Ocean Academy Charter School
Curriculum Guide
Kindergarten - Mathematics

Original Adoption:	August 2025
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OCEAN ACADEMY CHARTER SCHOOL **Mathematics Curriculum**	
Content Area: Mathematics	
Course Title: Mathematics	
Grade Level: Kindergarten	
Unit Title	**Pacing Guide in Days**
Trimester 1	
Unit 1: Position, Length, Height and Sorting	27 days
Unit 2: Numbers to 5, Shapes and Weight	22 days
Unit 3: Addition and Subtraction within 5 and Shapes *Continue in Trimester 2	11 days
Trimester 2:	
Unit 3: Addition and Subtraction within 5 and Shapes *Continued from Trimester 1	24 days
Unit 4: Numbers to 10 and Shapes	32 days
Unit 5: Numbers to 100 *Continue in Trimester 3	4 days
Trimester 3:	
Unit 5: Numbers to 100 *Continued from Trimester 2	21 days

Unit 6: Addition and Subtraction within 10	20 days
Unit 7: Teen Numbers and Shapes	19 days

OCEAN ACADEMY CHARTER SCHOOL Unit 1 Overview	
Content Area: Mathematics	
Unit Title: Position, Length, Height and Sorting (Trimester 1)	**Duration:** 27 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, students will explore foundational concepts related to the position, size, and grouping of objects. They will learn to describe where objects are located using words such as "above," "below," "next to," and "between." Through hands-on activities and guided exploration, students will practice placing objects in specific positions and using appropriate vocabulary to talk about those placements.

Students will also begin to develop skills in comparing objects by their attributes. They will describe and compare the length and height of two objects, identifying which is longer, shorter, taller, or smaller. These experiences will help deepen their understanding of measurable properties and strengthen their observational skills.

As part of their learning, students will engage in sorting activities where they group objects based on common characteristics such as color, size, shape, or texture. They will learn to explain the rules they use to create these groups and compare groups based on quantity. By counting how many objects are in each group, students will begin to recognize patterns and relationships among sets, laying the groundwork for more complex mathematical thinking.

To be successful in this unit, students should already have some basic understanding of objects and their attributes. They should be familiar with informal language used to describe size and able to compare objects using terms like "big" and "small." Students are expected to recognize simple attributes such as color and size, have a basic concept of long, short, and tall, and be able to count objects with one-to-one correspondence. Additionally, students should be able to rote count to at least 20.

By the end of this unit, students will have a stronger command of math vocabulary related to position, length, and height, as well as greater confidence in sorting and counting objects within groups. These skills form an essential part of early math learning and support further development in measurement and data.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training
This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills
This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard 8.1 Computer Science
Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

Standard 8.2 Design Thinking
Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

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Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

Diversity and Inclusion: C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

(1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;

(2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and

(3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

Asian Americans and Pacific Islanders (AAPI)

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

21st Century Themes and Skills

"Twenty-first century themes and skills" means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy."

Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
K.CC.A.1* A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count by ones and by tens.
K.M.A.1 A. Describe and compare measurable attributes.	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of	Concept(s):

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	others. MP.8 Look for and express regularity in repeated reasoning.	➢ Measurable attributes: length, weight, size (volume) ➢ A single object can have more than one measurable attribute. Students are able to: ➢ identify measurable attributes. ➢ describe the measurable attributes of multiple objects. ➢ describe multiple measurable attributes of a single object. Learning Goal: Describe measurable attributes of multiple objects and describe several measurable attributes of a single object.
K.M.A.2 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	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.7 Look for and make use of structure.	Concept(s): ➢ When comparing objects by measuring, each object must have the same starting point. ➢ Moving an object does not change its measure. Students are able to:

of two children and describe one child as taller/shorter.	MP.8 Look for and express regularity in repeated reasoning.	➢ directly compare and describe two objects with measurable attribute in common using *more of* or *less of*. Learning Goal: Directly compare two objects with a measurable attribute in common; use *more of* or *less of* to compare the objects.
K.DL.A.1 B. Classify objects and count the number of objects in each category. 3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	MP.1 Make sense of problems and persevere in solving them. MP.3 Construct viable arguments and critique the reasoning of others. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Objects can be sorted based on their properties. Students will be able to: ➢ sort objects into categories Learning Goal: Classify objects into given categories and count the objects in each category (up to 10 objects)
K.G.A.1 A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): ➢ Shapes have names. ➢ Positional words (above, below, besides, in front of, behind, next to) Students will be able to:

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.		➢ name shapes in order to describe objects in the environment. ➢ use terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to* in order to describe relative positions of objects. Learning Goal: 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

New Jersey Student Learning Standards: Interdisciplinary Connections
https://www.nj.gov/education/cccs

L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.

A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).

B. Continue a conversation through multiple exchanges.

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New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills	
Core Ideas	**Performance Expectations (Identified with Standard Number and statement)**
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community. 9.1.2.CR.2: List ways to give back, including making donations, volunteering, and starting a business.

New Jersey Student Learning Standards: Computer Science and Design Thinking	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**

Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Use precise positional language such as *above, behind, below, beside, in front of,* and *next to* to describe the location of objects.
- Show and place objects in specific stated positions to demonstrate understanding of positional relationships.
- Describe the physical attributes of objects and use these attributes to compare one object to another.
- Directly compare the length or height of two objects using hands-on tools or visuals.
- Use measurement language such as *long/longer, short/shorter, tall/taller* to accurately describe and compare the size of objects.
- Recognize and describe a variety of object attributes, such as color, size, and shape.
- Group and sort objects that share a common attribute from a larger collection.
- Describe the rule used to sort objects and try to identify the sorting rules used by others.
- Count the number of objects in each sorted group and compare the totals using terms like *more* and *less*.
- Organize sorted groups based on the number of items in each category.

Language Objectives:

- Use vocabulary such as *above, behind, below, beside, in front of,* and *next to* to describe where objects are located.
- Move and position objects to match described locations and represent these positions using drawings, pictures, or manipulatives.
- Demonstrate active listening skills by using body language and repeating or responding to what the speaker said.
- Use words like *long, short,* and *tall* to describe objects, and compare them using terms like *longer, shorter,* and *taller.*

- Identify or point to the object that is longer, shorter, or taller when comparing two items.
- Draw objects that are longer, shorter, or taller than another drawn object to show understanding.
- Describe similarities and differences between objects using sentence frames such as "This is ___because…" or "They are the same because…"
- Describe an object's attributes, such as shape, size, or color, and match or circle other objects with the same attribute.
- Follow spoken directions to sort objects and explain how the groupings were made.
- Identify and explain sorting rules using complete sentences and descriptive vocabulary.
- Count aloud the number of objects in a group and compare totals to other groups using comparison language.
- Share ideas and problem-solving strategies with others using clear sentences and sentence frames to support communication.

Unit Enduring Understandings:
Students will know…

- Measurement helps us compare how big, long, or full something is.
- We use tools and words to measure and describe objects.
- We can sort things into groups (categories) when they are alike in some way. For example, we can group objects by size, shape, or color.
- We use position words (like above, below, next to) to describe where things are.
- To compare two objects fairly, we need to line up one end of each object.

Unit Essential Questions:

- How do we sort things into groups?
- How can we group objects that are the same in some way?
- What are some ways we can measure things?
- How can we tell which object is longer, shorter, or heavier?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities
  Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world

Explore--Students draw on prior knowledge and make connections to new concepts
Develop--Students develop strategies and understanding through problem solving and discourse
Refine--Students deepen their understanding and strengthen their skills

- What Happens In the Classroom
  1. Students make sense of problems and attempt their own representations and solution strategies.
  2. Hints are provided to students in the form of questions to consider as they solve each problem
  3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  4. Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  5. The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine
Try
Make sense of the problem
Solve and support your thinking
Discuss
Share your thinking with a partner
Compare Strategies
Connect
Make connections and reflect on what you have learned
Apply your thinking to a new problem

Resources:
Student Worktext
Ready Classroom Teacher Toolkit
- Instruction and Practice
- Editable Powerpoint
- Interactive Tutorial
- Student Worktext
- Discourse Cards
- Digital Manipulatives
- Math Journal
- Lesson Vocabulary Activities
- Unit Game

- ➢ Exit Ticket

Small Group Differentiation
Prepare
- ○ Ready Prerequisite Lessons

Reteach
- ○ Tools for Instruction

Reinforce
- ○ Differentiated Math Center Activities

Extend
- ● Enrichment Activities

Independent Learning
- ➢ IReady online personalized instruction
- ➢ Fluency and skills practice
- ➢ Interactive Tutorials (Lesson, Prerequisite, or Extend)
- ➢ Math Center Activities
- ➢ Additional Practice Activities
- ➢ Online Fluency Games

Evidence of Student Learning

Formative Assessments:
- ➢ Teacher Observation
- ➢ Games
- ➢ Performance Assessment
- ➢ Anecdotal Records
- ➢ Exit Slips
- ➢ Oral Assessment/Conferencing
- ➢ Portfolios/Journals
- ➢ Daily Classwork
- ➢ Pre-Assessment

Summative Assessments
- ➢ Unit Tests
- ➢ Quizzes
- ➢ Writing Samples

Benchmark Assessments:
- ➢ Unit Assessments
- ➢ Benchmark Assessments
- ➢ Aimsweb Early Numeracy Assessment

Alternative Assessments
- ➢ Portfolio review
- ➢ Anecdotal Notes

Performance Tasks:
- ➢ Project Based Learning Activity
- ➢ Math In Action

➢ Performance Task

Suggested Options for Differentiation and Modifications

Special Education

- ➢ Follow all IEP modifications.
- ➢ Use visuals, manipulatives, and graphic supports.
- ➢ Pre-teach and review key vocabulary.
- ➢ Provide summaries, word banks, and visual glossaries.
- ➢ Use small-group instruction.
- ➢ Offer peer tutoring or a "buddy."
- ➢ Read aloud directions; use choral reading, chants, or songs when appropriate.
- ➢ Provide preferential seating.
- ➢ Allow extra time on tasks.
- ➢ Accept oral or dictated responses.
- ➢ Shorten or modify assignments/questions.
- ➢ Use large-print, Braille, or digital text with audio options.
- ➢ Provide scribes or augmentative communication systems as needed.

