Grade 1 Mathematics Curriculum Overview

Grade 1 mathematics is taught in twelve Chapters throughout the school year. The first grade curriculum is heavily based in forming a foundation in fact fluency within 20, and adding and subtracting numbers up to 120. There is also a large focus in place value of numbers, geometric shapes, and measurement. Each chapter involves the use of hands on math manipulatives to provide a concrete example for the students to grasp before moving to a more abstract understanding of each topic. By following the sequence and doing hands on math activities, the first grade students are taught to apply mathematics in real world situations, as well as meet the New Jersey Student Learning Standards for first grade.

Suggested Course Sequence:

Chapter 1: Addition Concepts (17 days)
Chapter 2: Subtraction Concepts (10 days)
Chapter 3: Addition Strategies (21 days)
Chapter 11: Three-Dimensional Shapes 16.5 days)
Chapter 4: Subtraction Strategies (13 days)
Chapter 5: Addition and Subtraction Relationships (14 days)
Chapter 6: Numbers and Operations in Base Ten (14 days)
Chapter 7: Compare Numbers (7.5 days)
Chapter 8: Two-Digit Addition and Subtraction (12 days)
Chapter 9: Telling Time (5 days)
Chapter 12: Two-Dimensional Shapes (7 days)
Chapter 9: Linear Measurement (10 days)

Prerequisite: Kindergarten Mathematics

Content Area: Mathematics

Unit Title: Chapter 1: Addition Concepts

Grade Level: 1

Unit Summary:

Develop understanding of addition within 20.

Interdisciplinary Connections: Language Arts ,Technology

21st Century

Themes and Skills:

Critical Thinking

Problem Solving

Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.OA.A	A. Represent and solve problems involving addition and subtraction.
1.OA.A.1	1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.A.2	2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.B	B. Understand and apply properties of operations and the relationship between addition and subtraction.
1.OA.B.3	3. Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
1.OA.C	C. Add and subtract within 20
1.OA.C.5	5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.C.6	6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D	D. Work with addition and subtraction equations.
1.OA.D.7	7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
1.OA.D.8	8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose

	to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	 1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	 2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How do pictures show adding to? ● How do you model adding to a group?	● Represent and solve addition problems ● Draw models to add

● How do you model putting together? ● How do you solve addition number sentences by making a model? ● What happens when you add zero to a number? ● Why can you add addends in any order? ● How can you show all the ways to make a number? ● Why are some addition facts easy to add?	● Represent numbers using pictures ● Numbers can be added in any order ● Break apart numbers in different ways

Unit Learning Targets/Objectives:
Students will…

- Represent and solve problems involving addition
- Develop understanding of addition
- Use strategies for addition within 20

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):
SGO Test
Chapter 1 Assessment
Chapter 1 Performance Assessment Link

Resources/Materials:
First Grade Student Learning Standrds: **https://www.state.nj.us/education/cccs/2016/math/g01.pdf**
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

- Special Education Students/504
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Intro Chapter 1	Introduce Chapter 1 concepts and vocabulary Read *Teddy Bear Counting* Book	1 day (40 minutes)
Lesson 1.1 Use Pictures to Add	Use pictures to "add to" and find sums	1 day (40 minutes)
SGO Test 1/2	Assess knowledge and understanding of Kindergarten standards	1 day (40 minutes)
SGO Test 1/2	Assess knowledge and understanding of Kindergarten standards	1 day (40 minutes)
Lesson 1.2 Model Adding to	Use concrete items to solve "adding to" addition problems	1 day (40 minutes)
Lesson 1.3 Model Putting Together	Use concrete objects to solve "putting together" addition problems	1 day (40 minutes)
Tens Frame	Use tens frames to model numbers 0-10 Use tens frames to "add to" a number to find a sum	1 day (40 minutes)
Tens Frame	Use tens frames to solve "putting together" addition problems	1 day (40 minutes)
Lesson 1.5 Add Zero	Understand and apply to Additive Property for Addition	1 day (40 minutes)
Lesson 1.6 Add in Any Order	Explore the commutative Property of Addition	1 day (40 minutes)
Put Together Numbers to 10	Model and record all the ways to put together numbers within 10. (Day 1 w/ Manipulatives) Record number sentences	2 Days (80 minutes)
Lesson 1.8 Addition to 10 (Tens Frame)	Build fluency to addition within 10.	1 day (40 minutes)
Chapter 1 Assessment	Assess knowledge and understanding of Chapter 1 material	1 day (40 minutes)
Crayon Counting Book	Read and model numbers and patterns throughout book (use cubes to model)	1 day (40 minutes)
Balance Scale (Equal Sign)	Use the balance scale to model simple addition number sentences that are true and not true. Understand the equal sign can go in different places in a number sentence	1 day (40 minutes)
Part/Part Whole Model	Use a bar model to represent addition number sentences.	1 day (40 minutes)

