Third Grade Mathematics

Chapter One: Place Value

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.NBT.1 -** Use place value understanding to round whole numbers to the nearest 10 or 100.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- use a place-value chart.
- use place value to write different forms of numbers.
- use place value to compare and order numbers.
- use place value to round numbers.
- use place value and the four-step plan to solve problems.

Essential/Guiding Question:

- How can numbers be expressed, ordered, and compared?

Content:

- Place Value Through Thousands
- Compare Numbers
- Order Numbers
- Round to the Nearest Ten
- Round to the Nearest Hundred
- Problem Solving Investigation: Use the Four-Step Plan

Skills (Objectives):

- Read, write, and identify place value of whole numbers through thousands.
- Use place value to compare numbers.
- Use a number line and place value to order numbers through thousands.
- Round numbers to the nearest ten.
- Round numbers to the nearest hundred.
- Round numbers to the nearest thousand. Use the four-step plan to solve problems.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing

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- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.FP.3 -** Analyze how spending choices and decision-making can result in positive or negative consequences.
- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate).
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.TL.1 -** Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.
- **9.4.5.TL.2 -** Sort and filter data in a spreadsheet to analyze findings.
- **9.4.5.TL.5 -** Collaborate digitally to produce an artifact.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Formative Assessments:

- Think-Pair-Share
- Ticket Out the Door
- Quick Write
- Exit Slip
- Example/Non-Example
- Application Card
- Self-Assessment

Summative Assessment:

- My Review
- Reflect
- Chapter 1 - Assessment
- Chapter 1 - Performance Task

Benchmark Assessment:

- N/A

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• Talk Math • Independent Practice • Check My Progress	
Stage 3: Learning Plan	
Learning Opportunities/Strategies: **Chapter Introduction** **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter. **Chapter Introduction:** • Introduce the chapter by discussing the theme, "Let's Travel". • View online video to spark a discussion about how math is used in traveling. • Introduce the Essential Question: "How can numbers be expressed, ordered, and compared?" **Am I Ready?** • Complete the "Am I Ready?" assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter. **My Math Words** • Review vocabulary words and complete "My Math Words" activity. **My Vocabulary Cards** • Introduce vocabulary words and complete "My Vocabulary Cards" activity. **My Foldable** • This foldable summarizes rounding rules. It offers practice rounding to 10s and 100s or three- and four-digit numbers. Complete the "My Foldable" activities. **Wrap Up** • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Resources:** **TE pg. 1** • TE/SE pg. 1 • Online Video • TE/SE pg. 1 **TE/SE pg. 3** **TE/SE pg. 4** • Review Vocabulary: hundreds, is equal to (=), is greater than (>), is less than (<), ones, tens **TE/SE pg. 5-6** • New Vocabulary: digit, expanded form, place value, round, standard form, word form **TE/SE pg. 7-8** **Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1: Place Value Through Thousands** **Objective:** Students will read, write, and identify place value of whole numbers through thousands. **Launch:** • Remind students of the Essential Question: "How can numbers be expressed, ordered, and compared?"	**Resources:** **Follow corresponding Lesson Presentation Slides.** **TE pg. 9A-9B**

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• Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How do I tell the value of each digit in a number?” • Independent Practice **Apply:** • Problem Solving • Brain Builders **Wrap Up:** • Complete formative assessment • Assign homework	• New Vocabulary: digit, standard form, expanded form, place value, word form **TE pg. 9B** • base-ten blocks **TE/SE pg. 9-11** • base-ten blocks • Assign On Level set: 4-16 (even) **TE/SE pg. 12** **TE pg. 13-14** • Ticket Out the Door TE pg. 14 • SE pg. 13-14
Learning Opportunities/Strategies: **Lesson 2 - Compare Numbers** **Objective:** Students will use place value to compare numbers. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: “How can numbers be expressed, ordered, and compared?” • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Why is it not necessary to compare the ones digits in the numbers 365 and 278?” • Independent Practice **Apply:**	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 15A-15B** • Review Vocabulary: is equal to (=), is greater than (>), is less than (<) **TE pg. 15B** **TE/SE pg. 15-17** • Assign On Level set: 7-27 (odd) **TE/SE pg. 18**

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• Problem Solving • Brain Builders	
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 19-20** • Exit Slip TE pg. 20 • SE pg. 19-20
Learning Opportunities/Strategies: **Lesson 3 - Order Numbers**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use a number line and place value to order numbers through thousands.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: "How can numbers be expressed, ordered, and compared?" • Developing Vocabulary • Problem of the Day	**TE pg. 21A-21B** • Review Vocabulary: digit, place value
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 21B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "Look at Exercise 2. Explain how you can tell which number is the greatest" • Independent Practice	**TE/SE pg. 21-23** • Assign On Level set: 3-13 (odd)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 24**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 25-26** • Ticket Out the Door TE pg. 26 • SE pg. 25-26
Learning Opportunities/Strategies: **Lesson 4 - Round to the Nearest Ten**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will round numbers to the nearest ten.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch:	**TE pg. 29A-29B**

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● Remind students of the Essential Question: “How can numbers be expressed, ordered, and compared?” ● Developing Vocabulary ● Problem of the Day	● New Vocabulary: round
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 29B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “What should you do to round a number that ends in 5, which is exactly halfway between the numbers?” ● Independent Practice	**TE/SE pg. 29-31** ● Assign On Level set: 12-19, 21-26
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 32**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 33-34** ● Quick Write TE pg. 34 ● SE pg. 33-34
Learning Opportunities/Strategies: **Lesson 5 - Round to the Nearest Hundred** **Objective:** Students will round numbers to the nearest hundred.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can numbers be expressed, ordered, and compared?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 35A-35B** ● Review Vocabulary: hundreds, ones, place value, tens
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 35B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Is it possible for a number to be rounded to the nearest ten	**TE/SE pg. 35-37**

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and to the nearest hundred and result in the same rounded number?" ● Independent Practice	● Assign On Level set: 6-12, 14-18
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 38**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 39-40** ● Ticket Out the Door TE pg. 40 ● SE pg. 39-40
Learning Opportunities/Strategies: **Lesson 6 - Problem-Solving Investigation: Use the Four-Step Plan** **Objective:** Students will use the four-step plan to solve problems.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can numbers be expressed, ordered, and compared?" ● Problem of the Day	**TE pg. 41A-41B**
Build: ● Prepare ● Learn the Strategy	**TE pg. 41B** ● TE/SE pg. 41
Practice: ● Practice the Strategy	**TE/SE pg. 42**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategy	**TE/SE pg. 43-44**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 45-46** ● Quick Write TE pg. 46 ● SE pg. 45-46
Learning Opportunities/Strategies: **Chapter 1 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Essential Question: ● Remind students of the Essential Question: "How can numbers be expressed, ordered, and compared?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 47** **TE/SE pg. 48** **TE/SE pg. 49** **TE/SE pg. 49**
Reflect: ● Complete graphic organizer.	**TE/SE pg. 50**
Assign homework:	**n/a**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online

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	• Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide foundational support • Specific use of modalities - kinesthetic, visual, auditory, tactile • The multilingual eGlossary can support vocabulary Learning Station • My Learning Station student-led activity

Chapter Two: Addition

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.NBT.2 -** With accuracy and efficiency, add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
- **3.OA.9 -** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

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Central Idea / Enduring Understanding:
Students will…
- use properties of addition to solve problems.
- use place value to estimate sums.
- use place value to add three- and four-digit numbers.
- determine whether an answer is reasonable.
- identify and explain number patterns involving addition.

Essential/Guiding Question:
- How can place value help me add larger numbers?

Content:
- Addition Properties
- Patterns in the Addition Table
- Addition Patterns
- Add Mentally
- Estimate Sums
- Hands On: Use Models to Add
- Add Three-Digit Numbers
- Add Four-Digit Numbers
- Problem Solving Investigation: Reasonable Answers

Skills (Objectives):
- Use the addition properties to add whole numbers.
- Identify patterns in the addition table.
- Use place value to identify addition patterns.
- Use mental addition strategies.
- Estimate sums using rounding.
- Use models to explore adding three-digit numbers.
- Add three-digit numbers and use estimation to check for reasonableness.
- Add four-digit numbers with regrouping.
- Check answers for reasonableness.

Interdisciplinary Connection(s):

NJSLS for Literacy
- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
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- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate).
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- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.2.5.CAP.7 -** Identify factors to consider before starting a business.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
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- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Formative Assessments:

- One Minute Essay
- Exit Slip
- Example/Non-Example
- Summarize
- Turn to Your Partner
- One Sentence Summary
- Ticket Out the Door
- Think-Pair-Share
- Sequence
- Quick Draw
- Quick Write
- Reflect and Clarify
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:

- My Review
- Reflect
- Chapter 2 - Assessment
- Chapter 2 - Performance Task

Benchmark Assessment:

- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Chapter Introduction:

Resources:

TE pg. 51

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• Introduce the chapter by discussing the theme, "My Transportation". • View online video to spark a discussion about how math is used in transportation. • Introduce the Essential Question: "How can place value help me add larger numbers?"	• TE/SE pg. 51 • Online Video • TE/SE pg. 51
Am I Ready? • Complete the "Am I Ready?" assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 53**
My Math Words • Review vocabulary words and complete "My Math Words" activity.	**TE/SE pg. 54** • Review Vocabulary: addend, addition sentence, sum
My Vocabulary Cards • Introduce vocabulary words and complete "My Vocabulary Cards" activity.	**TE/SE pg. 55-58** • New Vocabulary: Associative Property of Addition, bar diagram, Commutative Property of Addition, estimate, Identity Property of Addition, mental math, parentheses, pattern, reasonable, regroup, unknown
My Foldable • This foldable provides practice in number sense with the operation of addition. It will foster more fluent ability and performance of mental math. Complete the "My Foldable" activities.	**TE/SE pg. 59-60**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1: Addition Properties** **Objective:** Students will use addition properties to add whole numbers.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: "How can place value help me add larger numbers?" • Developing Vocabulary • Problem of the Day	**TE pg. 61A-61B** • New Vocabulary: parentheses, Associative property of Addition, Commutative Property of Addition, Identity Property of Addition, mental math
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 61B**
Practice:	

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• Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How can you use the Associative Property to add 7, 8, and 3?” • Independent Practice	**TE/SE pg. 61-63** • Assign On Level set: 4-14 (even), 15
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 64**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 65-66** • Exit Slip TE pg. 66 • SE pg. 65-66
Learning Opportunities/Strategies: **Lesson 2 - Patterns in the Addition Table** **Objective:** Students will identify patterns in an additional table.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: “How can place value help me add larger numbers?” • Developing Vocabulary • Problem of the Day	**TE pg. 67A-67B** • New Vocabulary: pattern
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 67B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How do you find patterns in numbers?” • Independent Practice	**TE/SE pg. 67-69** • Assign On Level set: 3-9 (odd) • crayons/colored pencils (blue, green, yellow, pink, purple, red)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 70**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 71-72** • Summarize TE pg. 72; addition table • SE pg. 71-72