Students with 504 Plans

- ➢ Follow the 504 plan.
- ➢ Provide extra time on assignments/tests.
- ➢ Offer small-group settings.
- ➢ Accept oral or dictated responses.
- ➢ Use large-print, Braille, or digital text.
- ➢ Provide a scribe or communication device if needed.

Students at Risk of School Failure

- ➢ Use visuals and hands-on supports.
- ➢ Pre-teach key vocabulary and concepts.
- ➢ Provide small-group instruction.
- ➢ Read aloud directions and model steps.
- ➢ Use peer tutoring or a supportive "buddy."
- ➢ Offer chants, songs, and repetition for reinforcement.
- ➢ Provide preferential seating.

Gifted and Talented

- Ask open-ended and higher-order questions.
- Encourage problem-solving, discovery, and creativity.
- Provide extension activities based on interests.
- Offer advanced or leveled materials.
- Use flexible grouping by ability or interest.
- Include enrichment centers, puzzles, or concept maps.
- Provide choice in assignments.
- Incorporate problem-solving simulations.
- Debrief to reflect on learning.

Multilingual Learners

- Collaborate with ESL/MLL specialists.
- Provide small-group instruction.
- Pre-teach vocabulary; label classroom items.
- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
- Provide sentence and speaking frames.
- Allow oral responses and extended time.
- Use audio books or recorded directions.

Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
- Provide alternative assignments if needed.
- Use visuals and clear, simple language.
- Collaborate with language and support staff.
- Maintain a nurturing, structured environment.
- Avoid slang; speak slowly and clearly.
- Build positive connections with parents and caregivers.

Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials
- ➢ Ready Center Videos
- ➢ Ready Prerequisite Lessons
- ➢ Differentiated Math Center Activities
- ➢ Enrichment Activities
- ➢ Brainpop Jr.
- ➢ ABCya
- ➢ Starfall
- ➢ Coolmath
- ➢ Youtube videos and songs

Intervention Materials
- ➢ Ready Tools for Instruction
- ➢ iReady Online My Learning Path
- ➢ Fluency and Skills Practice
- ➢ Math Coach Centers
- ➢ Intervention Connection District Website

Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 2 Overview	
Content Area: Mathematics	
Unit Title: Numbers to 5, Shapes, and Weight (Trimester 1)	**Duration:** 22 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will build foundational number skills by learning to count, write, and compare numbers from 0 to 5. Through engaging activities and hands-on practice, students will develop a deeper understanding of quantity, using one-to-one correspondence to count objects accurately and confidently. They will also explore the concept of zero, recognizing it as representing no objects, and begin using math vocabulary such as “more,” “less,” and “same” to compare groups of up to five items.

As they build fluency with numbers 0 to 5, students will also begin to understand how numbers relate to one another in sequence. They will explore the idea that “one more” refers

to the next number in the counting order, helping to establish early number sense and the foundation for future addition concepts. Alongside these number skills, students will practice reading and writing numerals 0 through 5, reinforcing number recognition and the ability to represent quantities in written form.

This unit also introduces students to three-dimensional shapes, helping them to identify, name, and describe solid figures such as spheres, cubes, cylinders, and cones. Students will explore the characteristics of these shapes through observation and manipulation, using precise math language to describe what they see.

In addition to shapes, students will begin to compare the weights of different objects. They will use terms such as “heavier” and “lighter” to describe and compare the relative weight of two items, expanding their understanding of measurable attributes beyond length and height.

Before beginning this unit, students should already be able to count to 20 by rote and demonstrate an understanding of quantity by accurately counting at least five objects. They should have some familiarity with reading and writing numbers to 5, sorting groups of objects by common attributes, and comparing objects based on length or height.

By the end of this unit, children will have a stronger grasp of counting and comparing small numbers, increased confidence in identifying solid shapes, and an emerging understanding of weight. These skills are essential components of early mathematics and prepare students for more advanced concepts in number operations and measurement.

Disciplinary Concepts for the Unit

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This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

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challenges and opportunities in an interconnected global economy." **Focus Standards (Major Standards) https://www.nj.gov/education/cccs**		
Content Standards: New Jersey Student Learning Standards for Mathematics	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
K.CC.A.1* A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count 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)	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count by ones and by tens
K.CC.A.3 3. Write numbers from 0 to 20. Represent a number of objects	MP.1 Make sense of problems and persevere in solving them	Concept(s): ➢ The number of objects can be

with a written numeral 0-20 (with 0 representing a count of no objects).	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	represented by a numeral. Students are able to: ➢ write numbers from 0 to 20. Learning Goal: Represent a number of objects with a written numeral 0 to 20.
K.CC.B.4 a, b, c B. Count to tell the number of objects. 4. Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	Concept(s): ➢ Objects can be counted in any order. Each object is counted once (one-to-one correspondence) . ➢ The next number name in counting is always one greater than the previous number. ➢ The last number name said tells the number of objects counted. Students are able to: ➢ say number names in the standard order. ➢ pair each object

		with one number name (one-to-one correspondence). ➢ count to tell the number of objects. ➢ count objects arranged in any order. ➢ identify the last number named as the number of objects counted. Learning Goal: Assign an ascending number name for each object in a group. Learning Goal: State the last number named as the number of counted objects in the set. Learning Goal: Identify the next number name in counting as one greater than the previous number. Learning Goal: Identify the next number name in counting as one greater than

		the previous number
K.CC.B.5 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.	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➢ count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. ➢ count to tell the number of objects when asked *how many?* questions . ➢ given a number from 1-10, count out that many object. Learning Goal: Answer *how many?* questions about groups of up to 10 objects when arranged in a line, rectangular array or circle. Learning Goal: Answer *how many?* questions about groups of up to 5 when arranged in a

		scattered configuration.
K.CC.C.6 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	MP.1 Make sense of problems and persevere in solving them MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics.	Concept(s) ➢ Different groups can have different numbers of objects. ➢ Numbers of objects can be compared using phrases such as greater than, less than and equal to. Students will be able to: ➢ compare the number of objects (up to 10) in two groups. ➢ identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Learning Goal: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (groups of up to 10 objects).
K.CC.C.7	MP.1 Make sense of problems and persevere in solving them	Concept(s):

7. Compare two numbers between 1 and 10 presented as written numerals.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	➢ Number names and the count sequence ➢ The next number name in counting is always one greater than the previous number. ➢ Count to tell the number of objects. Students will be able to: ➢ compare numbers (up to 10) written as numerals Learning Goal 9: Compare numbers (up to 10) written as numerals
K.G.A.1 A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): ➢ Shapes have names. ➢ Positional words (above, below, besides, in front of, behind, next to) Students will be able to: ➢ name shapes in order to

		describe objects in the environment. ➢ use terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to* in order to describe relative positions of objects. Learning Goal: 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.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.8 Look for and express	Concept(s): ➢ Shapes have names. ➢ Shapes can have the same names but appear different. Students are able to: ➢ correctly names shapes regardless of

	regularity in repeated reasoning.	their orientation or overall size. Learning Goal: Correctly names shapes regardless of their orientation or overall size
K.G.A.3 3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Shapes may be *flat* or *solid*. Students are able to: ➢ identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat*, *solid*). ➢ compare two- and three- dimensional shapes, in different sizes, and orientations. Learning Goal: Identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat*, *solid*).
New Jersey Student Learning Standards: Interdisciplinary Connections **https://www.nj.gov/education/cccs**		
L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. A. Identify new meanings for familiar words and apply them accurately (e.g., knowing		

duck is a bird and learning the verb to duck).
B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.

W.IW.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts to convey ideas.
A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.
A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
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New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
There are ways to keep the things we value safely at home and other places.	9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

New Jersey Student Learning Standards: Computer Science and Design Thinking

Core Ideas	Performance Expectations (Identified with Standard Number and Statement)
Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems.

	8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Count, show, and write numbers from 0 to 5 accurately.
- Recognize that the arrangement or order of counting objects does not change the total number.
- Understand that the last number said when counting represents the total number of objects in a set.
- Match a written number to a corresponding group or collection of objects.
- Compare two numbers or quantities within 5 using the terms *more, less,* or *same*.
- Understand that one more than a given number is the next number in the counting sequence.
- Identify three-dimensional shapes as solid figures and describe their key attributes.

- ➢ Connect solid shapes to real-world objects and recognize them regardless of orientation, size, or weight.
- ➢ Compare the weights of two objects to determine which is *heavier* or *lighter*.