Teacher Notes:

Additional Resources
Click links below to access additional resources used to design this unit:
First Grade Student Learning Standrds:
https://www.state.nj.us/education/cccs/2016/math/g01.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Content Area: Mathematics

Unit Title: Chapter 2: Subtraction Concepts

Grade Level: 1

Unit Summary:
Develop understanding of subtraction within 20.
Interdisciplinary Connections: Language Arts
21st Century
Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.OA	A. Represent and solve problems involving addition and subtraction.
1.OA.A.1	1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.B	B. Understand and apply properties of operations and the relationship between addition and subtraction.
1.OA.B.3	3. Apply properties of operations as strategies to add and subtract. 3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
1.OA.B.4	4. Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8
1.OA.C	C. Add and subtract within 20. 5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.C.6	6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D	D. Work with addition and subtraction equations. 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
1.OA.D.8	

	8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words.
8.1.2.A	4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C	1. Collaborate with peers by participating in interactive digital games or activities.
8.1.2.C	

	1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) 9.2.4.A	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How do you model taking apart? ● How do you show taking apart from a group? ● How do you subtract to compare?	● Use subtraction to take apart from a group ● Use subtraction to compare groups ● Draw pictures to model subtraction

Unit Learning Targets/Objectives:

Students will…

- Use models to show subtraction
- Create number sentences to show subtraction
- Use models to compare numbers to subtract
- Build fluency for subtraction within 10

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Mid Chapter Test

Chapter 3 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf

https://www-k6.thinkcentral.com/ePC/start.do

ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities

- Allow errors in speaking
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions
- Accept participation at any level
- Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Lesson 2.1 Use Pictures to Show Taking From	Use pictures to show "taking from" and differences	1 day (40 minutes)
Lesson 2.2 Model Taking From	Use concrete objects to solve "Taking from" subtraction problems.	1 day (40 minutes)
Lesson 2.3 Model Taking Apart	Use concrete objects to solve"taking apart" subtractions problems	1 day (40 minutes)
Lesson 2.4 Model Subtraction	Solve taking from and taking apart subtraction problems using the strategy make a model	1 day (40 minutes)
Lesson 2.5 Use Pictures and Subtraction to Compare	Compare pictorial groups to understand subtraction	1 day (40 minutes)
Lesson 2.6 Subtract to Compare	Model and compare groups to show the meaning of subtraction	1 day (40 minutes)
Lesson 2.7 Subtract All of Zero	Identify how many are left when subtracting all of zero.	1 day (40 minutes)
Lesson 2.8 Take Apart Numbers	Model and record all of the ways to take apart numbers within 10.	1 day (40 minutes)
Lesson 2.9 Subtraction from 10 or Less	Build fluency for subtraction within 10.	1 day (40 minutes)
Chapter 2 Assessment	Assess knowledge and understanding of Chapter 2 skills and concepts	1 day (40 minutes)

Teacher Notes:

Additional Resources
Click links below to access additional resources used to design this unit:
First Grade Student Learning Standrds: **https://www.state.nj.us/education/cccs/2016/math/g01.pdf**
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Content Area: Mathematics

Unit Title: Chapter 3: Addition Strategies

Grade Level: 1

Unit Summary:
Understand adding numbers. Use different addition strategies to add within 20.
Interdisciplinary Connections: Language Arts
21st Century
Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.OA.A	A. Represent and solve problems involving addition and subtraction.
1.OA.A.1	1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.A.2	2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.B	B. Understand and apply properties of operations and the relationship between addition and subtraction.
1.OA.B.3	3. Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
1.OA.B.4	4. Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8
1.OA.C	C. Add and subtract within 20.

1.OA.C.5 **1.OA.C.6**	5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D **1.OA.D.7** **1.OA.D.8**	D. Work with addition and subtraction equations. 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2. 8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.
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21st Century themes and skills (standard 9)	
9.2.4.A	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● What strategies can you use to add facts? ● Why can you add in any order? ● How can you add three numbers?	● Understand relationship between addition and subtraction ● Use strategies to add and subtract

Unit Learning Targets/Objectives:

Students will…

- Develop understandings of addition and subtraction
- Use strategies to add and subtract within 20
  - Doubles
  - Double +1
  - Make a ten to add
  - Draw a quick picture to add
  - Count on
  - Use a number line to add
  - Part/part whole bar model to add
- Add in any order

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Chapter 3 Mid Chapter assessment: Mid Chapter Assessment