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Learning Opportunities/Strategies:	Resources:
Lesson 3 - Addition Patterns	**Follow corresponding Lesson Presentation Slides.**
Objective: Students will use place value to identify addition patterns.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 73A-73B** ● Review Vocabulary: place value
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 73B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Tell what happens to the digits in the number 1,057 if 100 is added to that number." ● Independent Practice	**TE/SE pg. 73-75** ● Assign On Level set: 5-21 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 76**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 77-78** ● Turn to Your Partner TE pg. 78 ● SE pg. 77-78
Learning Opportunities/Strategies:	**Resources:**
Lesson 4 - Add Mentally	**Follow corresponding Lesson Presentation Slides.**
Objective: Students will use mental addition strategies.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 79A-79B** ● Review Vocabulary: hundreds, ones, tens
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 79B**

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Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Would you rather make a ten or a hundred when finding 156 + 262? Explain.” ● Independent Practice	**TE/SE pg. 79-81** ● Assign On Level set: 4-12 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 82**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 83-84** ● Ticket Out the Door TE pg. 84 ● SE pg. 83-84
Learning Opportunities/Strategies: **Lesson 5 - Estimate Sums** **Objective:** Students will estimate sums using rounding. **Review Homework:** Review homework problems as needed.	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can place value help me add larger numbers?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 87A-87B** ● New Vocabulary: estimate
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 87B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Look at the problem in Example 3. How could it be rewritten so an exact number is needed?” ● Independent Practice	**TE/SE pg. 87-89** ● Assign On Level set: 4-16 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 90**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 91-92** ● Sequence TE pg. 92 ● SE pg. 91-92

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Learning Opportunities/Strategies:	Resources:
Lesson 6 - Hands On: Use Models to Add	**Follow corresponding Lesson Presentation Slides.**
Objective: Students will use models to explore adding three-digit numbers.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 93A** ● New Vocabulary: reasonable, regroup
Build: ● Build It	**TE/SE pg. 93-94** ● base-ten blocks, Work Mat 1 (place-value chart)
Practice: ● Talk About It ● Practice It	**TE/SE pg. 94-95**
Apply: ● Apply It ● Write About It	**TE/SE pg. 96** ● base-ten blocks
Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 97-98** ● TE pg. 98 ● SE pg. 97-98
Learning Opportunities/Strategies:	**Resources:**
Lesson 7 - Add Three-Digit Numbers	**Follow corresponding Lesson Presentation Slides.**
Objective: Students will add three-digit numbers and use estimation to check for reasonableness.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 99A-99B** ● New Vocabulary: reasonable, regroup, unknown
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 99B** ● base-ten blocks
Practice: ● Math in My World ● Guided Practice ● Talk Math	**TE/SE pg. 99-101**

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○ Students turn and talk: "Why is it important to check for reasonableness?" ● Independent Practice	● Assign On Level set: 3-13 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 102**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 103-104** ● Think-Pair-Share TE pg. 104 ● SE pg. 103-104
Learning Opportunities/Strategies: **Lesson 8 - Add Four-Digit Numbers** **Objective:** Students will add four-digit numbers with regrouping.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 107A-107B** ● New Vocabulary: bar diagram
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 107B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How could you use the Commutative Property to check that your answer to Exercise 2 is correct?" ● Independent Practice	**TE/SE pg. 107-109** ● Assign On Level set: 6-8, 10, 12-13
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 110**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 111-112** ● Quick Write TE pg. 112 ● SE pg. 111-112
Learning Opportunities/Strategies: **Lesson 9 - Problem-Solving Investigation: STRATEGY: Reasonable Answers**	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Objective: Students will check answers for reasonableness.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can place value help me add larger numbers?" ● Problem of the Day	**TE pg. 113A-113B**
Build: ● Prepare ● Learn the Strategy	● TE pg. 113B ● TE/SE pg. 113
Practice: ● Practice the Strategy	**TE/SE pg. 114**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategy	**TE/SE pg. 115-116**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 117-118** ● Think-Pair-Share TE pg. 118 ● SE pg. 117-118
Learning Opportunities/Strategies: **Chapter 2 Review and Reflect**	**Resources:**
Objective: Assess students' understanding of the vocabulary and key concepts in this chapter.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "How can place value help me add larger numbers?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 121** **TE/SE pg. 122** **TE/SE pg. 123** **TE/SE pg. 123**
Reflect: ● Complete graphic organizer	**TE/SE pg. 124**
Assign homework:	**Fluency Practice TE/SE pg. 119-120**

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Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide

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			foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Three: Subtraction

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.NBT.2 -** With accuracy and efficiency, add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.

Central Idea / Enduring Understanding:	**Essential/Guiding Question:**
Students will… ● use mental math to solve subtraction problems. ● estimate differences. ● use addition to check a subtraction problem. ● subtract numbers with regrouping. ● subtract with greater numbers.	● How are the operations of subtraction and addition related?
Content: ● Subtract Mentally ● Estimate Differences ● Problem Solving Investigation: Estimate or Exact Answer ● Hands On: Subtract with Regrouping ● Subtract Three-Digit Numbers ● Subtract Four-Digit Numbers ● Subtract Across Zeros	**Skills (Objectives):** ● Use strategies to subtract mentally. ● Estimate differences using rounding to the nearest ten or hundred. ● Determine whether an estimate or an exact answer is needed to solve a problem. ● Model subtraction with regrouping. ● Subtract three-digit numbers with regrouping. ● Subtract four-digit numbers with regrouping. ● Subtract across zeros.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.

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- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.FI.1 -** Identify various types of financial institutions and the services they offer including banks, credit unions, and credit card companies.
- **9.1.5.FP.3 -** Analyze how spending choices and decision-making can result in positive or negative consequences.
- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate)
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.4.5.CI.3** - Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

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Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Formative Assessments:
- Quick Draw
- Ticket Out the Door
- Think-Pair-Share
- Summarize
- Application Cards
- Exit Slip
- Quick Write
- One Sentence Summary
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:
- My Review
- Reflect
- Chapter 3 - Assessment
- Chapter 3 - Performance Task

Benchmark Assessment:
- Benchmark Test #1 (covers chapters 1-3).

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Chapter Introduction: ● Introduce the chapter by discussing the theme, “Activities I Do for Fun”. ● View online video to spark a discussion about how math is used in fun activities. ● Introduce the Essential Question: “How are the operations of subtraction and addition related?”	**TE pg. 125** ● TE/SE pg. 125 ● Online Video ● TE/SE pg. 125
Am I Ready? ● Complete “Am I Ready?” assessment to determine if students have the foundational skills needed to successfully learn new skills and concepts presented in this chapter.	**TE/SE pg. 127**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 128** ● Review Vocabulary: add, difference, equals sign (=), minus sign (-), subtract, sum, addend, equal, estimate, plus sign (+), subtraction sentence
My Vocabulary Cards ● Introduce vocabulary words. Complete “My Vocabulary Cards” activity.	**TE/SE pg. 129-130** ● New Vocabulary: inverse operations, regroup

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My Foldable ● This foldable provides a review of subtraction of 3- and 4-digit numbers. It reinforces subtraction concepts for regrouping, subtraction across zeros, and estimating differences. Complete "My Foldable" activities.	**TE/SE pg. 131-132**
Wrap Up ● Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** ● Must print letter
Learning Opportunities/Strategies: **Lesson 1: Subtract Mentally** **Objective:** Students will use strategies to subtract mentally.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: ● Remind students of the Essential Question: "How are the operations of subtraction and addition related?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 133A-133B** ● Review Vocabulary: difference, subtract
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 133B** ● base-ten blocks
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "What mental subtraction strategy could you use to find 234-29?" ● Independent Practice	**TE/SE pg. 133-135** ● Assign On Level set: 5-6, 8-9, 11-12
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 136**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 137-138** ● Ticket Out the Door TE pg. 138 ● SE pg. 137-138
Learning Opportunities/Strategies: **Lesson 2 - Estimate Differences** **Objective:** Students will estimate differences using rounding to the nearest ten or hundred.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: “How are the operations of subtraction and addition related?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 139A-139B** ● Review Vocabulary: estimate
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 139B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “4,749 was rounded to 4,750. Was 4,749 rounded to the nearest ten or hundred? Explain.” ● Independent Practice	**TE/SE pg. 139-141** ● Assign On Level set: 4-5, 9-10, 12-13
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 142**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 143-144** ● Summarize TE pg. 144 ● SE pg. 143-144
Learning Opportunities/Strategies: **Lesson 3 - Problem-Solving Investigation: STRATEGY: Estimate or Exact Answer** **Objective:** Students will determine whether an estimate or an exact answer is needed to solve a problem.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How are the operations of subtraction and addition related?” ● Problem of the Day	**TE pg. 145A-145B**
Build: ● Prepare ● Learn the Strategy	● TE pg. 145B ● TE/SE pg. 145
Practice: ● Practice the Strategy	**TE/SE pg. 146**
Apply: ● Apply the Strategy	**TE/SE pg. 147-148**

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• Brain Builders • Review the Strategy **Wrap Up:** • Complete formative assessment • Assign homework **Learning Opportunities/Strategies:** **Lesson 4 - Hands On: Subtract with Regrouping** **Objective:** Students will model subtraction with regrouping. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "How are the operations of subtraction and addition related?" • Developing Vocabulary • Problem of the Day **Build:** • Build It **Practice:** • Talk About It • Practice It **Apply:** • Apply It • Write About It **Wrap Up:** • Assign homework **Learning Opportunities/Strategies:** **Lesson 5 - Subtract Three-Digit Numbers** **Objective:** Students will use mental addition strategies. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "How are the operations of subtraction and addition related?" • Developing Vocabulary • Problem of the Day	**TE pg. 149-150** • Exit Slip TE pg. 150 • SE pg. 149-150 **Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 153A** • New Vocabulary: inverse operations, regroup **TE/SE pg. 153-154** **TE/SE pg. 154-155** **TE/SE pg. 155** **TE pg. 157-158** • SE pg. 157-158 **Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 159A-159B** • Review Vocabulary: round

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Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 159B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Why do you need to rename the tens place twice in Exercise 2?" ● Independent Practice	**TE/SE pg. 159-161** ● Assign On Level set: 4-5, 7-10
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 162**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 163-164** ● Ticket Out the Door TE pg. 164 ● SE pg. 163-164
Learning Opportunities/Strategies: **Lesson 6 - Subtract Four-Digit Numbers** **Objective:** Students will estimate sums using rounding. **Review Homework:** Review homework problems as needed.	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are the operations of subtraction and addition related?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 165A-165B** ● New Vocabulary: digit, hundreds, tens, thousands
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 165B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Explain the steps to find 8,422-5,995." ● Independent Practice	**TE/SE pg. 165-167** ● Assign On Level set: 3-4, 6-9
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 168**
Wrap Up:	**TE pg. 169-170**

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● Complete formative assessment ● Assign homework	● Think-Pair-Share TE pg. 170 ● SE pg. 169-170
Learning Opportunities/Strategies: **Lesson 7 - Subtract Across Zeros** **Objective:** Students will add three-digit numbers and use estimation to check for reasonableness.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are the operations of subtraction and addition related?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 171A-171B** ● Review Vocabulary: regroup
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 171B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Explain where you would start regrouping to find the difference in the problem 6,000-3,475." ● Independent Practice	**TE/SE pg. 171-173** ● Assign On Level set: 5, 7-10
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 174**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 175-176** ● Think-Pair-Share TE pg. 176 ● SE pg. 175-176
Learning Opportunities/Strategies: **Chapter 3 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "How are the operations of subtraction and addition related?"	