Language Objectives:

- ➢ Say and write the number that represents a group of 0 to 5 objects.
- ➢ Follow oral directions to show, build, or draw sets of 0 to 5 items.
- ➢ Orally explain that the last number counted tells how many are in the group.
- ➢ Describe and show that changing the order or position of objects does not affect the count.
- ➢ Use sentence frames to agree with and build on a partner's idea, showing active listening and respectful collaboration.
- ➢ Use comparison terms such as *more*, *less*, and *same* to describe the quantities in different groups.
- ➢ Tell, write, and draw the number that is one more than a given number or group of objects.
- ➢ Explain ideas clearly using complete sentences and check that others understand by asking clarifying questions or restating their ideas.
- ➢ Use vocabulary such as *solid, cube, cylinder, cone,* and *sphere* to identify and name three-dimensional shapes.
- ➢ Follow oral directions to describe solid shapes using terms like *face, corner, edge*, and *curved*.
- ➢ Compare objects using the terms *heavier* and *lighter* and describe how their weights differ.
- ➢ Justify thinking by proving oral explanations, giving examples, and using evidence to support reasoning.

Unit Enduring Understandings:
Students will know…

- ➢ Numbers are names we use to count things.
- ➢ Numbers are symbols that show how many things there are and can be ordered from smallest to biggest.
- ➢ We use numbers every day to talk about how many things we have or how much we want.

Unit Essential Questions:

- ➢ What are numbers and what do they mean?
- ➢ What is counting and how do we use it?
- ➢ When do we need to count things?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a

Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities

  Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world
  Explore--Students draw on prior knowledge and make connections to new concepts
  Develop--Students develop strategies and understanding through problem solving and discourse
  Refine--Students deepen their understanding and strengthen their skills

- What Happens In the Classroom

  1. Students make sense of problems and attempt their own representations and solution strategies.
  2. Hints are provided to students in the form of questions to consider as they solve each problem
  3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  4. Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  5. The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine

Try
  Make sense of the problem
  Solve and support your thinking

Discuss
  Share your thinking with a partner
  Compare Strategies

Connect
  Make connections and reflect on what you have learned
  Apply your thinking to a new problem

Resources:

Ready Classroom Teacher Toolkit

- Instruction and Practice
- Editable Powerpoint
- Interactive Tutorial

- Student Worktext
- Discourse Cards
- Digital Manipulatives
- Math Journal
- Lesson Vocabulary Activities
- Unit Game
- Exit Ticket

Small Group Differentiation
Prepare
- Ready Prerequisite Lessons

Reteach
- Tools for Instruction

Reinforce
- Differentiated Math Center Activities

Extend
- Enrichment Activities

Independent Learning
- IReady online personalized instruction generated from iReady Diagnostic assessment
- Fluency and skills practice
- Interactive Tutorials (Lesson, Prerequisite, or Extend)
- Math Center Activities
- Additional Practice Activities
- Online Fluency Games

Evidence of Student Learning

Formative Assessments:
- Teacher Observation
- Games
- Performance Assessment
- Anecdotal Records
- Exit Slips
- Oral Assessment/Conferencing
- Portfolios/Journals
- Daily Classwork
- Pre-Assessment

Summative Assessments
- Unit Tests
- Quizzes
- Writing Samples

Benchmark Assessments:
- Unit Assessments

- Benchmark Assessments
- Aimsweb Early Numeracy

Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity
- Math In Action
- Performance Task

Suggested Options for Differentiation and Modifications

Special Education

- Follow all IEP modifications.
- Use visuals, manipulatives, and graphic supports.
- Pre-teach and review key vocabulary.
- Provide summaries, word banks, and visual glossaries.
- Use small-group instruction.
- Offer peer tutoring or a "buddy."
- Read aloud directions; use choral reading, chants, or songs when appropriate.
- Provide preferential seating.
- Allow extra time on tasks.
- Accept oral or dictated responses.
- Shorten or modify assignments/questions.
- Use large-print, Braille, or digital text with audio options.
- Provide scribes or augmentative communication systems as needed.

Students with 504 Plans

- Follow the 504 plan.
- Provide extra time on assignments/tests.
- Offer small-group settings.
- Accept oral or dictated responses.
- Use large-print, Braille, or digital text.
- Provide a scribe or communication device if needed.

Students at Risk of School Failure

- Use visuals and hands-on supports.
- Pre-teach key vocabulary and concepts.
- Provide small-group instruction.

- Read aloud directions and model steps.
- Use peer tutoring or a supportive "buddy."
- Offer chants, songs, and repetition for reinforcement.
- Provide preferential seating.

Gifted and Talented

- Ask open-ended and higher-order questions.
- Encourage problem-solving, discovery, and creativity.
- Provide extension activities based on interests.
- Offer advanced or leveled materials.
- Use flexible grouping by ability or interest.
- Include enrichment centers, puzzles, or concept maps.
- Provide choice in assignments.
- Incorporate problem-solving simulations.
- Debrief to reflect on learning.

Multilingual Learners

- Collaborate with ESL/MLL specialists.
- Provide small-group instruction.
- Pre-teach vocabulary; label classroom items.
- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
- Provide sentence and speaking frames.
- Allow oral responses and extended time.
- Use audio books or recorded directions.

Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
- Provide alternative assignments if needed.
- Use visuals and clear, simple language.
- Collaborate with language and support staff.
- Maintain a nurturing, structured environment.
- Avoid slang; speak slowly and clearly.
- Build positive connections with parents and caregivers.

Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials

- Ready Center Videos
- Ready Prerequisite Lessons
- Differentiated Math Center Activities
- Enrichment Activities
- Brainpop Jr.
- ABCya
- Starfall
- Coolmath
- Youtube videos and songs

Intervention Materials

- Ready Tools for Instruction
- iReady Online My Learning Path
- Fluency and Skills Practice
- Math Coach Centers

Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 3 Overview	
Content Area: Mathematics	
Unit Title: Addition and Subtraction Within 5 and Shapes (Begin in Trimester 1/End in Trimester 2)	**Duration:** 35 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will be introduced to the foundational concepts of addition and subtraction within 5. Using hands-on tools such as fingers and manipulatives, students will begin to model and solve simple story problems that involve putting together or taking away objects. They will learn to recognize when a situation requires adding or subtracting, and use appropriate strategies to find the solution. As students explore these basic operations, they will also develop fluency in using math vocabulary such as “add,” “plus,” “subtract,” and “take away” to describe their thinking.

Alongside this work with numbers, the unit also focuses on building an understanding of two-dimensional shapes. Students will identify and name shapes such as circles, triangles, squares, and rectangles, regardless of their size or orientation. They will begin to describe the attributes of these shapes, such as the number of sides or corners, and learn to recognize them in various contexts and configurations. This early geometry work helps students become more observant of the shapes in their environment and encourages them to use precise language to describe what they see.

To be ready for this unit, students should have a solid foundation in counting and comparing quantities up to 5. They should understand that each number in the counting sequence represents one more than the number before it and have had repeated practice with counting small sets of objects. Familiarity with basic two-dimensional shapes, especially in their standard forms, will also support students as they expand their understanding to include variations in size and orientation.

By the end of the unit, students will be able to solve simple addition and subtraction problems within 5, identify and describe two-dimensional shapes, and use appropriate math vocabulary to explain their reasoning. These early skills provide the groundwork for more complex problem-solving and mathematical thinking in future learning.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy

This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training

This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills

This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard 8.1 Computer Science

Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

Standard 8.2 Design Thinking

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

Diversity and Inclusion: C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

(1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;

(2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and

(3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

Asian Americans and Pacific Islanders (AAPI)

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

21st Century Themes and Skills

“Twenty-first century themes and skills” means themes such as global awareness; financial,

economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy."
Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	**Suggested Standards for Mathematical Practice**	**Critical Knowledge & Skills**
K.CC.A.1* A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count 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)	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ count orally by ones up to 50, beginning at any number. Learning Goal: ➢ Count forward up to 50 starting from

		numbers other than one
K.CC.A.3*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).	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ➢ The number of objects can be represented by a numeral. Students are able to: ➢ write numbers from 0 to 20. Learning Goal: Represent a number of objects with a written numeral 0 to 20.
K.OA.A.1* 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.	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ➢ Understand addition as putting together and adding to. ➢ Understand subtraction as taking apart and taking from. Students are able to: ➢ create addition events with objects (up to 10). ➢ create addition events with drawings and

		sounds (up to 10). ➢ create addition events by acting out situations and with verbal explanations. Learning Goal: Create addition events with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations for sums up to 10
K.OA.A.2 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students will be able to: ➢ use objects and drawings to represent addition and subtraction. ➢ add and subtract within 10. Learning Goal: Use objects or

		drawings to represent and solve addition and subtraction word problems (within 10).
K.G.A.1 A. Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres). 1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.7 Look for and make use of structure.	Concept(s): ➢ Shapes have names. ➢ Positional words (above, below, besides, in front of, behind, next to) Students will be able to: ➢ name shapes in order to describe objects in the environment. ➢ use terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to* in order to describe relative positions of objects.

		Learning Goal: 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.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Shapes have names. ➢ Shapes can have the same names but appear different. Students are able to: ➢ correctly names shapes regardless of their orientation or overall size. Learning Goal: Correctly names shapes regardless of their orientation or overall size
K.G.A.3 3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).	MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others.	Concept(s): ➢ Shapes may be *flat* or *solid*. Students are able to:

	MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	➢ identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat*, *solid*). ➢ compare two- and three- dimensional shapes, in different sizes, and orientations. Learning Goal: Identify shapes as two-dimensional (lying in a plane, *flat*) or three-dimensional (*not flat*, *solid*).

New Jersey Student Learning Standards: Interdisciplinary Connections
https://www.nj.gov/education/cccs

L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.