Chapter 3 Assessment: Chapter 3 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**
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  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Counting on Modeling	Show counters , then cover and count on	1 day (40 minutes)
Count on number line	Roll die then count on	1 day (40 minutes)
Even/Odd Hundred Chart	Count on using hundred chart Start at different numbers at cout on Identify Even and odd numbers	2 days
Intro Penny and Nickel: Race to a Nickel Game	Understand value of a penny and nickel Identify a penny and nickel	1 day (40 minutes)
Doubles	Use doubles as a strategy to solve addition facts with sums within 20.	4 days
Double +1	Use doubles +1 as a strategy to solve addition facts with sums within 20.	1 day (40 minutes)
Mid Chapter Checkpoint	Assess knowledge and understanding of skills taught thus far in Chapter.	1 day (40 minutes)

Break apart Sum into Doubles/ Doubles +1 Up to 20	Use doubles as a strategy to break apart sums into number sentences.	1 day (40 minutes)
Break apart Sum Part/Part Whole	Use a bar model to model breaking apart sums.	1 day (40 minutes)
Break apart sum with Number Sentence only	Create a number sentence using only the sum.	1 day (40 minutes)
Chapter 3 Formative Assessment	Informally assess knowledge and understanding of Chapter 3 material.	1 day (40 minutes)
Domino Addition Read Aloud	Create doubles facts using dominoes.	1 day (40 minutes)
3.7-3.9 Make a 10 (No Book) USe ten frames	Use a ten frame to add 10 and an addend less than 10.	3 days
Grid Sums	Solve for a missing addend when given a sum. Use addition strategies to solve for a missing addend.	1 day (40 minutes)
Chapter 3 Assessment	Assess knowledge and understanding of Chapter 3 skills and concepts	1 day (40 minutes)

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit:

First Grade Student Learning Standrds:**https://www.state.nj.us/education/cccs/2016/math/standards.pdf**

https://www-k6.thinkcentral.com/ePC/start.do

ixl.com/signin/midlandpark

Content Area: Mathematics
Unit Title: Chapter 11: 3-Dimensional Shapes
Grade Level: 1

Unit Summary:
To reason with 3-dimensional shapes and their attributes.
Interdisciplinary Connections: Language Arts
21st Century
Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.G.A	A. Reason with shapes and their attributes.
1.G.A.1	1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
1.G.A.2	2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.
1.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).
1.G.B.5	5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes. 6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and

	devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	 1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	 2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How can you identify and describe three-dimensional shapes ● How can you combine three-dimensional shapes to make new shapes? ● How can you use a combined shape and make a new shape? ● What two-dimensional shapes are on three-dimensional shapes?	● Compose and decompose two-dimensional and three-dimensional geometric shapes.

Unit Learning Targets/Objectives:

Students will...

- Reason with shapes and their attributes
- Identify and describe three-dimensional shapes according to defining attributes
- Compose and decompose new shapes
- Find two-dimensional shapes on three-dimensional shapes
- Review and identify a nickel and penny
- Show fluency for addition to 10 (make a fast ten)

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation
- 3D shape classroom Scavenger hunt

Summative/Benchmark Assessment(s):

Chapter 11 Assessment
Mid Year Assessment https://drive.google.com/open?id=1Z75K2PBuN25VDGbHo3c3oVfMDLEGJqx7Kd9x6iMutC0

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
11.1 3-D Shapes	Identify and describe three-dimensional shapes according to defining attributes	1/2 day (20 minutes)

11.2 and 11.3 Combine and Make new 3D Shapes	Compose a new shape by combining three-dimensional shapes. Use composite three-dimensional shapes to build new shapes.	1 day (40 minutes)
11.4 Take Apart 3D Shapes 11.5 Find 2D shapes on 3D Shapes	Identify three-dimensional shapes used to build a shape using the strategy act it out. Identify two-dimensional shapes on three-dimensional shapes.	1 day (40 minutes)
Chapter 11 Assessment	Assess knowledge and understanding of Chapter 11 material.	1 day (40 minutes)
Money Games	Review and practice "Race to a nickel " game. Review identifying and value or nickel and penny.	3 days
3D Shape Activities	Look around the classroom and real life situations for three-dimensional shapes.	3 days
Fast 10 Games	Use ten frames to practice fast ten addition strategies.	5 days
Mid Year Assessment	Assess knowledge and understanding of material learned thus far (Ch.1,2,3,11)	2 days (40 minutes)
Teacher Notes: **Additional Resources** https://www.state.nj.us/education/cccs/2016/math/standards.pd		

Content Area: Mathematics

Unit Title: Chapter 4: Subtraction Strategies

Grade Level: 1

Unit Summary:

Understand subtraction, and subtraction strategies to use to subtract within 20.

