Each Topic			
Iopic Opener Activity Dials a Drainest			
• Pick a Project			
• 3-Act Math			
For each lesson			
Daily Review			
• Solve and Share			
• Visual Learning Bridge			
Convince Me			
Guided Practice			
• Independent Practice			
Problem Solving			
Quick Check			
• Reteach to Build Understanding	ng pages		
• Build Mathematical Literacy	bages		
• Enrichment pages	-		
Additional Practice Pages			
• Math Centers and Games from	n lists below		
	Math Centers and Games		
Materials: 3D shapes and real-li	fe objects (teaching tool 39), attri	bute blocks (teaching Tool 46),	
pattern blocks (teaching tool 41),	building with solid figures (teach	ning tool 40), crayons,	
construction paper right triangles,	yarn, string, pipe cleaners, straws,	scissors, tape, small cubes, clay,	
craft sticks, paper			
Intervention Activities	<u>Technology Center</u>	<u>Activity Center</u>	
• Shape Sorter 13-1	www.SavvasRealize.com	• Shapes 13-1	
• Roll, Stack and Slide	• Fluency Add and	• Roll, Stack, Slide 13-2	
13-2	Subtract with 5 math	• Go Figure 13-3	
• Flat Surfaces and	game 13-6	• Make A Shape 13-6	
Not-Flat Surfaces 13-3	• Save the Word: Grade K	•	
• Solid Sorter 13-4	Topics 1-11 13-7		
• Cover Up 13-5	• Math Tools (use for	Pick a Project	

Math Tools (use for • lessons without specific Technology Center activity from list above)

13-7

Shape Riddles 13-6
Cut and Paste Buildings

Projects should be worked on

during lessons without other

• Kitchen Shapes Shape Puppets

Quilt Time

above.

• •

Activity Center option from list

	In this unit plan, the following 21st Century Life and Careers skills are addressed:					
	Check ALL that apply –	Indicate whether these skills are:				
			• E – encouraged			
	21 st Century Themes		• T – taught			
			• A – assessed			
			Career Ready Practices			
9.1	Personal Financial Literacy		Е	CRP1. Act as a responsible and		
				contributing citizen and employee.		
	Income and Careers		TA	CRP2. Apply appropriate academic		
				and technical skills.		
Х	Money Management		Т	CRP3. Attend to personal health and		
				financial well-being.		
	Credit and Debt Management		ETA	CRP4. Communicate clearly and		
				effectively and with reason.		
	Planning, Saving, and Investing			CRP5. Consider the environmental,		
				social and economic impacts of		
				decisions.		
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and		
				innovation.		
	Civic Financial Responsibility			CRP7. Employ valid and reliable		
				research strategies.		
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to		
				make sense of problems and persevere		
				in solving them.		
9.2	Career Awareness, Exploration,			CRP9. Model integrity, ethical		
	and Preparation			leadership and effective management.		
X	Career Awareness			CRP10. Plan education and career		
				paths aligned to personal goals.		
	Career Exploration		E	CRP11. Use technology to enhance		
				productivity.		
	Career Preparation			CRP12. Work productively in teams		
				while using cultural global competence.		
	Interdisciplinary Connections					

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

K-PS2-1. Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object

Technology Integration

x_8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

The following social and emotional competencies are integrated in this curriculum document:

Self-Awareness

- Recognize one's own feelings and thoughts
- _____Recognize the impact of one's feelings and thoughts on one's own behavior
- _____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} _Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
- <u>x</u> Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one's goals

Social Awareness

- \underline{x} Recognize and identify the thoughts, feelings, and perspectives of others
 - _____Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds
- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- _____Establish and maintain healthy relationships
- _____Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- _____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- Identify who, when, where, or how to seek help for oneself or others when needed

Topic 14	Describe and Compare Measurable Attributes
Suggested Time Frame	9 days/ June

Overview/ Rationale of Unit

topic 14 introduces measurement by teaching students that objects can be directly compared by length, height, capacity, or weight. Students learn that objects can be described by measurable attributes and that some objects can be described by more than one measurable attribute. They describe the length or height of objects as a whole number of units.