A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

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A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
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There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

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Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

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Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Use fingers, pictures, or manipulatives to add and subtract numbers within 5.
- Understand that adding to a number results in more, except when adding zero.
- Understand that subtracting from a number results in less, except when subtracting zero.
- Write addition sentences by recording the starting number, the number added, and the total.
- Identify and correctly use the plus sign (+) to show addition and the minus sign (-) to show subtraction.
- Tell and solve simple “add-to” and “take-away” story problems using hands-on tools or visuals.
- Determine whether a story problem requires addition or subtraction and solve it using objects, drawings, or pictures.
- Identify two-dimensional shapes as flat and describe their attributes, including sides and corners.
- Name and describe common shapes such as circles, triangles, rectangles, and squares regardless of their orientation or size.
- Use positional language to describe where shapes or objects are located.
- Build and draw two-dimensional shapes from given parts or examples.

Language Objectives:

- Follow oral directions to model addition and subtraction within 5 using fingers, pictures, and manipulatives.
- Explain orally that adding results in more and subtracting results in less, except when using zero.
- Use math vocabulary such as *and, more, in all, take away, go away,* and *leave* to describe and solve story problems.

- Read, say, and write the plus sign (+) and minus sign (-) to represent addition and subtraction in equations.
- Listen to story problems and determine whether they involve adding or subtracting, using language to justify reasoning.
- Use objects, drawings, and expressions to explain thinking and solutions clearly.
- Read and connect math expressions to models, pictures, or story problems.
- Follow oral directions to describe two-dimensional shapes using terms like *flat, side,* and *corner.*
- Identify and name shapes such as circles, triangles, rectangles, and squares from varied orientations.
- Demonstrate understanding of spatial words like *above, below, beside, in front of,* and *next to* by describing and drawing the positions of shapes or objects.
- Ask questions to clarify understanding and show active listening.
- Use sentence frames and respectful language to explain or disagree with a classmate's idea in a constructive way.
- Use pictures and clear explanations to communicate mathematical ideas and solutions to others.

Unit Enduring Understandings:
Students will know…

- Numbers show how many things there are and can help us find answers when we add or subtract.
- We can solve real-world problems by adding and subtracting numbers.
- Shapes can be flat or solid, and flat shapes are the faces of solid shapes.
- We use words to describe where shapes are, like above, below, or next to.

Unit Essential Questions:

- What happens when we put groups together or take them apart?
- How can we use pictures and objects to help solve addition and subtraction problems?
- How can we describe a flat (2D) shape?
- How are flat shapes and solid shapes different?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities
  Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world

Explore--Students draw on prior knowledge and make connections to new concepts
Develop--Students develop strategies and understanding through problem solving and discourse
Refine--Students deepen their understanding and strengthen their skills

➢ What Happens In the Classroom

1. Students make sense of problems and attempt their own representations and solution strategies.
2. Hints are provided to students in the form of questions to consider as they solve each problem
3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
4. Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
5. The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine
Try
Make sense of the problem
Solve and support your thinking
Discuss
Share your thinking with a partner
Compare Strategies
Connect
Make connections and reflect on what you have learned
Apply your thinking to a new problem

Resources:
Ready Classroom Teacher Toolkit
Instruction and Practice
Editable Powerpoint
Interactive Tutorial
Student Worktext
Discourse Cards
Digital Manipulatives
Math Journal
Lesson Vocabulary Activities
Unit Game
Exit Ticket

Small Group Differentiation

Prepare
- ➢ Ready Prerequisite Lessons

Reteach
- ➢ Tools for Instruction

Reinforce
- ➢ Differentiated Math Center Activities

Extend
- ➢ Enrichment Activities

Independent Learning
- ➢ IReady online personalized instruction generated from iReady Diagnostic assessment
- ➢ Fluency and skills practice
- ➢ Interactive Tutorials (Lesson, Prerequisite, or Extend)
- ➢ Math Center Activities
- ➢ Additional Practice Activities
- ➢ Online Fluency Games

Evidence of Student Learning

Formative Assessments:
- ➢ Teacher Observation
- ➢ Games
- ➢ Performance Assessment
- ➢ Anecdotal Records
- ➢ Exit Slips
- ➢ Oral Assessment/Conferencing
- ➢ Portfolios/Journals
- ➢ Daily Classwork
- ➢ Pre-Assessment

Summative Assessments
- ➢ Unit Tests
- ➢ Quizzes
- ➢ Writing Samples

Benchmark Assessments:
- ➢ Unit Assessments
- ➢ Benchmark Assessments
- ➢ Aimsweb Early Numeracy

Alternative Assessments
- ➢ Portfolio review
- ➢ Anecdotal Notes

Performance Tasks:
- ➢ Project Based Learning Activity
- ➢ Math In Action
- ➢ Performance Task

Suggested Options for Differentiation and Modifications

Special Education

- Follow all IEP modifications.
- Use visuals, manipulatives, and graphic supports.
- Pre-teach and review key vocabulary.
- Provide summaries, word banks, and visual glossaries.
- Use small-group instruction.
- Offer peer tutoring or a "buddy."
- Read aloud directions; use choral reading, chants, or songs when appropriate.
- Provide preferential seating.
- Allow extra time on tasks.
- Accept oral or dictated responses.
- Shorten or modify assignments/questions.
- Use large-print, Braille, or digital text with audio options.
- Provide scribes or augmentative communication systems as needed.

Students with 504 Plans

- Follow the 504 plan.
- Provide extra time on assignments/tests.
- Offer small-group settings.
- Accept oral or dictated responses.
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- Provide a scribe or communication device if needed.

Students at Risk of School Failure

- Use visuals and hands-on supports.
- Pre-teach key vocabulary and concepts.
- Provide small-group instruction.
- Read aloud directions and model steps.
- Use peer tutoring or a supportive "buddy."
- Offer chants, songs, and repetition for reinforcement.
- Provide preferential seating.

Gifted and Talented

- Ask open-ended and higher-order questions.

- Encourage problem-solving, discovery, and creativity.
- Provide extension activities based on interests.
- Offer advanced or leveled materials.
- Use flexible grouping by ability or interest.
- Include enrichment centers, puzzles, or concept maps.
- Provide choice in assignments.
- Incorporate problem-solving simulations.
- Debrief to reflect on learning.

Multilingual Learners

- Collaborate with ESL/MLL specialists.
- Provide small-group instruction.
- Pre-teach vocabulary; label classroom items.
- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
- Provide sentence and speaking frames.
- Allow oral responses and extended time.
- Use audio books or recorded directions.

Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
- Provide alternative assignments if needed.
- Use visuals and clear, simple language.
- Collaborate with language and support staff.
- Maintain a nurturing, structured environment.
- Avoid slang; speak slowly and clearly.
- Build positive connections with parents and caregivers.

Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials

- Ready Center Videos
- Ready Prerequisite Lessons
- Differentiated Math Center Activities
- Enrichment Activities
- Brainpop Jr.
- ABCya
- Starfall
- Coolmath
- Youtube videos and songs

Intervention Materials

- Ready Tools for Instruction
- iReady Online My Learning Path
- Fluency and Skills Practice
- Math Coach Centers

Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 4 Overview	
Content Area: Mathematics	
Unit Title: Numbers to 10 and Shapes (Trimester 2)	**Duration: 32 Days**
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will continue developing their number sense by extending their understanding of counting, writing, and comparing numbers up to 10. Building on their prior experience with numbers to 5, students will learn to accurately count sets of objects from 6 to 10 using one-to-one correspondence and recognize that each number name corresponds to a quantity. They will practice writing numerals and comparing numbers within this range using mathematical language such as “greater than,” “less than,” and “equal to.” These skills support a deeper understanding of quantity and the relationships between numbers.

A key focus of the unit is exploring the concept of number partners for 10. Students will begin to compose and decompose the number 10 in different ways, using objects, drawings, and equations to show how two numbers can be combined to make 10. They will learn to identify

missing partners in equations and begin writing simple number sentences to represent these relationships. This work lays a strong foundation for future addition and subtraction fluency.

In addition to their work with numbers, students will explore the concept of shape composition. They will use two-dimensional and three-dimensional shapes to build larger composite shapes, developing spatial reasoning and a better understanding of how shapes relate to one another. Through hands-on exploration, students will describe the attributes of shapes and use math vocabulary to explain how they fit together.

Before beginning this unit, students should be able to count and create sets of up to 5 objects, compare numbers within 5, and identify basic two-dimensional and three-dimensional shapes. They should also have some experience describing the properties of shapes and using informal language to compare size and form.