Interdisciplinary Connections: Language Arts

21st Century

Themes and Skills:

Critical Thinking

Problem Solving

Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	**Statement:**
1.OA.1	A. Represent and solve problems involving addition and subtraction. 1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by

	using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.B.3	B. Understand and apply properties of operations and the relationship between addition and subtraction. 3. Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties} 4. Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.
1.OA.C.6	C. Add and subtract within 20. 5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). 6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D.7	D. Work with addition and subtraction equations. 7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2. 8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity.

	Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How do you solve subtraction problems? ● What strategies can you use to subtract? ● How can an addition fact help you solve a related subtraction fact? ● How can you make a ten to help you subtract?	● Subtraction and addition relationships ● Make a ten to subtract ● Use addition to help you subtract ● Count back to subtract

Unit Learning Targets/Objectives:

Students will…

- Use count back as a strategy to subtract
- Use recall of addition facts to subtract numbers within 20
- Use make a ten as a strategy to subtract
- Solve subtraction problems by drawing or acting out the problem

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Mid Chapter Checkpoint

Chapter 4 Assessment Chapter 4 Online Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf

https://www-k6.thinkcentral.com/ePC/start.do

ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Intro Chapter 4/ New Calendar AM/PM	Introduce chapter 4 vocabulary,skills, and concepts Show what you know about subtraction	1 day (40 min)
Lesson 4.1 Count Back using a Number Line/ Spinner game	Use count back 1, 2, or 3 as a strategy to subtract Use a number line to count back	2 day (80 min)

Lesson 4.2 Think Addition to Subtract	Recall addition facts to subtract numbers within 20	2 Days (80 min)
Lesson 4.3 Use Think Addition to Subtract	Use addition as a strategy to subtract numbers within 20	1 day (40 min)
Mid Chapter Checkpoint (in book)	Assess understanding of subtraction strategies taught thus far in chapter	1 day (40 min)
Use 10 to subtract (cubes and template)	Use make a ten as a strategy to subtract	1 day (40 min)
Use 10 to Subtract (cubes and template) Lesson 4.4 + 4.5	Use make a ten as a strategy to subtract Subtract by breaking apart to make a ten	1 day (40 min)
4.6 Word Problems using manipulative (Use problems from book)	Solve subtraction problem situations using manipulatives to act it out	1 day (40 min)
Word Problems using drawing	Solve subtraction problem situations using drawings to act it out	1 day (40 min)
Chapter 4 Review	Review understanding and progress of Chapter 4 material	1 day (40 min)
Chapter 4 Assessment	Assess understanding of progress of Chapter 4 material	1 day (40 min)

Teacher Notes:

Additional Resources
Click links below to access additional resources used to design this unit:
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
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Content Area: Mathematics

Unit Title: Chapter 5: Addition and Subtraction Relationships

Grade Level: 1

Unit Summary:
Understand the relationship between addition and subtraction to help understand facts within 20.

Interdisciplinary Connections:
Language Arts

21st Century
Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.OA	A. Represent and solve problems involving addition and subtraction.
1.OA.A.1	1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.A.2	2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.
1.OA.B	B. Understand and apply properties of operations and the relationship between addition and subtraction.
1.OA.B.3	3. Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.) {Students need not use formal terms for these properties}
1.OA.B.4	4. Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.
1.OA.C	C. Add and subtract within 20.
1.OA.C.5	5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
1.OA.C.6	6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).
1.OA.D	D. Work with addition and subtraction equations.
1.OA.D.7	7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
1.OA.D.8	8. Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason.

	Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	 1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	 2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**

● How can relating addition and subtraction help you to learn and understand facts within 20? ● How do addition and subtraction undo each other? ● What is the relationship between related facts? ● How can you find missing numbers in related facts?	● Relationship between addition and subtraction ● Identify related facts

Unit Learning Targets/Objectives:

Students will…

- Represent and solve problems involving addition and subtraction
- Develop understanding of addition, subtraction, and strategies for addition and subtraction within 20
- Develop understanding of relationship between addition and subtraction

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Mid Chapter Checkpoint in book

Chapter 5 Assessment Chapter 5 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf

https://www-k6.thinkcentral.com/ePC/start.do

ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
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  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Intro Chapter 5/Related Facts	Model concrete related facts (Use word problems/make up problems on own)	1 day (40 min)
Lesson 5.1 Add or Subtract	Solve addition and subtraction problem situations using the strategy make a model	1 day (40 min)
Lesson 5.2 Record Related Facts	Record related facts within 20	1 day (40 min)
Lesson 5.3 Identify Related Facts	Identify related addition and subtraction facts within 20	1 day (40 min)
Lesson 5.4 Use addition to Check subtraction	Apply the inverse relationship of addition and subtraction	1 day (40 min)
Mid chapter Checkpoint/ Lesson 5.5 Missing Numbers	Assess understanding of chapter 5 skills thus far. Use related facts to determine unknown numbers	1 day (40 min)
Lesson 5.6 Use Related Facts	Use related facts to subtract	1 day (40 min)
Lesson 5.7 Choose an Operation	Choose an operation and strategy to solve an addition or subtraction word problem	1 day (40 min)
Read Aloud 12 Ways to Get to 11 (array paper)	Model and record all of the ways to make 11	1 day (40 min)
Lesson 5.8 Ways to Make numbers to 20	Represent equivalent forms of numbers using sums and differences within 20	1 day (40 min)
Lesson 5.9 Equal and Not Equal	Determine if an equation is true or false	1 day (40 min)