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Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders **Reflect:** **Assign homework:** ● Fluency Practice	 **TE/SE pg. 179** **TE/SE pg. 180** **TE/SE pg. 181** **TE/SE pg. 181** **TE/SE pg. 182** **TE/SE pg. 177-178**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample

	English Language Learner Guide to provide	• Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide foundational support • Specific use of modalities - kinesthetic, visual, auditory, tactile • The multilingual eGlossary can support vocabulary Learning Station • My Learning Station student-led activity

Chapter Four: Understanding Multiplication

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.1 -** Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 × 7.
- **3.OA.3 -** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **3.OA.5 -** Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
- **3.OA.8 -** Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (Clarification: This standard is limited to problems posed with whole numbers and having whole number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order)(Order of Operations)

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.

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- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- interpret the product of whole numbers.
- use arrays to represent multiplication.
- use the Commutative Property of Multiplication to solve problems.
- solve word problems by writing multiplication number sentences.
- use multiplication to solve real-life problems.

Essential/Guiding Question:

- What does multiplication mean?

Content:

- Hands On: Model Multiplication
- Multiplication as Repeated Addition
- Hands On: Multiply with Arrays
- Arrays and Multiplication
- Problem Solving Investigation: Make a Table
- Use Multiplication to Find Combinations

Skills (Objectives):

- Use models to explore the meaning of multiplication.
- Relate multiplication and addition.
- Use arrays to explore and model multiplication.
- Use arrays to multiply.
- Use the make a table strategy to solve problems.
- Use multiplication to find the total number of combinations that can be made when given two groups of objects.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

Third Grade Mathematics

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.PB.2:** Describe choices consumers have with money (e.g., save, spend, donate).
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.4.5.CI.3:** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Formative Assessments:

- Quick Draw
- Exit Slip
- Application Card
- Sequence
- Ticket Out the Door
- Definition
- Reflect and Clarify
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:

- My Review
- Reflect
- Chapter 4 - Assessment
- Chapter 4 - Performance Task

Benchmark Assessment:

- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Review Homework: Review homework problems as needed.

Chapter Introduction:

- Introduce chapter by discussing the theme, "My Favorite Foods".
- View online video to spark discussion about how math is used in cooking and making favorite foods.

Resources:

Student Homework Page

TE pg. 183

- TE/SE pg. 183
- Online Video
- TE/SE pg. 183

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• Introduce the Essential Question: “What does multiplication mean?”	
Am I Ready? • Complete “Am I Ready?” assessment to determine if students have foundational skills needed in order to successfully learn new skills and concepts presented in this chapter.	**TE/SE pg. 185**
My Math Words • Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 186** • Review Vocabulary: number sentence, repeated addition, sum
My Vocabulary Cards • Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 187-190** • New Vocabulary: array,combination, Commutative Property of Multiplication,equal groups,factor,multiplication sentence,multiply (multiplication), product, tree diagram
My Foldable • This foldable illustrates how to find all combinations of sets. It will reinforce how to use multiplication to find the total number of combinations. Complete “My Foldable” activities.	**TE/SE pg. 191-192**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1: Hands On: Model Multiplication** **Objective:** Students will use models to explore the meaning of multiplication.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: “What does multiplication mean?” • Developing Vocabulary • Problem of the Day	**TE pg. 193A** • New Vocabulary: equal groups, multiplication, multiplication sentence, multiply
Build: • Build It	**TE/SE pg. 193** • 20 connecting cubes
Practice: • Try It • Talk About It • Practice It	**TE/SE pg. 194-195** • counters, 2 paper plates
Apply: • Apply It • Write About It	**TE/SE pg. 196**

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Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 197-198** ● TE pg. 198 ● SE pg. 197-198
Learning Opportunities/Strategies: **Lesson 2 - Multiplication as Repeated Addition** **Objective:** Students will relate multiplication and addition. **Review Homework:** Review homework problems as needed.	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page**
Launch: ● Remind students of the Essential Question: "What does multiplication mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 199A-199B** ● New Vocabulary: factors, multiply, product
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 199B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Can you write 2 + 3 + 4 = 9 as a multiplication sentence? Explain." ● Independent Practice	**TE/SE pg. 199-200** ● Assign On Level set: 4-5, 7-10
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 202**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 203-204** ● Exit Slip TE pg. 204 ● SE pg. 203-204
Learning Opportunities/Strategies: **Lesson 3: Hands On: Multiply with Arrays** **Objective:** Students will use arrays to explore and model multiplication.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: ● Remind students of the Essential Question: "What does multiplication mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 205A** ● New Vocabulary: Commutative Property of Multiplication, array

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Build: ● Draw It	**TE/SE pg. 205** ● 12 color tiles
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 206-207** ● 10 color tiles
Apply: ● Apply It ● Write About It	**TE/SE pg. 208**
Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 209-210** ● TE pg. 210 ● SE pg. 209-210
Learning Opportunities/Strategies: **Lesson 4 - Arrays and Multiplication** **Objective:** Students will use arrays to multiply.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What does multiplication mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 211A-211B** ● New Vocabulary: Commutative Property of Multiplication, array
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 211B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "What other operation uses the Commutative Property? Explain." ● Independent Practice	**TE/SE pg. 211-213** ● Assign On Level set: 4-12 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 214**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 215-216** ● Exit Slip TE pg. 216 ● SE pg. 215-216

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Learning Opportunities/Strategies:	Resources:
Lesson 5 - Problem-Solving Investigation: STRATEGY: Make a Table	**Follow corresponding Lesson Presentation Slides.**
Objective: Students will use the make a table strategy to solve problems.	**TE pg. 219A-219B**
Review Homework: Review homework problems as needed.	
Launch: ● Remind students of the Essential Question: "What does multiplication mean?" ● Problem of the Day	● TE pg. 219B ● paper, markers ● TE/SE pg. 219
Build: ● Prepare	**TE/SE pg. 220**
● Learn the Strategy	**TE/SE pg. 221-222**
Practice: ● Practice the Strategy	
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategies	**TE pg. 223-224** ● Ticket out the Door TE pg. 224 ● SE pg. 223-224
Wrap Up: ● Complete formative assessment ● Assign homework	
Learning Opportunities/Strategies:	**Resources:**
Lesson 6 - Use Multiplication to Find Combinations	**n Presentation SlidesFollow corresponding Lesso.**
Objective: Students will use multiplication to find the total number of combinations that can be made when given two groups of objects.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What does multiplication mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 225A-225B** ● New Vocabulary: combination, tree diagram
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 225B**
Practice:	**TE/SE pg. 225-227**

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● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Explain how a tree diagram helps you find all the possible combinations without repeating any.” ● Independent Practice	● crayons/colored pencils (green, red, yellow, orange, black)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 228**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 229-230** ● Application Card TE pg. 230 ● SE pg. 229-230
Learning Opportunities/Strategies: **Chapter 4 Review and Reflect** **Objective:** Assess students’ understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: “What does multiplication mean?”	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 231** **TE/SE pg. 232** **TE/SE pg. 233** **TE/SE pg. 233**
Reflect: ● Complete graphic organizer	**TE/SE pg. 234**
Assign homework:	**n/a**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to “Beyond Level” ● Focus on critical thinking questions at the end of the lesson.	Small Group ● Utilize gradual release model ● Modify problem set to “On Level” ● Utilize “Reteach” problem-set to model questions.	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model

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Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Modify problem set to “Approaching Level” ● Utilize “Reteach” problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Modify problem set to “Approaching Level” ● Utilize “Reteach” problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station

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			• My Learning Station student-led activity

Chapter Five: Understanding Division

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.2 -** Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
- **3.OA.3 -** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **3.OA.4 -** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = ? ÷ 3, 6 × 6 = ?.
- **3.OA.7 -** With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5= 40, one knows 40÷5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- model division problems.
- write a division sentence that describes equal sharing.
- use repeated subtraction to find the quotient of a division problem.
- write related multiplication and division sentences.
- find the unknown in a division problem.

Essential/Guiding Question:

- What does division mean?

Content:

- Hands On: Model Division
- Division as Equal sharing
- Relate Division and Subtraction
- Hands On: Relate Division and Multiplication
- Inverse Operations
- Problem Solving Investigation: Use Models

Skills (Objectives):

- Explore two meanings of division.
- Model division as equal sharing.
- Use models to relate division and subtraction.
- Explore how division and multiplication are related.
- Divide using related multiplication facts.
- Use models to solve problems.

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Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
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- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
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- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate).
- **9.1.5.FP.4 -** Explain the role of spending money and how it affects well-being and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.)
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
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- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.5 -** Distinguish how media are used by individuals, groups, and organizations for varying purposes.

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Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Formative Assessments:
- Definition
- Quick Draw
- Analogy Prompt
- Ticket Out the Door
- Summarize
- Reflect and Clarify
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:
- My Review
- Reflect
- Chapter 5 - Assessment
- Chapter 5 - Performance Task

Benchmark Assessment:
- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Chapter Introduction: ● Introduce the chapter by discussing the theme, “Careers in Our World”. ● View online video to spark a discussion about how math is used in careers. ● Introduce the Essential Question: “What does division mean?”	**TE pg. 235** ● TE/SE pg. 235 ● Online Video ● TE/SE pg. 235
Am I Ready? ● Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 237**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 238** ● Review Vocabulary: array, equal groups, pattern, repeated addition
My Vocabulary Cards ● Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 239-242** ● New Vocabulary: divide (division), dividend, division sentence, divisor, fact family, inverse operations, partition, quotient, related facts, repeated subtraction
My Foldable ● This foldable provides practice in identifying the key vocabulary used in division. Complete the “My Foldable” activities.	**TE/SE pg. 243-244**

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Wrap Up ● Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** ● Must print letter
Learning Opportunities/Strategies: **Lesson 1: Hands On: Model Division** **Objective:** Students will explore two meanings of division. **Launch:** ● Remind students of the Essential Question: "What does division mean?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Build It **Practice:** ● Try It ● Talk About It ● Practice It **Apply:** ● Apply It ● Write About It **Wrap Up:** ● Reflect and Clarify ● Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **TE pg. 245A** ● New Vocabulary: divide, division, division sentence, partition **TE/SE pg. 245** ● 12 counters, 3 plates **TE/SE pg. 245-247** ● 12 counters ● 15 counters **TE/SE pg. 248** **TE pg. 249-250** ● TE pg. 250 ● SE pg. 249-250
Learning Opportunities/Strategies: **Lesson 2 - Division as Equal Sharing** **Objective:** Students will model division as equal sharing. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "What does division mean?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 251A-251B** ● New Vocabulary: divide, division sentence **TE pg. 251B** **TE/SE pg. 251-253** ● 15 counters ● 20 counters

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• Guided Practice
  ○ **Climate Change Opportunity**
 	