By the end of the unit, students will confidently count, write, and compare numbers up to 10, recognize number combinations that make 10, and compose new shapes by putting smaller shapes together. These skills form a critical part of early mathematics and help children develop both numerical fluency and geometric understanding.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training
This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills
This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard 8.1 Computer Science
Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

Standard 8.2 Design Thinking

Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

Diversity and Inclusion: C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

(1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;

(2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and

(3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

Asian Americans and Pacific Islanders (AAPI)

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

21st Century Themes and Skills

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
K.CC.A.1 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count by ones and by tens.
K.CC.A.2 2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ count orally by ones up to 50, beginning at any number. Learning Goal: ➢ Count forward up to 50 starting from numbers other than one
K.CC.A.3	MP.1 Make sense of problems and persevere in solving them	Concept(s):

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).	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	➢ The number of objects can be represented by a numeral. Students are able to: ➢ write numbers from 0 to 20. Learning Goal: Represent a number of objects with a written numeral 0 to 20.
K.CC.C.6 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	MP.1 Make sense of problems and persevere in solving them MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics.	Concept(s) ➢ Different groups can have different numbers of objects. ➢ Numbers of objects can be compared using phrases such as greater than, less than and equal to. Students will be able to: ➢ compare the number of objects (up to 10) in two groups. ➢ identify whether the number of objects in one group is greater than, less than, or equal to the number of

		objects in another group. Learning Goal: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (groups of up to 10 objects).
K.CC.C.7 7. Compare two numbers between 1 and 10 presented as written numerals.	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): ➢ Number names and the count sequence ➢ The next number name in counting is always one greater than the previous number. ➢ Count to tell the number of objects. Students will be able to: ➢ compare numbers (up to 10) written as numerals Learning Goal 9: Compare numbers (up to 10) written as numerals
K.OA.A. 4. For any number from 1 to 9, find the number that makes 10 when added to the given number,	MP.1 Make sense of problems and persevere in solving them.	Concept(s): No new concept(s) introduced

e.g., by using objects or drawings, and record the answer with a drawing or equation. 5. Demonstrate fluency for addition and subtraction within 5.	MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Students are able to: ➢ find a missing part of 10 using objects. ➢ given a number from 1 to 9, use drawings, or equations to find the number that makes 10. Learning Goal: Given a number less than 10, find the number that makes 10.
K.OA.A.5 5. Demonstrate fluency for addition and subtraction within 5.	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ add and subtract within 5 with accuracy and efficiency. Learning Goal: Use mental math strategies to solve addition and subtraction facts within 5.
K.G.B.6 6. Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.	Concept(s): ➢ Shapes can be combined to make larger shapes.

full sides touching to make a rectangle?"	MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Students are able to: ➢ compose simple shapes to form larger shapes. Learning Goal: Compose simple shapes to form larger shapes.

New Jersey Student Learning Standards: Interdisciplinary Connections
https://www.nj.gov/education/cccs

L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.

A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).
B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

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A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
There are ways to keep the things we value safely at home and other places.	9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.
New Jersey Student Learning Standards: Computer Science and Design Thinking	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Count accurately up to 10 using one-to-one correspondence and number words in sequential order.
- Use 10-frames as a tool to count and visually represent quantities up to 10.
- Recognize, write, and match numbers 6 through 10 to corresponding quantities.
- Understand that the last number counted indicates the total number of objects in a group.
- Compare two groups of objects, each containing up to 10 items, to determine which has *greater than, less than,* or *equal to* quantities.
- Compare two numbers within the range of 1 to 10, using visual models and drawings.
- Compose larger shapes by combining two or more two-dimensional or three-dimensional shapes.
- Describe composite shapes made from multiple two- or three-dimensional shapes.
- Recognize that numbers can be broken into smaller parts and identify number partners that compose 10 using drawings or manipulatives.
- Find the missing number partner to make 10 when given one partner.
- Understand the equal sign (=) and use it to represent number partners for 10 through equations.
- Decompose the number 10 into number patterns using objects or drawings and identify all number partners that sum to 10.

Language Objectives:

- Follow oral directions to count up to 10 using one-to-one correspondence, number words, and 10-frame representations.
- State the total number of objects counted or arranged in a 10-frame clearly.
- Identify, write, and use numbers 6 to 10 to represent quantities of objects.
- Use sentence frames to agree with others and explain how ideas or strategies are similar.
- Compare groups of objects orally, using terms such as *greater than, less than,* and *equal to*.
- Draw and mark visual models to compare two numbers between 1 and 10.
- Explain differences in problem-solving strategies and solutions, especially when respectfully disagreeing with a classmate's idea.
- Follow directions to build composite shapes using drawings or models and name the shapes that make up the composite.

- Demonstrate active listening by asking for clarification or indicating when information is unclear.
- Use the terms *compose* and *decompose* accurately when responding to directions about breaking numbers into parts or finding number partners for 10.
- Explain and show multiple strategies for solving the same problem using pictures, objects, and sentence frames.
- Interpret and write equations using the equal sign to represent number partners for 10.
- Describe and justify reasoning about number partners for 10 using models or drawings during partner and whole-class discussions.

Unit Enduring Understandings:
Students will know…

- Knowing the counting order helps you figure out what number comes next.
- You can compare how many things are in two groups by counting and see if one group has more, less, or the same as the other.
- When you put two numbers together, you can make a new number.

Unit Essential Questions:

- What are numbers and how do we use them?
- What is counting and how can it help us?
- What happens when we put different shapes together?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities

  Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world
  Explore--Students draw on prior knowledge and make connections to new concepts
  Develop--Students develop strategies and understanding through problem solving and discourse
  Refine--Students deepen their understanding and strengthen their skills

- What Happens In the Classroom

  1. Students make sense of problems and attempt their own representations and solution strategies.

2. Hints are provided to students in the form of questions to consider as they solve each problem
3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
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6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine
Try
Make sense of the problem
Solve and support your thinking
Discuss
Share your thinking with a partner
Compare Strategies
Connect
Make connections and reflect on what you have learned
Apply your thinking to a new problem

Resources:
Ready Classroom Teacher Toolkit
- ➢ Instruction and Practice
- ➢ Editable Powerpoint
- ➢ Interactive Tutorial
- ➢ Student Worktext
- ➢ Discourse Cards
- ➢ Digital Manipulatives
- ➢ Math Journal
- ➢ Lesson Vocabulary Activities
- ➢ Unit Game
- ➢ Exit Ticket

Small Group Differentiation
Prepare
- ➢ Ready Prerequisite Lessons

Reteach
- ➢ Tools for Instruction

Reinforce
- ➢ Differentiated Math Center Activities

Extend
- ➢ Enrichment Activities

Independent Learning

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- Unit Tests
- Quizzes
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Benchmark Assessments:

- Unit Assessments
- Benchmark Assessments
- Aimsweb Early Numeracy

Alternative Assessments

- Portfolio review
- Anecdotal Notes

Performance Tasks:

- Project Based Learning Activity
- Math In Action
- Performance Task

Suggested Options for Differentiation and Modifications

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- Pre-teach and review key vocabulary.
- Provide summaries, word banks, and visual glossaries.

- Use small-group instruction.
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- Include enrichment centers, puzzles, or concept maps.
- Provide choice in assignments.
- Incorporate problem-solving simulations.

- Debrief to reflect on learning.

Multilingual Learners

- Collaborate with ESL/MLL specialists.
- Provide small-group instruction.
- Pre-teach vocabulary; label classroom items.
- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
- Provide sentence and speaking frames.
- Allow oral responses and extended time.
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Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
- Provide alternative assignments if needed.
- Use visuals and clear, simple language.
- Collaborate with language and support staff.
- Maintain a nurturing, structured environment.
- Avoid slang; speak slowly and clearly.
- Build positive connections with parents and caregivers.

Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials

- Ready Center Videos
- Ready Prerequisite Lessons
- Differentiated Math Center Activities
- Enrichment Activities
- Brainpop Jr.
- ABCya
- Starfall

- ➢ Coolmath
- ➢ Youtube videos and songs

Intervention Materials

- ➢ Ready Tools for Instruction
- ➢ iReady Online My Learning Path
- ➢ Fluency and Skills Practice
- ➢ Math Coach Centers

Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 5 Overview	
Content Area: Mathematics	
Unit Title: Numbers to 100 (Begin in Trimester 2/End in Trimester 3)	**Duration:** 25 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will build on their early number skills by learning to count, read, and write numbers from 11 to 20. As they explore teen numbers, students will come to understand that these numbers are made up of a group of ten and some additional ones. This foundational understanding supports the development of place value concepts and prepares students for more advanced mathematical operations.

Along with their work with teen numbers, students will begin to extend their counting skills to 100. They will practice counting by ones and by tens, developing fluency with the number sequence and recognizing patterns that occur as numbers increase. Students will also learn to count on from any number less than 100, strengthening their ability to keep track of quantity and number relationships.

Another focus of this unit is decomposing numbers from 6 to 9 into their number partners. Students will use manipulatives and drawings to break numbers apart in different ways, discovering all the combinations that can make up a given total. They will then represent these combinations using equations, helping them connect concrete representations to abstract notation. This work deepens their understanding of how numbers can be composed and decomposed, an essential concept for building addition and subtraction fluency.

To be prepared for this unit, children should already be able to count up to 10 objects with understanding and recognize that joining two groups of objects results in a larger group. These prerequisite skills will support their ability to work with larger numbers and understand the relationships between parts and wholes.

By the end of the unit, students will confidently count, read, and write numbers up to 20, count to 100 by ones and tens, and decompose numbers from 6 to 9 into different combinations. They will be able to write equations to represent their thinking and use appropriate math vocabulary to describe counting, composing, and decomposing numbers. These skills are essential for building strong number sense and preparing students for future mathematical learning.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training
This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills
This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard 8.1 Computer Science
Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

Standard 8.2 Design Thinking
Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate

place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

Diversity and Inclusion: C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

(1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;

(2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and

(3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

Asian Americans and Pacific Islanders (AAPI)

Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

21st Century Themes and Skills

"Twenty-first century themes and skills" means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy."

Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
K.CC.A.1	MP.4 Model with mathematics.	Concept(s):

1. Count to 100 by ones and by tens.	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count 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).	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ count orally by ones up to 50, beginning at any number. Learning Goal: ➢ Count forward up to 50 starting from numbers other than one
K.CC.A.3 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).	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	Concept(s): ➢ Represent the number of objects with a numeral. Students are able to: ➢ write numbers from 0 to 10.