Lesson 5.10 Basic Facts to 20	Add and subtracts facts within 20 and demonstrate fluency for addition and subtraction within 10.	1 day (40 min)
Chapter 5 Review	Review skills and strategies taught in Chapter 5	1 day (40 min)
Chapter 5 Assessment	Assess understanding and progress of skills taught in Chapter 5	1 day (40 min)

Teacher Notes:
Additional Resources
Click links below to access additional resources used to design this unit:

Content Area: Mathematics

Unit Title: Chapter 6: Numbers and Operations in Base Ten

Grade Level: 1

Unit Summary:
Develop understanding of whole number relationships and place value, including grouping in tens and ones
Interdisciplinary Connections:
Language Arts
21st Century Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	**Statement:**
1.NBT	A. Extend the counting sequence.
1.NBT.A.1	1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.B **1.NBT.B.2**	B. Understand place value. 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: a. 10 can be thought of as a bundle of ten ones — called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master

	conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
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21st Century themes and skills (standard 9) **9.2.4.A**	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How do you use place value to model, read and write numbers to 120?	● Develop understanding of whole number relationships and place value, including grouping in tens and ones

● What ways can you use tens and ones to model numbers to 120? ● How do numbers change as you count by tens to 120?	● Count to 120 starting at any number less than 120 ● Understand that numbers with two digits represent amounts of tens and ones ● Use place value to add and solve two digit word problems

Unit Learning Targets/Objectives:

Students will…

- Develop understanding of whole number relationships and place value, including grouping in tens and ones
- Count to 120
- Continue a sequence of numbers counting by ones and tens
- Model numbers from 1-120 using tens and ones

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Mid Chapter Checkpoint in book

Chapter 6 Assessment: Chapter 6 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

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Modifications:

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  - Rephrase questions, directions, and explanations
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- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
100th Day Activities/ Intro Quarter	Celebrate 100th day of school. Show different ways to get to 100. Share different ways to group 100	1 day (40 min)
Lesson 6.1 Count by ones to 120	Count by ones to extend a counting sequence up to 120	1 day (40 min)
Lesson 6.2 Count by tens to 120	Count by tens from any number to extend a counting sequence up to 120	1 day (40 min)
Lesson 6.3 Understand Tens and Ones (w/ double tens frame) no book)	Use models to write and represent equivalent forms of ten and ones	1 day (40 min)
Lesson 6.4 Make tens and ones	Use objects, pictures, and numbers to represent a ten and some ones	
Lesson 6.5/ Mid Chapter Checkpoint	Use objects, pictures, and numbers to represent tens. Assess understanding of skills taught thus far in chapter	1 day (40 min)
Lesson 6.6 Tens and ones to 50	Group objects to show numbers to 50 as tens and ones	1 day (40 min)
Lesson 6.7 Tens and ones to 100	Group objects to show numbers to 100 as tens and ones	1 day (40 min)
Lesson 6.8 Show numbers in different ways (T/F = sign)	Solve problems using the strategy make a model	1 day (40 min)
Lesson 6.9 Model, read, and write numbers from 100 to 110	Read and write numerals to represent a numbers of 100 to 110 objects	1 day (40 min)
Lesson 6.10 Model, read,	Read and write numeral to represent a number of 110 to 120 objects	1 day (40 min)

and write numbers from 110 to 120		
Chapter 6 Review	Review skills taught in Chapter 6	1 day (40 min)
Chapter 6 Assessment	Assess understanding of skills and concepts taught in Chapter 6	1 day (40 min)
Review Quarter	Review and identify quarter, it's value and identifying characteristics	2 days (80 min)

Teacher Notes:

Additional Resources
Click links below to access additional resources used to design this unit:
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Content Area: Mathematics

Unit Title: Chapter 7: Compare Numbers

Grade Level: 1

Unit Summary:
Develop understanding of whole number relationships and place value including groupig in tens and ones. Compare two-digit numbers based on meanings of the tens and ones digits, recording the results of comparsison with the smybols >,<, and =.