Desired Results

Established Goals:

New Jersey Student Learning Standards for Mathematics (NJSLS)

- K.MD.A.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- K.MD.A.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.

Essential Questions:

How can objects be described and compared by length, height, capacity, and weight?

Enduring Understandings:

Students will understand that...

- When you compare by length or height, you are thinking about how long or tall objects are.
- When you compare by capacity, you are thinking about how much objects hold.
- When you compare by weight, you are thinking about how heavy objects are.
- Objects have measurable attributes that can be recognized and described.
- Measurement is a process of comparing a unit to the object being measured.
- The length of any object can be used as a measurement unit for length.
- Good math thinkers are careful about what they write and say, so their ideas about math are clear.

Skills:

Students will be able to...

- Describe and compare objects by length and height.
- Describe and compare objects by capacity.
- Describe and compare objects by weight.
- Use measurable attributes to describe different objects.
- Use small objects to measure length.
- Solve math problems about objects with measurable attributes by using Precision.

Topic Vocabulary		
Key Vocabulary:	• Height	
	• Length	
	• Longer	
	• Shorter	
	• Taller	
	Capacity	
	• Heavier	
	• Lighter	
	• Weighs	
	• Weight	
	Balance scale	
	• Attribute	

Assessment Evidence		
Formative Assessment(s) and Evidence of	Summative Assessment(s) and	
Learning:	Performance Task(s):	
Assessment Check-In	• End of Topic Assessment	
Informal Observations	Benchmark Assessments	
Convince Me! Practice Questions	• Pick a Project	
Guided Practice Problems	Student Work Products	
Independent Practice Problems		
Problem Solving Problems		
Quick Check Problems		
• Games		
Questioning		

Learning Plan				
	Suggested Learning Activities	5		
 For Each Topic Topic Opener Activity Pick a Project 3-Act Math 				
 For each lesson Daily Review Solve and Share Visual Learning Bridge Convince Me Guided Practice Independent Practice Problem Solving Quick Check Reteach to Build Understandi Build Mathematical Literacy p Enrichment pages Additional Practice Pages Math Centers and Games from 	ng pages pages n lists below			
	Math Contour and Comes			
Matarials	Math Centers and Games			
Intervention Activities Match and Name 14-1 Tea Time 14-2 Surprise Bag 14-3 Step by Step 14-4 What Can I Measure 14-5 Which Train? 14-6	 Technology Center www.SavvasRealize.com Fluency Add and Subtract Within 5 math game 14-2 Save the Word Grade K Topics 1-14 14-5, 14-6 Math Tools (use for lessons without specific Technology Center activity from list above) 	Activity Center• Giant Rocks 14-1• Rocky Weights 14-3• Tools to Measure 14-4• Compare Attributes of Animals 14-5Pick a ProjectProjects should be worked on during lessons without other Activity Center option from list above.• See How I Have Grown • Super Straws • Fancy Footprints • Big and Small Mammals		

In this unit plan, the following 21st Century Life and Careers skills are addressed:					
Check ALL that apply –			Indicate whether these skills are:		
			•	E – encouraged	
21 st Century Themes			•	T – taught	
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			Career Ready Practices		
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Х	Money Management		Т	CRP3. Attend to personal health and	
				financial well-being.	
	Credit and Debt Management		ETA	CRP4. Communicate clearly and	
				effectively and with reason.	
	Planning, Saving, and Investing			CRP5. Consider the environmental,	
				social and economic impacts of	
				decisions.	
	Becoming a Critical Consumer			CRP6. Demonstrate creativity and	
				innovation.	
	Civic Financial Responsibility			CRP7. Employ valid and reliable	
				research strategies.	
	Insuring and Protecting		ETA	CRP8. Utilize critical thinking to	
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	and Preparation			leadership and effective management.	
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		<u> </u>		while using cultural global competence.	
Interdisciplinary Connections					

Other standards covered:

NJ Learning Standards for English Language Arts: NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJ Learning Standards for Science:

K-2-ETS1-1. Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

K-PS3-2. Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.*

Technology Integration

_x__8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

- Student Websites
- Teacher Websites
- SMART board

8.2 Technology Integration, Engineering, Design and Computational Thinking - Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