	MP.7 Look for and make use of structure.	Learning Goal: Represent the number of objects with a written numeral up to 10.
K.CC.B.4 Count to tell the number of objects. 4. Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision.	Concept(s): ➢ Objects can be counted in any order. Each object is counted once (one-to-one correspondence) . ➢ The next number name in counting is always one greater than the previous number. ➢ The last number name said tells the number of objects counted. Students are able to: ➢ say number names in the standard order. ➢ pair each object with one number name (one-to-one correspondence) ➢ count to tell the number of objects.

		➢ count objects arranged in any order. ➢ identify the last number named as the number of objects counted. Learning Goal: Assign an ascending number name for each object in a group. Learning Goal: State the last number named as the number of counted objects in the set. Learning Goal: Identify the next number name in counting as one greater than the previous number.
K.CC.B.5 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.	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students are able to: ➢ count to tell the number of objects arranged in a line, rectangular array, circle, or scattered configuration. ➢ count to tell the number of

		objects when asked *how many?* questions . ➢ given a number from 1-10, count out that many object. Learning Goal: Answer *how many?* questions about groups of up to 10 objects when arranged in a line, rectangular array or circle. Learning Goal: Answer *how many?* questions about groups of up to 5 when arranged in a scattered configuration.
K.NBT.A.1 A. Work with numbers 11–19 to gain foundations for place value. 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	Concept(s): ➢ Numbers from 11 to 19 can be represented as one group of ten *ones* and another group containing fewer than ten *ones*. Students are able to: ➢ compose and decompose numbers from 11 to 19 into a

		group of ten *ones* and another group of one(s). ➢ use the term *ones* to describe the number of objects in each group. ➢ record each composition or decomposition using objects and drawings. ➢ record each composition or decomposition by a drawing or equation. Learning Goal: Compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives. Record each composition or decomposition through a drawing or equation.

New Jersey Student Learning Standards: Interdisciplinary Connections
https://www.nj.gov/education/cccs

L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content.

A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck).

B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills

Core Ideas	Performance Expectations (Identified with Standard Number and statement)
There are ways to keep the things we value safely at home and other places.	9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

New Jersey Student Learning Standards: Computer Science and Design Thinking

Core Ideas	Performance Expectations (Identified with Standard Number and Statement)
Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.

	8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Count groups of objects up to 20 accurately.
- Read and write numbers from 11 to 20.
- Count to 100 by ones and by tens.
- Count on from any given number less than 100.
- Decompose the numbers 6 and 7 into number partners using objects or drawings.
- Represent number partners for 6 and 7 with written equations.
- Decompose the numbers 8 and 9 into number partners using objects or drawings.
- Represent number partners for 8 and 9 with written equations.

Language Objectives:

- Identify and state the number of objects in groups up to 20.
- Name and write numbers from 11 to 20 to represent quantities.

- Describe connections between new problems and previously solved problems using sentence frames.
- Recite the numbers while counting to 100 by ones and by tens.
- Follow oral directions to count on from a given number less than 100.
- Retell and explain the steps taken to solve a problem using sequence words when working with a partner.
- Describe and model decomposing numbers 6 and 7 into number partners using objects and drawings.
- Interpret and write equations that represent number partners for 6 and 7.
- Use connecting words to build on a classmate's ideas by adding details during discussions.
- Describe and model decomposing numbers 8 and 9 into number partners with objects or drawings.
- Interpret and write equations that represent number partners for 8 and 9.
- Disagree respectfully with parts of a classmate's idea and explain reasoning clearly using sentence frames.

Unit Enduring Understandings:
Students will know…

- Teen numbers are the numbers from 11 to 19.
- Teen numbers are made up of 10 ones and some more ones.
- Counting by tens helps us learn the counting sequence all the way to 100.

Unit Essential Questions:

- What are numbers and why do we use them?
- How can counting help us understand numbers?
- What is base 10, and how can we use it to count?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities
  - Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world
  - Explore--Students draw on prior knowledge and make connections to new concepts

Develop--Students develop strategies and understanding through problem solving and discourse
Refine--Students deepen their understanding and strengthen their skills

- What Happens In the Classroom
  1. Students make sense of problems and attempt their own representations and solution strategies.
  2. Hints are provided to students in the form of questions to consider as they solve each problem
  3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
  4. Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
  5. The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
  6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine
Try
Make sense of the problem
Solve and support your thinking
Discuss
Share your thinking with a partner
Compare Strategies
Connect
Make connections and reflect on what you have learned
Apply your thinking to a new problem

Resources:
Ready Classroom Teacher Toolkit
- Instruction and Practice
- Editable Powerpoint
- Interactive Tutorial
- Student Worktext
- Discourse Cards
- Digital Manipulatives
- Math Journal
- Lesson Vocabulary Activities
- Unit Game
- Exit Ticket

Small Group Differentiation
Prepare

- ➢ Ready Prerequisite Lessons

Reteach
- ➢ Tools for Instruction

Reinforce
- ➢ Differentiated Math Center Activities

Extend
- ➢ Enrichment Activities

Independent Learning
- ➢ IReady online personalized instruction generated from iReady Diagnostic assessment
- ➢ Fluency and skills practice
- ➢ Interactive Tutorials (Lesson, Prerequisite, or Extend)
- ➢ Math Center Activities
- ➢ Additional Practice Activities
- ➢ Online Fluency Games

Evidence of Student Learning

Formative Assessments:
- ➢ Teacher Observation
- ➢ Games
- ➢ Performance Assessment
- ➢ Anecdotal Records
- ➢ Exit Slips
- ➢ Oral Assessment/Conferencing
- ➢ Portfolios/Journals
- ➢ Daily Classwork
- ➢ Pre-Assessment

Summative Assessments
- ➢ Unit Tests
- ➢ Quizzes
- ➢ Writing Samples

Benchmark Assessments:
- ➢ Unit Assessments
- ➢ Benchmark Assessments
- ➢ Aimsweb Early Numeracy

Alternative Assessments
- ➢ Portfolio review
- ➢ Anecdotal Notes

Performance Tasks:
- ➢ Project Based Learning Activity
- ➢ Math In Action
- ➢ Performance Task

Suggested Options for Differentiation and Modifications

Special Education

- Follow all IEP modifications.
- Use visuals, manipulatives, and graphic supports.
- Pre-teach and review key vocabulary.
- Provide summaries, word banks, and visual glossaries.
- Use small-group instruction.
- Offer peer tutoring or a "buddy."
- Read aloud directions; use choral reading, chants, or songs when appropriate.
- Provide preferential seating.
- Allow extra time on tasks.
- Accept oral or dictated responses.
- Shorten or modify assignments/questions.
- Use large-print, Braille, or digital text with audio options.
- Provide scribes or augmentative communication systems as needed.

Students with 504 Plans

- Follow the 504 plan.
- Provide extra time on assignments/tests.
- Offer small-group settings.
- Accept oral or dictated responses.
- Use large-print, Braille, or digital text.
- Provide a scribe or communication device if needed.

Students at Risk of School Failure

- Use visuals and hands-on supports.
- Pre-teach key vocabulary and concepts.
- Provide small-group instruction.
- Read aloud directions and model steps.
- Use peer tutoring or a supportive "buddy."
- Offer chants, songs, and repetition for reinforcement.
- Provide preferential seating.

Gifted and Talented

- Ask open-ended and higher-order questions.

- Encourage problem-solving, discovery, and creativity.
- Provide extension activities based on interests.
- Offer advanced or leveled materials.
- Use flexible grouping by ability or interest.
- Include enrichment centers, puzzles, or concept maps.
- Provide choice in assignments.
- Incorporate problem-solving simulations.
- Debrief to reflect on learning.

Multilingual Learners

- Collaborate with ESL/MLL specialists.
- Provide small-group instruction.
- Pre-teach vocabulary; label classroom items.
- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
- Provide sentence and speaking frames.
- Allow oral responses and extended time.
- Use audio books or recorded directions.

Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
- Provide alternative assignments if needed.
- Use visuals and clear, simple language.
- Collaborate with language and support staff.
- Maintain a nurturing, structured environment.
- Avoid slang; speak slowly and clearly.
- Build positive connections with parents and caregivers.

Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials

- Ready Center Videos
- Ready Prerequisite Lessons
- Differentiated Math Center Activities
- Enrichment Activities
- Brainpop Jr.
- ABCya
- Starfall
- Coolmath
- Youtube videos and songs

Intervention Materials

- Ready Tools for Instruction
- iReady Online My Learning Path
- Fluency and Skills Practice
- Math Coach Centers

Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 6 Overview	
Content Area: Mathematics	
Unit Title: Addition and Subtraction Within 10 (Trimester 3)	**Duration:** 20 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will deepen their understanding of addition and subtraction by working with numbers up to 10. Building on their earlier experiences with adding and subtracting within 5, students will now explore a wider range of numbers and strengthen their ability to solve problems using both concrete tools and symbolic representations. They will use manipulatives, drawings, and number sentences to model and solve problems, helping them connect hands-on experiences to written equations.

A key focus of this unit is learning to solve story problems that involve addition or subtraction. Students will listen to and create real-world situations that require joining or taking away quantities, and they will decide whether to add or subtract based on what is happening in the problem. As they work through these problems, they will represent their thinking with

drawings, equations, and math vocabulary, developing a stronger grasp of mathematical language and reasoning.

Students will also gain confidence in writing equations to show what is happening in a problem. Whether using objects, pictures, or numbers, they will learn to express their thinking clearly and accurately. This not only reinforces their understanding of addition and subtraction but also prepares them to explain and justify their work.