• Talk Math
  ○ Students turn and talk: “Explain what it means to share equally when dividing.”
• Independent Practice
 	
Apply:
• Problem Solving
• Brain Builders
 	
Wrap Up:
• Complete formative assessment
• Assign homework
	Climate Change Example
	• Scientists observed an iceberg that measured 24 feet. The next year they observed that it had melted by half its size. What is the current size of the iceberg?
	• Answer: 24 ÷ 2 = 12 feet
	
	• Assign On Level set: 5-13 (odd)
	• counters
	
	TE/SE pg. 254
	
	TE pg. 255-256
	• Quick Draw TE pg. 256
	• SE pg. 255-256

Learning Opportunities/Strategies: **Lesson 3 - Relate Division and Subtraction** **Objective:** Students will use models to relate division and subtraction. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: “What does division mean?” • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Explain how to use a number line to find 18 ÷ 9.” • Independent Practice **Apply:** • Problem Solving • Brain Builders	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 257A-257B** • New Vocabulary: repeated subtraction **TE pg. 257B** **TE/SE pg. 257-259** • 15 counters • Assign On Level set: 5-13 (odd) **TE/SE pg. 260**

Third Grade Mathematics

Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 261-262** ● Ticket Out the Door TE pg. 262 ● SE pg. 261-262
Learning Opportunities/Strategies: **Lesson 4: Hands On: Relate Division and Multiplication** **Objective:** Students will explore how division and multiplication are related.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What does division mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 265A** ● New Vocabulary: dividend, divisor, quotient
Build: ● Build It	**TE/SE pg. 265** ● counters
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 266-267** ● connecting cubes ● connecting cubes
Apply: ● Apply It ● Write About It	**TE/SE pg. 268**
Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 269-270** ● TE pg.270; 18 counters ● SE pg. 269-270
Learning Opportunities/Strategies: **Lesson 5 - Inverse Operations** **Objective:** Students will divide using related multiplication facts.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What does division mean?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 271A-271B** ● New Vocabulary: dividend, divisor, inverse operations, quotient, fact family, related facts

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Build: ● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Why are the product and the dividend the same in $3 \times 7 = 21$ and $21 \div 3 = 7$?" ● Independent Practice **Apply:** ● Problem Solving ● Brain Builders **Wrap Up:** ● Complete formative assessment ● Assign homework	**TE pg. 271B** **TE/SE pg. 271-273** ● Assign On Level set: 4-14 (even) **TE/SE pg. 274** **TE pg. 275-276** ● Ticket Out the Door TE pg. 276 ● SE pg. 275-276
Learning Opportunities/Strategies: **Lesson 6 - Problem-Solving Investigation:** **STRATEGY: Use Models** **Objective:** Students will use models to solve problems. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "What does division mean?" ● Problem of the Day **Build:** ● Prepare ● Learn the Strategy **Practice:** ● Practice the Strategy **Apply:** ● Apply the Strategy ● Brain Builders ● Review the Strategy **Wrap Up:** ● Complete formative assessment ● Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 277A-277B** **TE pg. 277B** ● SE pg. 277 ● 18 counters **TE/SE pg. 278** ● 20 counters **TE/SE pg. 279-280** ● use various tools (ie. counters, connecting cubes, eTools) **TE/SE pg. 281-282** ● Quick Draw TE pg. 282 ● SE pg. 281-282

Third Grade Mathematics

Learning Opportunities/Strategies:	Resources:
Chapter 5 Review and Reflect **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter. **Review Homework:** Review homework problems as needed. **Essential Question:** ● Remind students of the Essential Question: "What does division mean?" **Review:** ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders **Reflect:** ● Complete graphic organizer **Assign homework:**	 **Student Homework Page** **TE/SE pg. 283** **TE/SE pg. 284** **TE/SE pg. 285** **TE/SE pg. 285** **TE/SE pg. 286** **n/a**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math

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demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Six: Multiplication and Division Patterns

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.1 -** Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 × 7.
- **3.OA.2 -** Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.

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- **3.OA.3 -** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **3.OA.4 -** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.
- **3.OA.5 -** Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
- **3.OA.6 -** Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.
- **3.OA.7 -** With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- **3.OA.9 -** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
- **3.NBT.3 -** Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:	**Essential/Guiding Question**:
Students will… ● multiply using arrays, bar diagrams, and drawings. ● solve division problems by using multiplication facts. ● divide using equal groups. ● use skip counting and repeated addition to multiply. ● mentally multiply a one-digit number by multiples of ten.	● What is the importance of patterns in learning multiplication and division?
Content: ● Patterns in the Multiplication Table ● Multiply by 2 ● Divide by 2 ● Multiply by 5 ● Divide by 5 ● Problem Solving Investigation: Look for a Pattern ● Multiply by 10 ● Multiples of 10 ● Divide by 10	**Skills (Objectives):** ● Identify and explain patterns in the multiplication table. ● Use arrays and drawings, such as bar diagrams, to multiply by 2. ● Use models and related multiplication facts to divide by 2. ● Use different strategies, including patterns, to multiply by 5.

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	● Use different strategies, including related multiplication facts, to divide by 5. ● Solve problems by looking for a pattern. ● Use different strategies, including patterns, to multiply by 10. ● Use basic facts and patterns to multiply a number by a multiple of 10. ● Use different strategies, including related multiplication facts, to divide by 10.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.CR.1 -** Compare various ways to give back and relate them to your strengths, interests, and other personal factors.
- **9.1.5.FP.2 -** Identify the elements of being a good steward of money.
- **9.1.5.FP.4 -** Explain the role of spending money and how it affects well-being and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.)
- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate).
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.4.5.CI.1 -** Use appropriate communication technologies to collaborate with individuals with diverse

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perspectives about a local and/or global climate change issue and deliberate about possible solutions.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3** - Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4** - Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Formative Assessments:
- Definitions
- Exit Slip
- Quick Write
- Analogy Prompt
- Ticket Out the Door
- Example/Non-Example
- Think-Pair-Share
- Sequence
- One Minute Essay
- Application Cards
- Quick Draw
- Turn to Your Partner
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:
- My Review
- Reflect
- Chapter 6 - Assessment
- Chapter 6 - Performance Task

Benchmark Assessment:
- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Chapter Introduction:
- Introduce the chapter by discussing the theme, "Let's Collect!"
- View online video to spark a discussion about how math is used in collecting.
- Introduce the Essential Question: "What is the importance of patterns in learning multiplication and division?"

Resources:

TE pg. 287
- TE/SE pg. 287
- Online Video
- TE/SE pg. 287

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Am I Ready? ● Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 289**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 290** ● Review Vocabulary: bar diagram, factor, partition, product
My Vocabulary Cards ● Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 291-292** ● New Vocabulary: multiple
My Foldable ● This foldable provides practice and concept reinforcement for the multiplication and division facts of 2. Complete the “My Foldable” activities.	**TE/SE pg. 293-294**
Wrap Up ● Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** ● Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Patterns in the Multiplication Table** **Objective:** Students will identify and explain patterns in the multiplication table.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: ● Remind students of the Essential Question: “What is the importance of patterns in learning multiplication and division?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 295A-295B** ● Review Vocabulary: columns, rows
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 295B**
Practice: ● Math in My World ● Guided Practice ● Independent Practice	**TE/SE pg. 295-297** ● yellow crayon, blue crayon ● orange crayon, purple crayon ● Assign On Level set: 3, 5, 7-10 ● crayons/colored pencils (blue, green, yellow, gray)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 298**
Wrap Up: ● Complete formative assessment	**TE pg. 299-300** ● Exit Slip TE pg. 300

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• Assign homework	• SE pg. 299-300
Learning Opportunities/Strategies: **Lesson 2 - Multiply by 2** **Objective:** Students will use arrays and drawings, such as bar diagrams, to multiply by 2. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "Describe two strategies you can use to remember the multiplication facts for 2." • Independent Practice **Apply:** • Problem Solving • Brain Builders **Wrap Up:** • Complete formative assessment • Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 301A-301B** • Review Vocabulary: multiply **TE pg. 301B** **TE/SE pg. 301-303** • Assign On Level set: 3-11 (odd), 12-16 **TE/SE pg. 304** **TE pg. 305-306** • Exit Slip TE pg. 306, index cards • SE pg. 305-306
Learning Opportunities/Strategies: **Lesson 3 - Divide by 2** **Objective:** Students will use models and related multiplication facts to divide by 2. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" • Developing Vocabulary	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 307A-307B** • Review Vocabulary: partition

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• Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "What are two different ways to find 16 ÷ 2?" • Independent Practice **Apply:** • Problem Solving • Brain Builders **Wrap Up:** • Complete formative assessment • Assign homework	 **TE pg. 307B** **TE/SE pg. 307-309** • 12 counters • Assign On Level set: 4-18 (even), 19-24 **TE/SE pg. 310** **TE pg. 311-312** • Ticket Out the Door TE pg. 312 • SE pg. 311-312
Learning Opportunities/Strategies: **Lesson 4 - Multiply by 5** **Objective:** Students will use different strategies, including patterns, to multiply by 5. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "Explain why the 5s facts might be easier to remember than other facts." • Independent Practice **Apply:** • Problem Solving • Brain Builders	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 313A-313B** • Review Vocabulary: skip count **TE pg. 313B** **TE/SE pg. 313-315** • 7 nickels • Assign On Level set: 6-16 (even), 17-21 **TE/SE pg. 316**

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Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 317-318** ● Exit Slip TE pg. 318, index card ● SE pg. 317-318
Learning Opportunities/Strategies: **Lesson 5 - Divide by 5** **Objective:** Students will use different strategies, including related multiplication facts, to divide by 5.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 319A-319B** ● Review Vocabulary: inverse operations
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 319B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How can you tell if a number is divisible by 5?" ● Independent Practice	**TE/SE pg. 319-321** ● 20 counters ● Assign On Level set: 5-13 (odd), 15-19 ● counters
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 322**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 323-324** ● Think-Pair-Share TE pg. 324, index card ● SE pg. 323-324
Learning Opportunities/Strategies: **Lesson 6 - Problem-Solving Investigation: STRATEGY: Look for a Pattern** **Objective:** Students will solve problems by looking for a pattern.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch:	**TE pg. 327A-327B**

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• Remind students of the Essential Question: “What is the importance of patterns in learning multiplication and division?” • Problem of the Day	
Build: • Prepare • Learn the Strategy	**TE pg. 327B** • TE/SE pg. 327
Practice: • Practice the Strategy	**TE/SE pg. 328**
Apply: • Apply the Strategy • Brain Builders • Review the Strategy	**TE/SE pg. 329-330** • Assign On Level set: 1-7 (odd) • Use Appropriate Models (ie. counters, connecting cubes, eTools, etc.)
Wrap Up: • Complete formative assessment • Assign homework	**TE/SE pg. 331-332** • One Minute Essay TE pg. 332 • SE pg. 331-332
Learning Opportunities/Strategies: **Lesson 7 - Multiply by 10** **Objective:** Students will use different strategies, including patterns, to multiply by 10.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: “What is the importance of patterns in learning multiplication and division?” • Developing Vocabulary • Problem of the Day	**TE pg. 333A-333B** • Review Vocabulary: dime
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 333B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How can knowing the 5s facts help you with your 10s facts?” • Independent Practice	**TE/SE pg. 333-335** • Assign On Level set: 6-20 (even), 22-28
Apply: • Problem Solving	**TE/SE pg. 336**