INTEGRATED SOCIAL AND EMOTIONAL LEARNING COMPETENCIES

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- _____Recognize one's personal traits, strengths and limitations
- _____Recognize the importance of self-confidence in handling daily tasks and challenges

Self-Management

 \underline{x} Understand and practice strategies for managing one's own emotions, thoughts and behaviors

- <u>x</u> Recognize the skills needed to establish and achieve personal and educational goals
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Social Awareness

- <u>x</u>_Recognize and identify the thoughts, feelings, and perspectives of others
 - Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds

- _____Demonstrate an understanding of the need for mutual respect when viewpoints differ
- _____Demonstrate an awareness of the expectations for social interactions in a variety of setting

Responsible Decision Making

- <u>x</u> Develop, implement and model effective problem solving and critical thinking skills
- Identify the consequences associated with one's action in order to make constructive choices
- _____Evaluate personal, ethical, safety and civic impact of decisions

Relationship Skills

- Establish and maintain healthy relationships
- Utilize positive communication and social skills to interact effectively with others
- _____Identify ways to resist inappropriate social pressure
- ____x_Demonstrate the ability to present and resolve interpersonal conflicts in constructive ways
- Identify who, when, where, or how to seek help for oneself or others when needed

ACCOMMODATIONS AND MODIFICATIONS

Below please find a list of suggestions for accommodations and modifications to meet the diverse needs of our students. Teachers should consider this a resource and understand that they are not limited to the recommendations included below.

An **accommodation** *changes* HOW *a student learns*; the change needed does not alter the grade-level standard. A **modification** *changes* WHAT *a student learns*; the change alters the grade-level expectation.

Special Education and 504 Plans

All modifications and accommodations must be specific to each individual child's IEP (Individualized Educational Plan) or 504 Plan.

- Pre-teach or preview vocabulary
- Repeat or reword directions
- Have students repeat directions
- Use of small group instruction
- Pair visual prompts with verbal presentations
- Ask students to restate information, directions, and assignments
- Repetition and time for additional practice
- Model skills/techniques to be mastered
- Extended time to complete task/assignment/work
- Provide a copy of class notes
- Strategic seating (with a purpose eg. less distraction)
- Flexible seating
- Repetition and additional practice
- Use of manipulatives
- Use of assistive technology (as appropriate)
- Assign a peer buddy
- Emphasize key words or critical information by highlighting
- Use of graphic organizers
- Scaffold with prompts for sentence starters
- Check for understanding with more frequency
- Provide oral reminders and check student work during independent practice
- Chunk the assignment broken up into smaller units, work submitted in phases
- Encourage student to proofread assignments and tests
- Provide regular home/school communication
- Teacher checks student planner
- Provide student with clear expectations in writing and grading criteria for assignments (rubrics)

Testing Accommodations:

Students should receive all testing accommodations for Benchmark assessments that they receive for State testing.

- Setting: Alternate setting for assessments, small groups, screens to block distractions
- Presentation: large print, test readers, use of audio, fewer questions on each page

- Response: answer verbally, use large block answer sheet, speech-to-text dictation, accept short answers
- Allow for retakes
- Provide study guides
- Use of reference aids such as glossary, multiplication tables, calculator
- Choice of test format (multiple-choice, essay, true-false)
- Alternate ways to evaluate (projects or oral presentations instead of written tests)
- Open-book or open-note tests

English Language Learners:

All modifications and accommodations should be specific to each individual child's LEP level as determined by the WIDA screening or ACCESS, utilizing the WIDA Can Do Descriptors.