Interdisciplinary Connections:
Language Arts

21st Century Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	**Statement:**
1.NBT	B. Understand place value.
1.NBT.B.3	3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
1.NBT.C.5	C. Use place value understanding and properties of operations to add and subtract. 5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
1.OA.D **1.OA.D.7**	D. Work with addition and subtraction equations.

	7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words.
8.1.2.A	4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
8.1.P.C	1. Collaborate with peers by participating in interactive digital games or activities.
8.1.2.C	

	1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) 9.2.4.A	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):

- What ways can you use tens and ones to compare two-digit numbers?
- How can you find 10 more and 10 less than a number?
- How do you use place value to compare numbers?

Unit Enduring Understandings:

- You can use place value to compare numbers
- You can identify numbers that are 10 more and 10 less by using place value

Unit Learning Targets/Objectives:

Students will…

- Model and compare two-digit numbers to determine which is greater
- Model and compare two-digit numbers to determine which is less
- Use the symbols <, >, and = to compare numbers
- Solve problems using the strategy make a model
- Identify numbers that are 10 less or 10 more than a given number

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Chapter 7 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students

- Assign a buddy, same language or English speaking
- Allow errors in speaking
- Rephrase questions, directions, and explanations
- Allow extended time to answer questions
- Accept participation at any level
- Provide extension activities
- Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Chapter 7 Intro	Model objects that are greater than,less than, or equal to using the balance scale	½ day (20 min)
Lesson 7.1 Greater Than	Model and compare two-digit numbers to determine which is greater	1 day (40 min)
Lesson 7.2 Less than	Model and compare two-digit numbers to determine which is is less	1 day (40 min)
Lesson 7.3 Use Symbols to Compare	Use symbols for "is less than" (<), "is greater than" (>), and "is equal to" (=) to compare numbers	1 day (40 min)
Lesson 7.4 Compare Numbers	Solve problems using the strategy make a model	1 day (40 min)
Lesson 7.5 10 less, 10 more	Identify numbers that are 10 less or 10 more than a given number	1 day (40 min)
Chapter 7 Review	Review skills and concepts taught in Chapter 7	1 day (40 min)
Chapter 7 Assessment	Assess understanding and progress of Chapter 7 skills	1 day (40 min)

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit:

Content Area: Mathematics

Unit Title: Chapter 8: Two-Digit Addition and Subtraction

Grade Level: 1

Unit Summary:
Add and subtract two-digit number using knowledge of place value and fact fluency of numbers within 20.
Interdisciplinary Connections:
Language Arts
21st Century Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.OA.C	C. Add and subtract within 20.
1.OA.C.6	6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13
1.NBT.C	C. Use place value understanding and properties of operations to add and subtract. 4
1.NBT.C.4	4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.NBT.C.6	6. Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

	8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How can you add and subtract two-digit numbers? ● What ways can you use tens and ones to add and subtract two-digit number? ● How can you making a ten help you add a two-digit number and a one-digit number?	● You can add and subtract numbers within 100 using your knowledge of place value and facts within 20 ● You can use models to add and subtract

Unit Learning Targets/Objectives:

Students will…

- Add and subtract within 20
- Draw a model to add tens
- Draw a model to subtract tens
- USe a hundred chart to find sums.
- Use concrete models to add ones or tens to a two- digit number
- Make a ten to add a two-digit number and a one-digit number
- Use tens and ones to add two-digit numbers
- Solve and explain two-digit addition word problems using the strategy draw a picture
- Add and subtract within 100, including continued practice with facts within 20

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):
Mid Chapter Checkpoint in book
Chapter 8 Assessment: Chapter 8 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
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ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
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  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
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  - Provide rewards as necessary
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Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Lesson 8.1 Add and Subtract within 20	Add and subtract within 20	1 day (40 min)
Lesson 8.2 Add Tens	Draw a model to add tens	1 day (40 min)

Lesson 8.3 Subtract Tens	Draw a model to subtract tens	1 day (40 min)
Lesson 8.4 Use a Hundred Chart to Add	Use a hundred chart to find sums	1 day (40 min)
Lesson 8.5 Use Models to Add	Use concrete models to add ones or tens to use a two-digit number	1 day (40 min)
Lesson 8.6 Make Ten to Add (Draw Tens frame using our format)*	Make a ten to add a two-digit number and a one-digit number	2 days (80 min)
Lesson 8.7 Use Place Value to Add (use our format for ten frames)	Use tens and ones to add two-digit numbers	1 day (40 min)
Lesson 8.8 Addition Word Problems	Solve and explain two-digit addition word problems using the strategy draw a picture	1 day (40 min)
Lesson 8.9 Practice Addition and Subtraction	Add and subtract within 100, including continued practice with facts within 20.	1 day (40 min)
Chapter 8 Review	Review skills and concepts taught in Chapter 8	1 day (40 min)
Chapter 8 Assessment	Assess understanding and progress of Chapter 8 skills and concepts	1 day (40 min)