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• Brain Builders	
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 337-338** • Think-Pair-Share TE pg. 338 • SE pg. 337-338
Learning Opportunities/Strategies: **Lesson 8 - Multiples by 10** **Objective:** Students will use basic facts and patterns to multiply a number by a multiple of 10.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" • Developing Vocabulary • Problem of the Day	**TE pg. 339A-339B** • New Vocabulary: multiple
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 339B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "Find the product of 3 x 20 and 2 x 30. What do you notice about the products? Is this an example of the Commutative Property of Multiplication? Explain." • Independent Practice	**TE/SE pg. 339-341** • Assign On Level set: 4-14 (even), 16-21
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 342**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 343-344** • Exit Slip TE pg. 344, index card • SE pg. 343-344
Learning Opportunities/Strategies: **Lesson 9 - Divide by 10** **Objective:** Students will use different strategies, including related multiplication facts, to divide by 10.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 345A-345B** ● Review Vocabulary: unknown
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 345B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "When you divide by 10, what do you notice about the quotient and the dividend?" ● Independent Practice	**TE/SE pg. 345-347** ● Assign On Level set: 4-12 (even), 14-18
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 348**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 349-350** ● Turn to Your Partner TE pg. 350 ● SE pg. 349-350
Learning Opportunities/Strategies: **Chapter 6 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "What is the importance of patterns in learning multiplication and division?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 353** **TE/SE pg. 354** **TE/SE pg. 355** **TE/SE pg. 355**
Reflect: ● Complete the graphic organizer	**TE/SE pg. 356**
Assign homework:	**Fluency Practice TE/SE pg. 351-352**

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Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide

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			foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Seven: Multiplication and Division

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.2 -** Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
- **3.OA.3 -** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **3.OA.4 -** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.
- **3.OA.5 -** Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
- **3.OA.7 -** With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5= 40, one knows 40÷5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- **3.OA.9 -** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

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Central Idea / Enduring Understanding:
Students will…
- find the unknown number in a multiplication sentence.
- use a number line to divide numbers.
- multiply by using a known fact and doubling.
- use subtraction to solve a division problem.
- use properties of multiplication to solve problems.

Essential/Guiding Question:
- What strategies can be used to learn multiplication and division facts?

Content:
- Multiply by 3
- Divide by 3
- Hands On: Double a Known Fact
- Multiply by 4
- Divide by 4
- Problem Solving Investigation: Extra or Missing Information
- Multiply by 0 and 1
- Divide with 0 and 1

Skills (Objectives):
- Use different strategies, such as arrays, equal groups, and properties, to multiply by 3.
- Use different strategies, including related multiplication facts, to divide by 3.
- Explore how to double a known fact in order to multiply.
- Double a known fact to multiply by 4.
- Use different strategies, including related multiplication facts, to divide by 4.
- Solve a problem by identifying extra or missing information.
- Use different strategies, such as equal groups, patterns, and properties, to multiply by 0 and 1.
- Use division rules to divide with 0 and 1.

Interdisciplinary Connection(s):

NJSLS for Literacy
- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies
- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

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NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.FP.3** - Analyze how spending choices and decision-making can result in positive or negative consequences.
- **9.1.5.PB.2** - Describe choices consumers have with money (e.g., save, spend, donate).
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -**Identify how you might like to earn an income.
- **9.4.5.CI.3** - Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1** - Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3** - Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4** - Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4** - Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2** - Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3** - Represent the same data in multiple visual formats in order to tell a story about the data.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Formative Assessments:

- Example/Non-Example
- Exit Slip
- Analogy Prompt
- Ticket Out the Door
- Definition
- Think-Pair-Share
- Turn to Your Partner
- One Minute Essay
- Application Card
- Quick Draw
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Summative Assessment:

- My Review
- Reflect
- Chapter 7 - Assessment
- Chapter 7 - Performance Task

Benchmark Assessment:

- Benchmark Test #2 (covers chapters 4-7)

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Chapter Introduction:

- Introduce the chapter by discussing the theme, "My Fun Friends".

Resources:

TE pg. 357

- TE/SE pg. 357

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• View online video to spark a discussion about how math is used when friends have fun. • Introduce the Essential Question: “What strategies can be used to learn multiplication and division facts?”	• Online Video • TE/SE pg. 357
Am I Ready? • Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 359**
My Math Words • Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 360** • Review Vocabulary: dividend, divisor, inverse operations, quotient
My Vocabulary Cards • Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 361-362** • New Vocabulary: decompose, Identity Property of Multiplication, known fact, Zero Property of Multiplication
My Foldable • This foldable illustrates three strategies students can use to divide. Complete the “My Foldable” activities.	**TE/SE pg. 363-364**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Multiply by 3** **Objective:** Students will use different strategies, such as arrays, equal groups, and properties, to multiply by 3.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: “What strategies can be used to learn multiplication and division facts?” • Developing Vocabulary • Problem of the Day	**TE pg. 365A-365B** • Review Vocabulary: Commutative Property
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 365B**
Practice: • Math in My World • Guided Practice • Independent Practice	**TE/SE pg. 365-367** • Assign On Level set: 3-11 (odd), 12-17

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Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 368**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 369-370** ● Exit Slip TE pg. 370 ● SE pg. 369-370
Learning Opportunities/Strategies: **Lesson 2 - Divide by 3** **Objective:** Students will use different strategies, including related multiplication facts, to divide by 3.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 371A-371B** ● Review Vocabulary: quotient
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 371B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Look back at the circled numbers on the multiplication table. Write the four related facts for the 3 numbers." ● Independent Practice	**TE/SE pg. 371-373** ● Assign On Level set: 5, 7, 9-21
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 374**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 375-376** ● Ticket Out the Door TE pg. 376 ● SE pg. 375-376
Learning Opportunities/Strategies: **Lesson 3: Hands On: Double a Known Fact** **Objective:** Students will explore how to double a known fact in order to multiply.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 377A** ● New Vocabulary: decompose, known fact
Build: ● Build It	**TE/SE pg. 377** ● counters
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 378-379** ● counters
Apply: ● Apply It ● Write About It	**TE/SE pg. 380**
Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 381-382** ● TE pg. 382; index cards ● SE pg. 381-382
Learning Opportunities/Strategies: **Lesson 4 - Multiply by 4** **Objective:** Students will double a known fact to multiply by 4.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 383A-383B** ● New Vocabulary: decompose, known fact
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 383B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Explain how knowing 2 x 7 can help you find 4 x 7." ● Independent Practice	**TE/SE pg. 383-385** ● Assign On Level set: 2-8 (even), 10-13

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Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 386**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 387-388** ● Exit Slip TE pg. 388, index cards ● SE pg. 387-388
Learning Opportunities/Strategies: **Lesson 5 - Divide by 4** **Objective:** Students will use different strategies, including related multiplication facts, to divide by 4.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 389A-389B** ● Review Vocabulary: equal groups
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 389B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Without dividing, how do you know that the quotient of 12 ÷ 3 is greater than the quotient of 12 ÷ 4?." ● Independent Practice	**TE/SE pg. 389-391** ● 12 counters ● 24 counters ● Assign On Level set: 4-8 (even), 10-14 ● counters
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 392**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 393-394** ● Turn to Your Partner TE pg. 394 ● SE pg. 393-394
Learning Opportunities/Strategies: **Lesson 6 - Problem-Solving Investigation: STRATEGY: Extra or Missing Information** **Objective:** Students will solve problems by identifying extra or missing information.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Problem of the Day	**TE pg. 397A-397B**
Build: ● Prepare ● Learn the Strategy	**TE pg. 397B** ● TE/SE pg. 397
Practice: ● Practice the Strategy	**TE/SE pg. 398**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategies	**TE/SE pg. 399-400** ● Assign On Level set: 1-3, 5, 7
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 401-402** ● Application Card TE pg. 402 ● SE pg. 401-402
Learning Opportunities/Strategies: **Lesson 7 - Multiply by 0 and 1** **Objective:** Students will use different strategies, such as equal groups, patterns, and properties to multiply by 0 and 1.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 403A-403B** ● New Vocabulary: Zero Property of Multiplication, Identity Property of Multiplication
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 403B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "If 100 is multiplied by 0, what will be the product? Explain your reasoning."	**TE/SE pg. 403-405**

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● Independent Practice	● Assign On Level set: 4-10 (even), 11-15
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 406**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 407-408** ● Exit Slip TE pg. 408, index card ● SE pg. 407-408
earning Opportunities/Strategies: **Lesson 8 - Divide with 0 and 1** **Objective:** Students will use division rules to divide with 0 and 1.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 409A-409B** ● Review Vocabulary: dividend, divisor
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 409B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How do you know you can divide any number by 1 or itself?" ● Independent Practice	**TE/SE pg. 409-411** ● Assign On Level set: 3-13 (odd), 14-18
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 412**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 413-414** ● Ticket Out the Door TE pg. 414, index cards ● SE pg. 413-414
Learning Opportunities/Strategies: **Chapter 7 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**

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Review Homework: Review homework problems as needed. **Essential Question:** ● Remind students of the Essential Question: "What strategies can be used to learn multiplication and division facts?" **Review:** ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders **Reflect:** ● Complete the graphic organizer **Assign homework:**	**Student Homework Page** **TE/SE pg. 417** **TE/SE pg. 417-418** **TE/SE pg. 419** **TE/SE pg. 419** **TE/SE pg. 420** **Fluency Practice TE/SE pg. 415-416**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math

provide	demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Eight: Apply Multiplication and Division

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.1 -** Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 × 7
- **3.OA.2 -** Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
- **3.OA.3 -** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
- **3.OA.4 -** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = □ ÷ 3, 6 × 6 = ?.

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- **3.OA.5 -** Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
- **3.OA.6 -** Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.
- **3.OA.7 -** With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5= 40, one knows 40÷5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- **3.OA.9 -** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- find the unknown number in a multiplication or division problem.
- use a number line to divide numbers.
- multiply by using a known fact and doubling.
- use properties of operations to solve a multiplication problem.
- use models and arrays to solve multiplication and division problems.

Essential/Guiding Question:

- How can multiplication and division facts with smaller numbers be applied to larger numbers?

Content:

- Multiply by 6
- Multiply by 7
- Divide by 6 and 7
- Multiply by 8
- Multiply by 9
- Divide by 8 and 9
- Problem-Solving Investigation: Make an Organized List
- Multiply by 11 and 12
- Divide with 11 and 12

Skills (Objectives):

- Use different strategies, including doubling a known fact, to multiply by 6.
- Use different strategies, such as properties, arrays, and decomposing factors, to multiply by 7.
- Use different strategies, including arrays and repeated subtraction, to divide by 6 and 7.
- Use different strategies, such as arrays, drawings, and known facts, to multiply by 8.
- Use different strategies, such as properties, known facts, or patterns, to multiply by 9.
- Use different strategies, such as equal groups, repeated subtraction, and related multiplication facts to divide by 8 and 9.
- Make an organized list to solve problems.
- Use different strategies, such as patterns, models, and arrays, to multiply 11 and 12.
- Use different strategies, such as equal groups, repeated subtraction, and related facts, to divide by 11 and 12.