- Pre-teach or preview vocabulary
- Repeat or reword directions
- Have students repeat directions
- Use of small group instruction
- Scaffold language based on their Can Do Descriptors
- Alter materials and requirements according to Can Do Descriptors
- Adjust number of paragraphs or length of writing according to their Can Do Descriptor
- TPR (Total Physical Response-Sheltered Instruction strategy) Demonstrate concepts through multi sensory forms such as with body language, intonation
- Pair visual prompts with verbal presentations
- Repetition and additional practice
- Model skills and techniques to be mastered
- Native Language translation (peer, assistive technology, bilingual dictionary)
- Emphasize key words or critical information by highlighting
- Use of graphic organizers
- Scaffold with prompts for sentence starters
- Check for understanding with more frequency
- Use of self-assessment rubrics
- Increase one-on-one conferencing; frequent check ins
- Use study guide to organize materials
- Make vocabulary words available in a student created vocabulary notebook, vocabulary bank, Word Wall, or vocabulary ring
- Extended time
- Select text complexity and tiered vocabulary according to Can Do Descriptors
- Projects completed individually or with partners
- Use online dictionary that includes images for words:

http://visual.merriamwebster.com/

• Use online translator to assist students with pronunciation: <u>http://www.reverso.net/text_translation.aspx?lang=EN</u>.

Students at Risk of Failure:

- Use of self-assessment rubrics for check-in
- Pair visual prompts with verbal presentations
- Ask students to restate information and/or directions

- Opportunity for repetition and additional practice
- Model skills/techniques to be mastered
- Extended time
- Provide copy of class notes
- Strategic seating with a purpose
- Provide students opportunity to make corrections and/or explain their answers
- Support organizational skills
- Check daily planner
- Encourage student to proofread work
- Assign a peer buddy
- Build on students' strengths based on Multiple Intelligences: Linguistic (verbal); Logical (reasoning); Musical/Rhythmic; Intrapersonal Intelligence (understanding of self); Visual Spatial Intelligence; Interpersonal Intelligence (the ability to interact with others effectively); Kinesthetic (bodily); Naturalist Intelligence; and Learning Styles: Visual; Auditory; Tactile; Kinesthetic; Verbal

High Achieving:

Extension Activities

- Allow for student choice from a menu of differentiated outcomes; choices grouped by complexity of thinking skills; variety of options enable students to work in the mode that most interests them
- Allow students to pursue independent projects based on their individual interests
- Provide enrichment activities that include more complex material
- Allow opportunities for peer collaboration and team-teaching
- Set individual goals
- Conduct research and provide presentation of appropriate topics
- Provide students opportunity to design surveys to generate and analyze data to be used in discussion
- Allow students to move through the assignment at their own pace (as appropriate)

Strategies to Differentiate to Meet the Needs of a Diverse Learning Population

- Vocabulary Sorts-students engage with the vocabulary word by sorting into groups of similar/different rather than memorizing definitions
- Provide "Realia" (real life objects to relate to the five senses) and ask questions relating to the senses
- Role Play-students create or participate in role playing situations or Reader's Theater
- Moving Circle-an inside and outside circle partner and discuss, circles moves to new partner (Refer to Kagan Differentiated Strategies)
- Brainstorm Carousel-Large Post Its around the room, group moves in a carousel to music. Group discusses topic and responses on paper. Groups rotate twice to see comments of others. (Refer to Kagan Differentiated Strategies)
- Gallery Walk-Objects, books, or student work is displayed. Students examine artifacts and rotate.
- Chunking-chunk reading, tests, questions, homework, etc to focus on particular elements.
- Think Pair Share Write

- Think Talk Write
- Think Pair Share
- Note-taking -can be done through words, pictures, phrases, and sentences depending on level
- KWL (Know, Want to Know, Learned)/KWHL(Know, What to Know, How Will I Learn, learned)/KWLS (Know, Want to Know, Learned, Still Want to Know) /KWLQ (Know, What to Know, Learned, Questions I Still Have) Charts
- Corners Cooperative Learning Strategy:

http://cooperativelearningstrategies.pbworks.com/w/page/28234420/Corners.

- Circle Map strategy- place the main topic in a small circle and add student ideas in a bigger circle around the topic. Students may use their native language with peers to brainstorm.
- Flexible grouping -as a whole class, a small group, or with a partner, temporary groups are created:

http://www.teachhub.com/flexible-grouping-differentiated-instruction-strategy.

• Jigsaw Activities -cooperative learning in a group, each group member is responsible for becoming an "expert" on one section of the assigned material and then "teaching" it to the other members of the team: <u>http://www.adlit.org/strategies/22371/</u>.