To be ready for this unit, students should already understand the basic concepts of adding and taking away, as well as be familiar with number partners for numbers up to 10. Prior experience with simple addition and subtraction within 5 will support their transition to working with larger numbers and solving more complex problems.

By the end of the unit, children will be able to use a variety of tools to solve addition and subtraction problems within 10, decide which operation a problem requires, and write equations that represent their solutions. These skills are essential for developing a strong foundation in early arithmetic and preparing students for more advanced problem-solving in future learning.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training
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Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
K.CC.A.1 A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count 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)	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ count orally by ones up to 50, beginning at any number. Learning Goal: ➢ Count forward up to 50 starting from numbers other than one
K.CC.A.3 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).	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics.	Concept(s): ➢ Represent the number of objects with a numeral.

	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Students are able to: ➢ write numbers from 0 to 10. Learning Goal: Represent the number of objects with a written numeral up to 10.
K.OA.A.1 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.	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): ➢ Understand addition as putting together and adding to. ➢ Understand subtraction as taking apart and taking from. Students are able to: ➢ create addition events with objects (up to 10). ➢ create addition events with drawings and sounds (up to 10). ➢ create addition events by acting out situations and with verbal explanations. Learning Goal: Create addition events

		with objects, fingers, drawings, sounds (e.g., claps), acting out situations and verbal explanations for sums up to 10
K.OA.A.2 2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem	MP.1 Make sense of problems and persevere in solving them. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	Concept(s): No new concept(s) introduced Students will be able to: ➢ use objects and drawings to represent addition and subtraction. ➢ add and subtract within 10. Learning Goal: Use objects or drawings to represent and solve addition and subtraction word problems (within 10).
New Jersey Student Learning Standards: Interdisciplinary Connections https://www.nj.gov/education/cccs		
L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.		

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

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Core Ideas	Performance Expectations (Identified with Standard Number and statement)
There are ways to keep the things we value safely at home and other places.	9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

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Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide.

	8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Use tools, manipulatives, and number partners to solve addition problems within 10, both in and out of context.
- Recognize and identify equations that represent addition problems.
- Use tools and manipulatives to solve subtraction problems within 10, both in and out of context.
- Recognize and identify equations that represent subtraction problems.
- Draw pictures and write equations to represent addition and subtraction story problems.
- Decide whether to add or subtract in order to solve a given story problem.
- Solve addition story problems with sums up to 10 and subtraction story problems with minuends up to 10.

Language Objectives:

- Explain orally how to solve addition problems within 10 using tools, manipulatives, drawings, and number partners.
- Demonstrate understanding of addition problems by writing or identifying corresponding equations.
- Justify solution steps using information from the problem, supported by sentence frames.
- Explain orally how to solve subtraction problems within 10 using tools, manipulatives, drawings, and number partners.
- Demonstrate understanding of subtraction problems by writing or identifying corresponding equations.
- Use precise mathematical language and sentence frames to clearly explain ideas to others.
- Represent addition and subtraction story problems told aloud by drawing pictures and writing equations.
- Explain whether to add or subtract to solve a story problem using drawings or manipulatives.
- Tell and solve addition and subtraction story problems within 10 confidently.
- Listen actively to others' ideas and restate them clearly using sentence frames.

Unit Enduring Understandings:
Students will know…

- Numbers show how many things there are and can be combined to find answers when we add or subtract.
- We can solve real-world problems by counting, ordering, adding, and subtracting numbers.

Unit Essential Questions:

- What happens when we put groups together or take them apart?
- How can pictures and objects help us solve addition and subtraction problems?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

Whole Group Instruction

- Session Activities
  Number Sense Routines - Students strengthen their ability to work with numbers flexibly and identify mathematical concepts in the real world
  Explore--Students draw on prior knowledge and make connections to new concepts

Develop--Students develop strategies and understanding through problem solving and discourse
Refine--Students deepen their understanding and strengthen their skills

➢ What Happens In the Classroom

1. Students make sense of problems and attempt their own representations and solution strategies.
2. Hints are provided to students in the form of questions to consider as they solve each problem
3. Students partner with another student to explain their thinking, representations, and solutions. Pair/Share questions in the worktexts support partner conversations.
4. Students make connections between their strategies and those of their partner. They discuss similarities and differences and compare their representations, strategies, and answers
5. The teacher circulates to assess student understanding and provide differentiated support. The teacher observes student thinking and student work.
6. Whole group discussion allows for students to show their thinking

Try-Discuss-Connect Routine

Try
- Make sense of the problem
- Solve and support your thinking

Discuss
- Share your thinking with a partner
- Compare Strategies

Connect
- Make connections and reflect on what you have learned
- Apply your thinking to a new problem

Resources:

Ready Classroom Teacher Toolkit
- ➢ Instruction and Practice
- ➢ Editable Powerpoint
- ➢ Interactive Tutorial
- ➢ Student Worktext
- ➢ Discourse Cards
- ➢ Digital Manipulatives
- ➢ Math Journal
- ➢ Lesson Vocabulary Activities
- ➢ Unit Game
- ➢ Exit Ticket

Small Group Differentiation

Prepare
- ➢ Ready Prerequisite Lessons

Reteach
- ➢ Tools for Instruction

Reinforce
- ➢ Differentiated Math Center Activities

Extend
- ➢ Enrichment Activities

Independent Learning
- ➢ IReady online personalized instruction generated from iReady Diagnostic assessment
- ➢ Fluency and skills practice
- ➢ Interactive Tutorials (Lesson, Prerequisite, or Extend)
- ➢ Math Center Activities
- ➢ Additional Practice Activities
- ➢ Online Fluency Games

Evidence of Student Learning

Formative Assessments:
- ➢ Teacher Observation
- ➢ Games
- ➢ Performance Assessment
- ➢ Anecdotal Records
- ➢ Exit Slips
- ➢ Oral Assessment/Conferencing
- ➢ Portfolios/Journals
- ➢ Daily Classwork
- ➢ Pre-Assessment

Summative Assessments
- ➢ Unit Tests
- ➢ Quizzes
- ➢ Writing Samples

Benchmark Assessments:
- ➢ Unit Assessments
- ➢ Benchmark Assessments
- ➢ Aimsweb Early Numeracy

Alternative Assessments
- ➢ Portfolio review
- ➢ Anecdotal Notes

Performance Tasks:
- ➢ Project Based Learning Activity
- ➢ Math In Action
- ➢ Performance Task

Suggested Options for Differentiation and Modifications

Special Education

- ➢ Follow all IEP modifications.
- ➢ Use visuals, manipulatives, and graphic supports.
- ➢ Pre-teach and review key vocabulary.
- ➢ Provide summaries, word banks, and visual glossaries.
- ➢ Use small-group instruction.
- ➢ Offer peer tutoring or a "buddy."
- ➢ Read aloud directions; use choral reading, chants, or songs when appropriate.
- ➢ Provide preferential seating.
- ➢ Allow extra time on tasks.
- ➢ Accept oral or dictated responses.
- ➢ Shorten or modify assignments/questions.
- ➢ Use large-print, Braille, or digital text with audio options.
- ➢ Provide scribes or augmentative communication systems as needed.

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- ➢ Follow the 504 plan.
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Students at Risk of School Failure

- ➢ Use visuals and hands-on supports.
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- ➢ Provide small-group instruction.
- ➢ Read aloud directions and model steps.
- ➢ Use peer tutoring or a supportive "buddy."
- ➢ Offer chants, songs, and repetition for reinforcement.
- ➢ Provide preferential seating.

Gifted and Talented

- ➢ Ask open-ended and higher-order questions.
- ➢ Encourage problem-solving, discovery, and creativity.

- Provide extension activities based on interests.
- Offer advanced or leveled materials.
- Use flexible grouping by ability or interest.
- Include enrichment centers, puzzles, or concept maps.
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- Collaborate with ESL/MLL specialists.
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- Use visuals, gestures, and picture supports.
- Pair words with movements or objects.
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Diversity and Inclusion

- Respect and include cultural traditions.
- Involve families in learning.
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Supplemental Resources

Instructional Materials

- Ready Math
  - Lesson slides
  - Student pages
- Manipulatives
- Teacher Toolkit

Supplemental Materials

- Ready Center Videos

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- Fluency and Skills Practice
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Teacher Notes

OCEAN ACADEMY CHARTER SCHOOL Unit 7 Overview	
Content Area: Mathematics	
Unit Title: Teen Numbers and Shapes (Trimester 3)	**Duration:** 19 Days
Target Course/Grade Level: Kindergarten	

Introduction/Unit Focus:

In this unit, children will explore the structure of teen numbers and begin to build objects using two-dimensional and three-dimensional shapes. The primary focus is on understanding that teen numbers, ranging from 11 to 19, are made up of a group of ten ones and some additional ones. Through hands-on activities, students will learn to compose and decompose teen numbers, recognizing that each one can be broken apart into 10 and a remaining quantity. They will also begin writing equations to represent these compositions and decompositions, helping them make the connection between quantity and symbolic notation.

As students develop their understanding of teen numbers, they will use tools such as manipulatives, ten-frames, and number sentences to model how teen numbers are built. These activities reinforce the concept of place value and support the development of number

sense as students learn to see teen numbers as composed of two parts, ten and some more ones.

In addition to their work with numbers, students will begin to explore shape composition. They will learn to identify shapes as either flat (two-dimensional) or solid (three-dimensional), and use those shapes to build pictures and models. By arranging shapes to form new, larger shapes, students will develop spatial reasoning and gain a deeper understanding of how simple forms combine to create more complex ones. Whether working with paper cutouts or building blocks, students will use appropriate math vocabulary to describe their constructions and the shapes involved.