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NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
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- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue

Stage 2: Assessment Evidence

Diagnostic Assessment:	Summative Assessment:
• Am I Ready?	• My Review • Reflect • Chapter 8 - Assessment

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	● Chapter 8 - Performance Task
Formative Assessments: ● One Minute Essay ● Application Card ● Ticket Out the Door ● Example/Non-Example ● Exit Slip ● One Minute Essay ● Think-Pair-Share ● Summarize ● Quick Write ● Quick Draw ● Self-Assessment ● Talk Math ● Independent Practice ● Check My Progress	**Benchmark Assessment:** ● N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Chapter Introduction: ● Introduce the chapter by discussing the theme, “Small Creatures in Our World”. ● View online video to spark a discussion about how math is used in studying small creatures. ● Introduce the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?”	**TE pg. 421** ● TE/SE pg. 421 ● Online Video ● TE/SE pg. 421
Am I Ready? ● Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 423**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 424** ● Review Vocabulary: factors, known fact, pattern, product
My Vocabulary Cards ● Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 425-426** ● New Vocabulary: no new vocabulary for this chapter
My Foldable	**TE/SE pg. 427-428**

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• This foldable illustrates the pattern of the 9s multiplication facts. Complete the “My Foldable” activities.	
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Multiply by 6**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use different strategies, including doubling a known fact, to multiply by 6.	
Launch: • Remind students of the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?” • Developing Vocabulary • Problem of the Day	**TE pg. 429A-429B** • Review Vocabulary: decompose
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 429B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Explain why the product of 6 and 3 is double the product of 3 and 3.” • Independent Practice	**TE/SE pg. 429-431** • crayons or colored pencils (yellow, green) • Assign On Level set: 3-15 (odd)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 432**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 433-434** • Ticket Out the Door TE pg. 434 • SE pg. 433-434
Learning Opportunities/Strategies: **Lesson 2 - Multiply by 7**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use different strategies, such as properties, arrays, and decomposing factors, to multiply by 7.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch:	**TE pg. 435A-435B**

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• Remind students of the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?” • Developing Vocabulary • Problem of the Day	• Review Vocabulary: Commutative Property
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 435B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Describe two different strategies for multiplying a number by 7.” • Independent Practice	**TE/SE pg. 435-437** • Assign On Level set: 3-17 (odd)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 438**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 439-440** • Exit Slip TE pg. 440 • SE pg. 439-440
Learning Opportunities/Strategies: **Lesson 3: Divide by 6 and 7** **Objective:** Students will use different strategies, including arrays and repeated subtraction, to divide by 6 and 7.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?” • Developing Vocabulary • Problem of the Day	**TE pg. 441A-441B** • Review Vocabulary: repeated subtraction
Build: • Investigate the Math: Explore, Model, Extend	**TE/SE pg. 441B**
Practice: • Math in My World • Guided Practice • Talk Math	**TE/SE pg. 441-443**

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○ Students turn and talk: “Are using related multiplication and division facts the same thing as using fact families? Explain.” ● Independent Practice	● Assign On Level set: 5-19 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 444**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 445-446** ● Think-Pair-Share TE pg. 446 ● SE pg. 445-446
Learning Opportunities/Strategies: **Lesson 4 - Multiply by 8** **Objective:** Students will use different strategies, such as arrays, drawings, and known facts, to multiply by 8.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 449A-449B** ● New Vocabulary: known fact
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 449B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “There are 4 groups of 8 students and 8 groups of 8 students, how many students are there altogether?” ● Independent Practice	**TE/SE pg. 449-451** ● Assign On Level set: 3-19 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 452**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 453-454** ● Summarize TE pg. 454 ● SE pg. 453-454
Learning Opportunities/Strategies: **Lesson 5 - Multiply by 9**	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Objective: Students will use different strategies, such as properties, known facts, or patterns, to multiply by 9.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can multiplication and division facts with smaller numbers be applied to larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 455A-455B** ● Review Vocabulary: pattern
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 455B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How can patterns help you when multiplying by 9?" ● Independent Practice	**TE/SE pg. 455-457** ● crayon or colored pencil (green) ● Assign On Level set: 5-15 (odd)
Apply: ● Brain Builders	**TE/SE pg. 458**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 459-460** ● Ticket Out the Door TE pg. 460 ● SE pg. 459-460
Learning Opportunities/Strategies: **Lesson 6 - Divide by 8 and 9**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use different strategies, such as equal groups, repeated subtraction, and related multiplication facts to divide by 8 and 9.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can multiplication and division facts with smaller numbers be applied to larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 461A-461B** ● New Vocabulary: inverse operations
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 461B**

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Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “How can multiplication facts help you to check if your division is correct?” ● Independent Practice	**TE/SE pg. 461-463** ● 63 counters ● Assign On Level set: 4-10 (even) ● counters
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 464**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 465-466** ● Exit Slip TE pg. 466 ● SE pg. 407-408
Learning Opportunities/Strategies: **Lesson 7 - Problem-Solving Investigation: STRATEGY: Make an Organized List** **Objective:** Students will make an organized list to solve problems.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can multiplication and division facts with smaller numbers be applied to larger numbers?” ● Problem of the Day	**TE pg. 469A-469B**
Build: ● Prepare ● Learn the Strategy	**TE pg. 469B** ● TE/SE pg. 469
Practice: ● Practice the Strategy	**TE/SE pg. 470-471**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategies	**TE/SE pg. 471-472**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 473-474** ● Application Card TE pg. 474 ● SE pg. 473-474
Learning Opportunities/Strategies: **Lesson 8 - Multiply by 11 and 12**	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Objective: Students will use different strategies, such as patterns, models, and arrays, to multiply 11 and 12.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can multiplication and division facts with smaller numbers be applied to larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 475A-475B** ● Review Vocabulary: decompose
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 475B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "In finding 6 x 12, could you double a known fact? Explain." ● Independent Practice	**TE/SE pg. 475-477** ● counters ● Assign On Level set: 2-10 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 478**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 479-480** ● Exit Slip TE pg. 480 ● SE pg. 479-480
Learning Opportunities/Strategies: **Lesson 9 - Divide by 11 and 12**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use different strategies, such as equal groups, repeated subtraction, and related facts, to divide by 11 and 12.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can multiplication and division facts with smaller numbers be applied to larger numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 481A-481B** ● Review Vocabulary: dividend, divisor, quotient
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 481B**

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Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Describe the pattern seen in the quotients when numbers such as 66, 55, and 44 are each divided by 11." ● Independent Practice	**TE/SE pg. 481-483** ● 48 counters ● Assign On Level set: 5-15 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 484**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 485-486** ● Ticket Out the Door TE pg. 486 ● SE pg. 485-486
Learning Opportunities/Strategies: **Chapter 8 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "How can multiplication and division facts with smaller numbers be applied to larger numbers?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 489** **TE/SE pg. 490** **TE/SE pg. 491** **TE/SE pg. 491**
Reflect: ● Complete the graphic organizer	**TE/SE pg. 492**
Assign homework:	**Fluency Practice TE/SE pg. 487-488**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level"	Small Group ● Utilize gradual release model ● Modify problem set to "On Level"	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile

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• Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Utilize gradual release model • Modify problem set to “Approaching Level” • Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Utilize gradual release model • Modify problem set to “Approaching Level” • Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide foundational support • Specific use of modalities - kinesthetic, visual, auditory, tactile • The multilingual eGlossary can support vocabulary Learning Station

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			• My Learning Station student-led activity

Chapter Nine: Properties and Equations

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.OA.5 -** Apply properties of operations as strategies to multiply and divide.2 Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)
- **3.OA.7 -** With accuracy and efficiency, multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 5= 40, one knows 40÷5=8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
- **3.OA.8 -** Solve two-step word problems, including problems involving money, using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (Clarification: This standard is limited to problems posed with whole numbers and having whole number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order)(Order of Operations)

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.

Central Idea / Enduring Understanding:	**Essential/Guiding Question:**
Students will… • use models to decompose factors and find products. • use the Distributive Property to multiply two whole numbers. • use the Associative Property of Multiplication to multiply three numbers more easily. • evaluate an expression. • write an equation to represent a real-world problem.	• How are properties and equations used to group numbers?
Content: • Hands On: Take Apart to Multiply • The Distributive Property • Hands On: Multiply Three Factors • The Associative Property • Write Expression	**Skills (Objectives):** • Explore how to take apart factors to multiply. • Apply the Distributive Property of Multiplication to find products. • Explore how to find the product of three factors.

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• Evaluate Expressions • Write Equations • Solve Two-Step Word Problems • Problem Solving Investigation: Use Logical Reasoning	• Apply the Associative Property of Multiplication to find products. • Write expressions using the four operations. • Write, then find the value of expressions. • Represent one- and two-step word problems using equations with a variable. • Represent and solve two-step word problems using equations with a variable. • Use logical reasoning to solve problems.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.FP.3 -** Analyze how spending choices and decision-making can result in positive or negative consequences.
- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate).
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.

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- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.

Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Summative Assessment:
- My Review
- Reflect
- Chapter 9 - Assessment
- Chapter 9 - Performance Task

Formative Assessments:
- Reflect and Clarify
- Definitions
- Summarize
- Quick Draw
- Ticket Out the Door
- Think-Pair-Share
- Sequence
- Exit Slip
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:
- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter. **Review Homework:** Review homework problems as needed.	**Student Homework Page**
Chapter Introduction: ● Introduce the chapter by discussing the theme, “Let’s Work with Tools!” ● View online video to spark a discussion about how math is used in working with tools. ● Introduce the Essential Question: “How are properties and equations used to group numbers?”	**TE pg. 493** ● TE/SE pg. 493 ● Online Video ● TE/SE pg. 493
Am I Ready? ● Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 495**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 496** ● Review Vocabulary: array, decompose, equal sign (=), known fact, unknown
My Vocabulary Cards	**TE/SE pg. 497-498**

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• Introduce vocabulary words and complete “My Vocabulary Cards” activity.	• New Vocabulary: Associative Property of Multiplication, Distributive Property, equation, evaluate, expression, operations, variable
My Foldable • This foldable can be used as a reinforcement and/or review tool of the properties of multiplication.	**TE/SE pg. 499-500**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Hands On: Take Apart to Multiply** **Objective:** Students will explore how to take apart factors to multiply.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: “How are properties and equations used to group numbers?” • Developing Vocabulary • Problem of the Day	**TE pg. 501A** • N/A
Build: • Build It	**TE/SE pg. 501** • 30 color tiles
Practice: • Try It • Talk About It • Practice It	**TE/SE pg. 502-503**
Apply: • Apply It • Write About It	**TE/SE pg. 504**
Wrap Up: • Reflect and Clarify • Assign homework	**TE pg. 505-506** • TE pg. 506 • SE pg. 505-506
Learning Opportunities/Strategies: **Lesson 2 - The Distributive Property** **Objective:** Students will apply the Distributive Property of Multiplication to find products.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: “How are properties and equations used to group numbers?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 507A-507B** ● Review Vocabulary: Distributive Property
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 507B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Explain what it means to decompose a number.” ● Independent Practice	**TE/SE pg. 507-508** ● Assign On Level set: 3-9 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 509-510**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 511-512** ● Summarize TE pg. 512 ● SE pg. 511-512
Learning Opportunities/Strategies: **Lesson 3: Hands On: Take Apart to Multiply** **Objective:** Students will explore how to take apart factors to multiply.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How are properties and equations used to group numbers?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 513A** ● N/A
Build: ● Build It	**TE/SE pg. 513** ● counters
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 514-515**