Teacher Notes:

Additional Resources
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https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Content Area: Mathematics

Unit Title: Chapter 9: Measure Telling Time

Grade Level: 1

Unit Summary:
Develop understanding of time to the hour and half hour
Interdisciplinary Connections:
Language Arts
21st Century Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.MD	B. Tell and write time.
1.MD.B.3	3. Tell and write time in hours and half-hours using analog and digital clocks.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How can you tell time? ● How can you use the hour and minute hand of a clock to tell time to the hour and to the half hour?	● Develop understanding of time to the hour and half hour ● One hour is 60 minutes ● Half an hour is 30 minutes

Unit Learning Targets/Objectives:

Students will…

- Write times to the hour shown on analog clocks
- Write time to the half hour shown on analog clocks
- Tell times to the hour and half hour using analog and digital clocks
- Use the hour hand to draw and write times on analog and digital clocks

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

Chapter 9 Telling Time Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**

https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
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  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Lesson 9.6 Time to the Hour	Write times to the hour shown on an analog clocks	1 day (40 min)
Lesson 9.7 Time to the Half Hour	Write times to the half hour shown on analog clocks	1 day (40 min)
Lesson 9.8 Tell Time to the Hour and Half Hour	Tell times to the hour and half hour using analog and digital clocks	1 day (40 min)
Lesson 9.9 Practice Time to the Hour and Half Hour	Use the hour hand to draw and write times on analog and digital clocks	1 day (40 min)
Mini Time Assessment	Assess understanding of skills and concepts taught in Chapter 9	1 day (40 min)

Teacher Notes:

Additional Resources

Click links below to access additional resources used to design this unit:

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ixl.com/signin/midlandpark

Content Area: Mathematics

Unit Title: Chapter 12: Two Dimensional Geometry

Grade Level: 1

Unit Summary:
Reason with attributes, compose, and decompose geometric shapes
Interdisciplinary
Connections:
Language Arts
21st Century
Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	**Statement:**
1.G	
	A. Reason with shapes and their attributes. 1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. 2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.4 3. Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

	8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	 1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	 2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How do you sort and describe two dimensional shapes? ● How can you describe two-dimensional shapes? ● How can you identify equal and unequal parts in two-dimensional shapes?	● Reason with shapes and their attributes ● Distinguish between defining attributes: o closed figure o Number of sides o Number of vertices, o Orientation o size ● Partition circles and rectangles into halves and fourths

Unit Learning Targets/Objectives:

Students will…

- Use defining attributes to sort shapes
- Describe attributes of two-dimensional shapes
- Use objects to compose new two-dimensional shapes
- Compose a new shape by combining two-dimensional shapes

- Make new shapes from composite two-dimensional shapes using the strategy act it out
- Decompose combined shapes into shapes
- Decompose two-dimensional shapes into parts
- Identify equal and unequal parts in two-dimensional shapes
- Partition circles and rectangles into two equal shares
- Partition circles and rectangles into four equal shares

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):
Chapter 12 Assessment

Resources/Materials (copy hyperlinks for digital resources)**:**
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

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  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
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- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
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  - Accept participation at any level
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  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Lesson 12.1/12.2 Review Two Dimensional Shapes	Use defining attributes to sort shapes. Describe attributes of two-dimensional shapes	1 day (40 min)

	Use exploragons to build different polygons. Name the number or sides and draw different shapes	
Lesson 12.3 and 12.4 Combine Two-dimensional Shapes	Use objects to compose new two-dimensional shapes. Compose a new shape by combining two-dimensional shapes.	1 day (40 min)
(Skip 12.5) Add in Decomposing Pattern Block Lesson	Use pattern blocks to compose shapes (use 5 piece tangram designs)	1 day (40 min)
Lesson 12.6 Find Shapes in Shapes	Decompose combined shapes into shapes. USe pattern block stickers to create real world designs. Model using tangrams, then use stickers	1 day (40 min)
Lesson 12.7 Take Apart Two-Dimensional Shapes	Decompose two dimensional shapes into parts	1 day (40 min)
Lesson 12.8 and 12.9 Equal or Unequal Parts/Halves	Identify equal and unequal parts in two-dimensional shapes. Partition circles and rectangles into two equal shares/halves	1 day (40 min)
Lesson 12.10 Fourths	Partition circles and rectangles into four equal shares/fourths	1 day (40 min)

Teacher Notes:
Use Geometry Outline Notes from Mary Oates

Additional Resources
Click links below to access additional resources used to design this unit:
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Content Area: Mathematics
Unit Title: Chapter 9: Linear Measurement
Grade Level: 1