To be successful in this unit, students should already be comfortable counting sets of up to 10 objects and understand that combining groups results in a larger total. These foundational skills will support their ability to compose and decompose numbers and manipulate shapes with purpose.

By the end of the unit, children will understand the structure of teen numbers as ten ones and some more ones, represent this understanding with equations, and identify and build with both flat and solid shapes. These experiences support the development of early place value concepts and geometric thinking, both of which are essential for future math learning.

Disciplinary Concepts for the Unit

Standard 9.1 Personal Financial Literacy
This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

Standard 9.2 Career Awareness, Exploration, Preparation and Training
This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

Standard 9.4 Life Literacies and Key Skills
This standard outline key literacies and technical skills such as critical thinking, global and cultural awareness, and technology literacy* that are critical for students to develop to live and work in an interconnected global economy.

Standard 8.1 Computer Science
Computer Science outlines a comprehensive set of concepts and skills, such as data and analysis, algorithms and programming, and computing systems.

Standard 8.2 Design Thinking
Technology, outlines the technological design concepts and skills essential for technological and engineering literacy. The framework design includes Engineering Design, Ethics and Culture, and the Effects of Technology on the Natural world among the disciplinary concepts

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocide in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

Diversity and Inclusion: C.18A:35-4.36a Curriculum to include instruction on diversity and inclusion.

The instruction shall:

(1) highlight and promote diversity, including economic diversity, equity, inclusion, tolerance, and belonging in connection with gender and sexual orientation, race and ethnicity, disabilities, and religious tolerance;

(2) examine the impact that unconscious bias and economic disparities have at both an individual level and on society as a whole; and

(3) encourage safe, welcoming, and inclusive environments for all students regardless of race or ethnicity, sexual and gender identities, mental and physical disabilities, and religious beliefs.

Asian Americans and Pacific Islanders (AAPI)
Ensures that the contributions, history, and heritage of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416).

21st Century Themes and Skills

“Twenty-first century themes and skills” means themes such as global awareness; financial, economic, business, and entrepreneurial literacy; civic literacy; health literacy; learning and innovation skills, including creativity and innovation, critical thinking and problem solving, and communication and collaboration; information, media, and technology skills; and life and career skills, including flexibility. Career readiness, life literacies, and key skills education provides students with the necessary skills to make informed career and financial decisions, engage as responsible community members in a digital society, and to successfully meet the challenges and opportunities in an interconnected global economy.”

Focus Standards (Major Standards) https://www.nj.gov/education/cccs

Content Standards: New Jersey Student Learning Standards for Mathematics	Suggested Standards for Mathematical Practice	Critical Knowledge & Skills
K.CC.A.1* A. Know number names and the count sequence. 1. Count to 100 by ones and by tens.	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): ➢ Number names and the count sequence Students are able to: ➢ count orally by ones ➢ count orally by tens Learning Goal: Count 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)	MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure. MP.8 Look for and express regularity in repeated reasoning.	Concept(s): No new concept(s) introduced Students will be able to: ➢ count orally by ones up to 50, beginning at any number. Learning Goal: ➢ Count forward up to 50 starting from numbers other than one
K.CC.A.3 3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with	MP.1 Make sense of problems and persevere in solving them MP.4 Model with mathematics.	Concept(s): ➢ Represent the number of

0 representing a count of no objects).	MP.5 Use appropriate tools strategically. MP.6 Attend to precision. MP.7 Look for and make use of structure.	objects with a numeral. Students are able to: ➢ write numbers from 0 to 10. Learning Goal: Represent the number of objects with a written numeral up to 10.
K.NBT.A.1* A. Work with numbers 11–19 to gain foundations for place value. 1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically. MP.7 Look for and make use of structure.	Concept(s): ➢ Numbers from 11 to 19 can be represented as one group of ten *ones* and another group containing fewer than ten *ones*. Students are able to: ➢ compose and decompose numbers from 11 to 19 into a group of ten *ones* and another group of one(s). ➢ use the term *ones* to describe the number of objects in each group. ➢ record each composition or decomposition

		using objects and drawings. ➢ record each composition or decomposition by a drawing or equation. Learning Goal: Compose and decompose numbers from 11 to 19 into a group of ten and one(s) with or without manipulatives. Record each composition or decomposition through a drawing or equation.
K.G.B.4 B. Analyze, compare, create, and compose shapes. 4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics.	Concept(s): ➢ Orientation does not alter attributes or size. ➢ Shapes may have sides of unequal or equal length. ➢ Shapes may or may not have the same number of sides or ‘corners’. Students are able to: ➢ compare two- and three- dimensional shapes in different sizes and in different orientations and identify similarities and differences.

		➢ compare parts of two- and three-dimensional shapes [e.g. number of sides, number of vertices (corners)]. ➢ compare attributes of two- and three-dimensional shapes [e.g. sides have equal length.] ➢ use informal language to describe similarities, differences, parts, and other attributes when comparing two-and three-dimensional shapes, in different sizes and orientations. Learning Goal: Use informal language to describe similarities, differences, parts number of sides, number of corners), and other attributes (having sides of equal length) when comparing two- and three- dimensional shapes, in different sizes and orientations.
K.G.B.5 5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively.	Concept(s): ➢ Basic shapes exist in real world objects. Students are able to:

	MP.3 Construct viable arguments and critique the reasoning of others. MP.5 Use appropriate tools strategically.	➢ recognize basic shapes in the real world. ➢ use objects (clay, sticks, etc) to model shapes. ➢ model shapes in the world by drawing shapes. Learning Goal: Model shapes in the world by building and drawing shapes.
K.G.B.6 6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	MP.1 Make sense of problems and persevere in solving them. MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments and critique the reasoning of others. MP.4 Model with mathematics. MP.5 Use appropriate tools strategically.	Concept(s): ➢ Shapes can be combined to make larger shapes. Students are able to: ➢ compose simple shapes to form larger shapes. Learning Goal: Compose simple shapes to form larger shapes.
New Jersey Student Learning Standards: Interdisciplinary Connections **https://www.nj.gov/education/cccs**		
L.VL.K.2. With prompting and support, ask and answer questions to help determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. A. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). B. Use the most frequently occurring affixes (e.g., -ed, -s, -ing) as a clue to the meaning of an unknown word.		

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

A. Introduce a topic.
B. Develop the topic with at least two facts or other information and examples related to the topic, including pictures.

SL.PE.K.1. Participate in collaborative conversations with diverse partners about kindergarten topics and texts with peers and adults in small and larger groups.

A. Follow agreed-upon norms for discussions (e.g., listening to others with care and taking turns speaking about the topics and texts under discussion).
B. Continue a conversation through multiple exchanges.

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New Jersey Student Learning Standards: Career Readiness, Life Literacies, and Key Skills	
Core Ideas	**Performance Expectations (Identified with Standard Number and statement)**
There are ways to keep the things we value safely at home and other places.	9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them
There are actions an individual can take to help make this world a better place.	9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.
New Jersey Student Learning Standards: Computer Science and Design Thinking	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.	8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.1.2.CS.2: Explain the functions of common software and hardware components of computing systems. 8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others

	8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.AP.4: Break down a task into a sequence of steps.

New Jersey Student Learning Standards: Climate Change Mandate	
Core Ideas	**Performance Expectations (Identified with Standard Number and Statement)**
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Digital tools can be used to display data in various ways.	9.4.2.IML.2: Represent data in a visual format to tell a story about the data

Knowledge and Skills

Unit Learning Targets (Objectives):
Students will be able to…

Content Objectives:

- Compose and decompose teen numbers into 10 ones and some more ones.
- Understand that teen numbers are always made up of 10 ones plus some additional ones.
- Identify shapes as either flat (two-dimensional) or solid (three-dimensional).
- Create pictures using two-dimensional shapes and build objects with three-dimensional shapes.
- Make connections between concrete objects, drawings, and abstract representations (equations) of teen numbers.
- Write equations to represent the composition and decomposition of teen numbers.

Language Objectives:

- Follow oral directions to compose or decompose teen numbers using objects or drawings grouped as 10 ones and some more ones.
- Use academic vocabulary to describe teen numbers as composed of 10 ones plus additional ones.
- Clearly explain ideas with examples, speaking audibly, and using models and drawings to support explanations.
- Describe shapes as flat or solid using precise mathematical language.

- ➢ Explain the process of putting together two-dimensional shapes to create pictures and three-dimensional shapes to build objects.
- ➢ Demonstrate active listening through engaged body language and by asking clarifying questions.
- ➢ Describe the relationships between objects, drawings, and equations that represent teen numbers.
- ➢ Use sentence frames to explain how to compose and decompose teen numbers clearly.
- ➢ Agree with and build on others' ideas by sharing related examples and adding details.

Unit Enduring Understandings:
Students will know…

- ➢ The numbers from 11 to 19 are called teen numbers.
- ➢ Teen numbers are made by combining 10 ones with extra ones.

Unit Essential Questions:

- ➢ Why do we split numbers into tens and ones?
- ➢ What does place value mean?
- ➢ How can pictures and objects help us make and break apart numbers from 11 to 19?

Instructional Plan

Ready Classroom Mathematics uses a discourse-based instructional routine. Lessons are divided into Explore, Develop, and Refine sessions where students engage in a Try-Discuss-Connect routine. Small Group differentiation activities are designed to Prepare, Reteach, Reinforce, or Extend the learning. Independent Learning Activities personalize instruction to all learners.

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