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Apply: ● Apply It ● Write About It	**TE/SE pg. 516**
Wrap Up: ● Reflect and Clarify ● Assign homework	**TE pg. 517-518** ● TE pg. 517 ● SE pg. 517-518
Learning Opportunities/Strategies: **Lesson 4 - The Associative Property** **Objective:** Students will use different strategies, such as arrays, drawings, and known facts, to multiply by 8.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 519A-519B** ● New Vocabulary: Associative Property of Multiplication
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 519B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Explain how the Associative Property of Multiplication can help you find missing factors." ● Independent Practice	**TE/SE pg. 519-521** ● Assign On Level set: 4-16 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 522**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 523-524** ● Ticket Out the Door TE pg. 524 ● SE pg. 523-524
Learning Opportunities/Strategies: **Lesson 5 - Write Expressions** **Objective:** Students will write expressions using the four operations.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 527A-527B** ● New Vocabulary: expression, operations
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 527B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How did you know what operations to use in Example 3?" ● Independent Practice	**TE/SE pg. 527-529** ● counters ● Assign On Level set: 4-16 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 529**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 531-532** ● Think-Pair-Share TE pg. 532 ● SE pg. 531-532
Learning Opportunities/Strategies: **Lesson 6 - Evaluate Expressions** **Objective:** Students will write, then find the value of, expressions.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 533A-533B** ● New Vocabulary: evaluate, variable
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 533B**
Practice:	**TE/SE pg. 533-535**

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• Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Look back at Example 3. How would your answer be different if you evaluated the expression left to write? Explain.” • Independent Practice	• Assign On Level set: 5-17 (odd)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 536**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 537-538** • Think-Pair-Share TE pg. 538 • SE pg. 537-538
Learning Opportunities/Strategies: **Lesson 7 - Write Equations** **Objective:** Students will represent one- and two-step word problems using equations with a variable.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: “How are properties and equations used to group numbers?” • Developing Vocabulary • Problem of the Day	**TE pg. 539A-539B** • New Vocabulary: equation
Build: • Investigate the Math: Explore, Model, Extend	**TE pg. 539B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “What is the difference between an expression and an equation?” • Independent Practice	**TE/SE pg. 539-541** • Assign On Level set: 3-11 (odd)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 542**
Wrap Up:	**TE pg. 543-544**

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● Complete formative assessment ● Assign homework	● Ticket Out the Door TE pg. 544 ● SE pg. 543-544
Learning Opportunities/Strategies: **Lesson 8 - Solve Two-Step Word Problems** **Objective:** Students will represent and solve two-step word problems using equations with a variable.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 545A-545B** ● Review Vocabulary: decompose
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 545B**
Practice: ● Math in My World ● Guided Practice ○ **Climate Change Opportunity** ● Talk Math ○ Students turn and talk: "How could you check an equation for reasonableness?" ● Independent Practice	**TE/SE pg. 545-547** **Climate Change Example:** ● Scientists are monitoring the size of an iceberg. The iceberg measured 100 feet long. One year, it melted to half that size. The following year it melted by another 20 feet. What is the current length of the iceberg? ● Answer: (100÷2)-20=30 feet ● Assign On Level set: 4-10 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 548**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 549-550** ● Think-Pair-Share TE pg. 550 ● SE pg. 549-550
Learning Opportunities/Strategies: **Lesson 9 - Problem-Solving Investigation: STRATEGY: Use Logical Reasoning** **Objective:** Students will use logical reasoning to solve problems.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?" ● Problem of the Day	**TE pg. 551A-551B**
Build: ● Prepare ● Learn the Strategy	**TE pg. 551B** ● 30 counters ● TE/SE pg. 551
Practice: ● Practice the Strategy	**TE/SE pg. 552**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategies	**TE/SE pg. 553-554**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 555-556** ● Exit Slip TE pg. 556 ● SE pg. 555-556
Learning Opportunities/Strategies: **Chapter 9 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "How are properties and equations used to group numbers?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 557** **TE/SE pg. 558** **TE/SE pg. 559** **TE/SE pg. 559**
Reflect: ● Complete the graphic organizer	**TE/SE pg. 560**
Assign homework:	**N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group	Small Group	Small Group	Small Group

Third Grade Mathematics

• Utilize gradual release model • Modify problem set to “Beyond Level” • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Utilize gradual release model • Modify problem set to “On Level” • Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to “Approaching Level” • Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	• Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to “Approaching Level” • Utilize “Reteach” problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide foundational support • Specific use of modalities - kinesthetic, visual, auditory, tactile

Third Grade Mathematics

			• The multilingual eGlossary can support vocabulary Learning Station • My Learning Station student-led activity

Chapter Ten: Fractions

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.NF.1 -** Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. For example: If a rectangle (i.e. the whole) is partitioned into 3 equal parts, each part is 1/3. Two of those parts would be 2/3.
- **3.NF.2b -** Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
- **3.NF.3b -** Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent with the support of a visual fraction model.
- **3.NF.3c -** Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point on a number line diagram.
- **3.NF.3d -** Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions with the support of a visual fraction model.
- **3.G.2 -** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:	**Essential/Guiding Question:**
Students will… • model unit fractions. • model fractions. • represent fractions on a number line. • model equivalent fractions. • compare two fractions.	• How can fractions be used to represent numbers and their parts?
Content: • Unit Fractions • Part of a Whole • Part of a Set	**Skills (Objectives):** • Explore and model unit fractions. • Read and write fractions that name part of a whole.

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• Problem Solving Investigation: Draw a Diagram • Hands On: Fractions on a Number Line • Equivalent Fractions • Fractions as One Whole • Compare Fractions	• Use models to represent fractions that name part of a set. • Draw a diagram to solve problems. • Represent fractions on a number line. • Use models to find equivalent fractions. • Express whole numbers as fractions and recognize fractions equivalent to whole numbers. • Use models to compare two fractions and record the results.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.

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- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Summative Assessment:
- My Review
- Reflect
- Chapter 10 - Assessment
- Chapter 10 - Performance Task

Formative Assessments:
- Reflect and Clarify
- Definition
- Quick Draw
- Think-Pair-Share
- Exit Slip
- Application Cards
- Sequence
- Ticket Out the Door
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:
- Benchmark Test #3 (covers chapters 8-10)

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Chapter Introduction: • Introduce the chapter by discussing the theme, “A Day at My School”. • View online video to spark a discussion about how math is used at school. • Introduce the Essential Question: “How can fractions be used to represent numbers and their parts?”	**TE pg. 561** • TE/SE pg. 561 • Online Video • TE/SE pg. 561
Am I Ready? • Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 563**
My Math Words • Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 564** • Review Vocabulary: fourths, halves, thirds
My Vocabulary Cards	

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● Introduce vocabulary words and complete “My Vocabulary Cards” activity. **My Foldable** ● This foldable provides practice with modeling fractions as equal parts of one whole and equivalent fractions. **Wrap Up** ● Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**TE/SE pg. 565-566** ● New Vocabulary: denominator, equivalent fractions, fraction, numerator, unit fraction **TE/SE pg. 567-568** **Online** ● Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Unit Fractions** **Objective:** Students will explore and model unit fractions. **Launch:** ● Remind students of the Essential Question: “How can fractions be used to represent numbers and their parts?” ● Developing Vocabulary ● Problem of the Day **Build:** ● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “What is a unit fraction?” ● Independent Practice **Apply:** ● Problem Solving ● Brain Builders **Wrap Up:** ● Complete formative assessment ● Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **TE pg. 569A-569B** ● New Vocabulary: fraction, unit fraction **TE pg. 569B** **TE/SE pg. 569-571** ● fraction tiles ● Assign On Level set: 5-15 (odd) **TE/SE pg. 572** **TE pg. 573-574** ● Quick Draw TE pg. 574 ● SE pg. 573-574
Learning Opportunities/Strategies: **Lesson 2 - Part of a Whole** **Objective:** Students will read and write fractions that name part of a whole.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 575A-575B** ● New Vocabulary: denominator, numerator
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 575B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "What is the difference between the numerator and the denominator of a fraction?" ● Independent Practice	**TE/SE pg. 575-577** ● fraction tiles ● Assign On Level set: 4-10 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 578**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 579-580** ● Exit Slip TE pg. 580 ● SE pg. 579-580
Learning Opportunities/Strategies: **Lesson 3: Part of a Set** **Objective:** Students will use models to represent fractions that name part of a set.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 581A-581B** ● Review Vocabulary: fraction
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 581B**
Practice:	**TE/SE pg. 581-583**

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• Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How is finding the fraction of a set different than finding the fraction of one whole?” • Independent Practice	• counters • Assign On Level set: 4-12 (even)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 584**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 585-586** • Quick Draw TE pg. 586 • SE pg. 585-586
Learning Opportunities/Strategies: **Lesson 4 - Problem-Solving Investigation: Strategy: Draw a Diagram** **Objective:** Students will draw a diagram to solve problems.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: “How can fractions be used to represent numbers and their parts?” • Problem of the Day	**TE pg. 587A-587B**
Build: • Prepare • Learn the Strategy	**TE pg. 587B** • 6 one-dollar bills (play money) • TE/SE pg. 587
Practice: • Practice the Strategy	**TE/SE pg. 588**
Apply: • Apply the Strategy • Brain Builders • Review the Strategies	**TE/SE pg. 589-590**
Wrap Up: • Complete formative assessment • Assign homework	**TE/SE pg. 591-592** • Quick Draw TE pg. 592 • SE pg. 591-592

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Learning Opportunities/Strategies:	Resources:
Lesson 5: Hands On: Fractions on a Number Line **Objective:** Students will represent fractions on a number line. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Build It **Practice:** ● Try It ● Talk About It ● Practice It **Apply:** ● Apply It ● Write About It **Wrap Up:** ● Reflect and Clarify ● Assign homework	**Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 595A** ● N/A **TE/SE pg. 595** ● fraction tiles, paper **TE/SE pg. 596-597** **TE/SE pg. 598** **TE pg. 599-600** ● TE pg. 599 ● SE pg. 599-600
Learning Opportunities/Strategies:	**Resources:**
Lesson 6 - Equivalent Fractions **Objective:** Students will use models to find equivalent fractions. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Investigate the Math: Explore, Model, Extend	**Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 601A-601B** ● New Vocabulary: equivalent fractions **TE pg. 601B**