Unit Summary:
Measure lengths indirectly and directly by iterating length units
Interdisciplinary Connections:
Language Arts
21st Century Themes and Skills:
Critical Thinking
Problem Solving
Collaboration and Teamwork

Standards (Content and Technology)**:**

CPI#:	Statement:
1.MD	A. Measure lengths indirectly and by iterating length units.
1.MD.A.1 **1.MD.A.2**	1. Order three objects by length; compare the lengths of two objects indirectly by using a third object. 2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.
Career Ready Practices (CRP)	2. Apply appropriate academic and technical skills Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation. 4. Communicate clearly and effectively and with reason. Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome. 6. Demonstrate creativity and innovation. Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization. 8. Utilize critical thinking to make sense of problems and persevere in solving them. Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others. 11. Use technology to enhance productivity. Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring

	new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Educational Technology Standards **8.1.P.A** **8.1.2.A** **8.1.P.C** **8.1.2.C**	1.Use an input device to select an item and navigate the screen 2. Navigate the basic functions of a browser 3. Use digital devices to create stories with pictures, numbers, letters and words. 4. Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums). 1. Collaborate with peers by participating in interactive digital games or activities. 1.Engage in a variety of developmentally appropriate learning activities with students in other classes, schools, or countries using various media formats such as online collaborative tools, and social media
21st Century themes and skills (standard 9) **9.2.4.A**	2. Identify various life roles and civic and work related activities in the school, home, and community 4 .Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Unit Essential Question(s):	**Unit Enduring Understandings:**
● How can you measure length? ● How can you describe length? ● How can you compare the length of objects using measurement?	● Measuring length is iterating a unit ● Measurement can be standard or nonstandard

Unit Learning Targets/Objectives:

Students will…

- Order objects by length
- Use the transitive property to measure indirectly
- Measure length using nonstandard units
- Make a nonstandard measuring tool to measure length
- Measure length using standard units

Formative Assessments:

- Observation
- questioning
- Discussion
- Exit ticket
- Graphic organizer
- Self assessment
- Practice problems
- Visual representations
- Kinesthetic assessments
- Individual Whiteboard participation

Summative/Benchmark Assessment(s):

N/A

Resources/Materials (copy hyperlinks for digital resources)**:**
https://www.state.nj.us/education/cccs/2016/math/standards.pdf
https://www-k6.thinkcentral.com/ePC/start.do
ixl.com/signin/midlandpark

Modifications:

- Special Education/504 Students
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Consult with Case Managers and follow IEP accommodations/modifications
- English Language Learners
  - Assign a buddy, same language or English speaking
  - Allow errors in speaking
  - Rephrase questions, directions, and explanations
  - Allow extended time to answer questions
  - Accept participation at any level
- At-Risk Students
  - Consult with Guidance Counselors and follow I&RS procedures/action plans
  - Consult with classroom teacher(s) for specific behavior interventions
  - Provide rewards as necessary
- Gifted and Talented Students
  - Provide extension activities
  - Build on students' intrinsic motivations

Lesson Name/Topic	Lesson Objective(s)	Time frame (day(s) to complete)
Intro Measurement (iteration, repeat) Snake/Play Dough Measurement	Order objects by length. Create objects of different length using playdough. Use appropriate length vocabulary (short, shorter, shortest, long,longer,longest)	2 Days (80 min)
Day 3 Different Standard unit Measure the Same length (8 ½ x 14 in paper)	Measure the same length using different standard unit (2 cubes, 4 cubes, 5 cubes as the standard units)	1 day (40 min)
Day 4 "How Big is a Foot" read aloud/ Trace feet	Understand the importance of having a standard unit of measure when measuring objects Order objects by shortest to longest	1 day (40 min)
Day 4 (11x17 in paper) Change STandard	Measure the same length using different standard units	1 day (40 min)

unit (with cubes)		
Day 5 1 ft or 3 ft (1 yard) Decide what length to use	Decide which standard unit is appropriate for measuring different lengths	1 day (40 min)
Day 6 Measuring Motors	Use the Transitive property to measure indirectly. Compare the different car lengths to measure	2 days (80 min)
Day 7 Read aloud "Measuring Penny"	Learn how standard and nonstandard measurement can be used in real life situations	1 day (40 min)
Day 8 Stuffed Animal Measurement	Using different standard units of measure, measure the lengths of different parts of a stuffed animals	1 day (40 min)
Day 9 Classroom Scavenger Hunt	Measure items throughout the classroom using standard units of measure	1 day (40 min)
Day 10 "Super Sand Castle Saturday" Read Aloud	Learn how standard and nonstandard measurement can be used in real life situations	1 day (40 min)

Teacher Notes:

Additional Resources

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