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Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “What patterns do you see in the equivalent fractions 1/2, 2/4, 4/8?” ● Independent Practice	**TE/SE pg. 601-603** ● Assign On Level set: 2-8 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 604**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 605-606** ● Quick Draw TE pg. 606 ● SE pg. 605-606
Learning Opportunities/Strategies: **Lesson 7 - Fractions as One Whole** **Objective:** Students will express whole numbers as fractions and recognize fractions equivalent to whole numbers.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can fractions be used to represent numbers and their parts?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 607A-607B** ● Review Vocabulary: denominator, equivalent fractions, numerator
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 607B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “How can you tell whether 6/1 is greater or less than 1?” ● Independent Practice	**TE/SE pg. 607-609** ● Assign On Level set: 4-18 (even)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 610**

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Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg.611-612** ● Ticket Out the Door TE pg. 612 ● SE pg. 611-612
Learning Opportunities/Strategies: **Lesson 8 - Compare Fractions** **Objective:** Students will use models to compare two fractions and record results.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 613A-613B** ● Review Vocabulary: is equal to (=), is greater than (>), is less than (<)
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 613B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How can you compare two fractions that have the same numerator but different denominators?" ● Independent Practice	**TE/SE pg. 613-615** ● Assign On Level set: 3-7 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 616**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 617-618** ● Exit Slip TE pg. 618 ● SE pg. 617-618
Learning Opportunities/Strategies: **Chapter 10 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question:	

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• Remind students of the Essential Question: "How can fractions be used to represent numbers and their parts?"	
Review: • Vocabulary Check • Concept Check • Problem Solving • Brain Builders	**TE/SE pg. 619** **TE/SE pg. 619-620** **TE/SE pg. 621** **TE/SE pg. 621**
Reflect: • Complete the graphic organizer	**TE/SE pg. 622**
Assign homework:	**N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group • Utilize gradual release model • Modify problem set to "Beyond Level" • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson animations to demonstrate a model/sample • Utilize the McGraw Hill English Language Learner Guide to provide	Small Group • Utilize gradual release model • Modify problem set to "On Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online manipulative support • Utilize McGraw Hill Personal Tutor to demonstrate a model/sample • Utilize McGraw Hill online lesson	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. • Pair with on grade level or higher-achieving students to problem solve Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path • Utilize McGraw Hill eTools for online

	animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Eleven: Measurement

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.M.A.1 -** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
- **3.M.A.2 -** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Clarification: “Measure and estimate liquid volumes and masses” excludes compound units such as cm3 and finding the geometric volume of a container. “Multiply to solve one-step word problems” excludes multiplicative comparison problems (problems involving “times as much”; See Glossary, Tables 2a-2d))

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.

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- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:	**Essential/Guiding Question**:
Students will… ● estimate metric units of capacity. ● estimate metric units of mass. ● solve word problems involving capacity and mass. ● tell and write time to the nearest minute. ● measure time intervals in minutes.	● Why do we measure?
Content: ● Hands On: Estimate and Measure Capacity ● Solve Capacity Problems ● Hands On: Estimate and Measure Mass ● Solve Mass Problems ● Tell Time to the Minute ● Time Intervals ● Problem Solving Investigation: Work Backward	**Skills (Objectives):** ● Explore Estimating and measuring liquid volume using metric units of capacity. ● Use the four operations to solve one-step word problems involving liquid volume. ● Explore estimating and measuring metric units of mass. ● Use the four operations to solve one-step word problems involving mass. ● Tell time to the nearest minute. ● Determine time intervals to solve problems. ● Work backward to solve problems.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

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NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4** - Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.1 -** Evaluate digital sources for accuracy, perspective, credibility and relevance (e.g., Social Studies Practice - Gathering and Evaluating Sources).
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6** - Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Summative Assessment:

- My Review
- Reflect
- Chapter 11 - Assessment
- Chapter 11 - Performance Task

Formative Assessments:

- Reflect and Clarify
- Summarize
- Ticket Out the Door
- Think-Pair-Share
- Exit Slip
- Quick Write
- Application Cards
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:

- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Chapter Introduction:

- Introduce the chapter by discussing the theme, "Around My House".

Resources:

TE pg. 623

- TE/SE pg. 623

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• View online video to spark a discussion about how math is used in things around the house. • Introduce the Essential Question: “Why do we measure?”	• Online Video • TE/SE pg. 623
Am I Ready? • Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 625**
My Math Words • Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 626** • Review Vocabulary: heavier, hour, lighter, minute, second
My Vocabulary Cards • Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 627-630** • New Vocabulary: analog clock, capacity, digital clock, gram (g), kilogram (kg), liquid volume, liter (L), mass, metric unit, milliliter (mL), time interval, unit
My Foldable • This foldable provides practice in identifying metric units of liquid volume and mass.	**TE/SE pg. 631-632**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Hands On: Estimate and Measure Capacity** **Objective:** Students will explore estimating and measuring liquid volume using metric units of capacity.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: “Why do we measure?” • Developing Vocabulary • Problem of the Day	**TE pg. 633A** • New Vocabulary: capacity, liquid volume, liter (L), metric unit, milliliter (mL), unit
Build: • Build It	**TE/SE pg. 633** • 3 large containers to hold liquids (including one water glass), metric measuring cup (liters), water
Practice: • Try It	**TE/SE pg. 634-635**

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• Talk About It • Practice It **Apply:** • Apply It • Write About It **Wrap Up:** • Reflect and Clarify • Assign homework	• 3 very small containers to hold liquids (including one paper cup), metric measuring cup (milliliters), teaspoons, water **TE/SE pg. 636** **TE pg. 637-638** • TE pg. 638 • plastic liter bottles, labels • SE pg. 637-638
Learning Opportunities/Strategies: **Lesson 2 - Solve Capacity Problems** **Objective:** Students will use the four operations to solve one-step word problems involving liquid volume. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "Why do we measure?" • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "Look at Exercise 2. How do you know what operation to use?" • Independent Practice **Apply:** • Problem Solving • Brain Builders **Wrap Up:** • Complete formative assessment • Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 639A-639B** • Review Vocabulary: capacity **TE pg. 639B** **TE/SE pg. 639-641** • Assign On Level set: 5-13 **TE/SE pg. 642** **TE pg. 643-644** • Ticket Out the Door TE pg. 644 • SE pg. 643-644

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Learning Opportunities/Strategies:	Resources:
Lesson 3: Hands On: Estimate and Measure Mass **Objective:** Students will explore estimating and measuring metric units of mass. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "Why do we measure?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Build It **Practice:** ● Try It ● Talk About It ● Practice It **Apply:** ● Apply It ● Write About It **Wrap Up:** ● Reflect and Clarify ● Assign homework	**Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 645A** ● New Vocabulary: gram (g), kilogram (kg), mass **TE/SE pg. 645** ● bucket balance, 1 kg weights or 8 rolls of pennies, one baseball, three objects, about 1 kg in mass **TE/SE pg. 646-647** ● bucket balance, 1 gram weight or a base-ten ones cube, one dollar bill, three objects, about 1 g in mass **TE/SE pg. 648** **TE pg. 649-650** ● TE pg. 650 ● SE pg. 649-650
Learning Opportunities/Strategies: **Lesson 4 - Solve Mass Problems** **Objective:** Students will use the four operations to solve one-step word problems involving mass. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "Why do we measure?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 651A-651B** ● Review Vocabulary: mass **TE/SE pg. 651B** **TE/SE pg. 651-653**

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• Guided Practice • Talk Math ○ Students turn and talk: “Explain how you solved Exercise 2.” • Independent Practice	• Assign On Level set: 4-8 (even)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 654**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 655-656** • Exit Slip TE pg. 656 • SE pg. 655-656
Learning Opportunities/Strategies: **Lesson 5: Tell Time to the Minute** **Objective:** Students will tell time to the nearest minute. **Review Homework:** Review homework problems as needed.	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page**
Launch: • Remind students of the Essential Question: “Why do we measure?” • Developing Vocabulary • Problem of the Day	**TE pg. 659A-659B** • New Vocabulary: analog clock, digital clock
Build: • Investigate the Math: Explore, Model, Extend	**TE/SE pg. 659B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Does the minute hand or the hour hand move faster on an analog clock? Explain.” • Independent Practice	**TE/SE pg. 659-661** • Assign On Level set: 7-8, 11-13
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 662**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 663-664** • Think-Pair-Share TE pg. 664 • SE pg. 663-664
Learning Opportunities/Strategies: **Lesson 6 - Time Intervals**	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Objective: Students will determine time intervals to solve problems.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "Why do we measure?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 665A-665B** ● New Vocabulary: time interval
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 665B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Lupe took a nap at the time shown (12:15 p.m.) and woke up at 1:30 p.m. Explain how you can find how long he slept." ● Independent Practice	**TE/SE pg. 665-667** ● Assign On Level set: 3-4, 6
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 668**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 669-670** ● Application Card TE pg. 670 ● SE pg. 669-670
Learning Opportunities/Strategies: **Lesson 7 - Problem-Solving Investigation: Strategy: Work Backward**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will work backward to solve problems.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "Why do we measure?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 671A-671B** ● n/a
Build: ● Prepare	**TE pg. 671B**

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• Learn the Strategy	• TE/SE pg. 671
Practice: • Practice the Strategy	**TE/SE pg. 672**
Apply: • Apply the Strategy • Brain Builders • Review the Strategies	**TE/SE pg. 673-674**
Wrap Up: • Complete formative assessment • Assign homework	**TE/SE pg. 675-676** • Think-Pair-Share TE pg. 676 • SE pg. 675-676
Learning Opportunities/Strategies: **Chapter 11 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: • Remind students of the Essential Question: "Why do we measure?"	
Review: • Vocabulary Check • Concept Check • Problem Solving • Brain Builders	**TE/SE pg. 677** **TE/SE pg. 678** **TE/SE pg. 679** **TE/SE pg. 679**
Reflect: • Complete the graphic organizer	**TE/SE pg. 680**
Assign homework:	**N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group • Utilize gradual release model • Modify problem set to "Beyond Level" • Focus on critical thinking questions at the end of the lesson. Technology	Small Group • Utilize gradual release model • Modify problem set to "On Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions at the	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level"	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level"

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● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Utilize “Reteach” problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Utilize “Reteach” problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

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Chapter Twelve: Represent and Interpret Data

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.DL.1 -** Develop data-based questions and decide what data will answer the question. (e.g., "What size shoe does a 3rd grader wear?", "How many books does a 3rd grader read?")
- **3.DL.2 -** Collect student-centered data (e..g. collect data on students' favorite ice cream flavor) or use existing data to answer data-based questions.
- **3.DL.3 -** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
- **3.DL.4 -** Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- represent data using scaled graphs.
- interpret data in graphs.
- use a line plot to represent data.
- use a ruler to measure to the nearest half inch or quarter inch.
- graph measurement data on line plot.

Essential/Guiding Question:

- How do we obtain useful information from a set of data?

Content:

- Collect and Record Data
- Draw Scaled Picture Graphs
- Draw Scaled Bar Graphs
- Relate Bar Graphs to Scaled Picture Graphs
- Draw and Analyze Line plots
- Hands On: Measure to Halves and Fourths of an Inch
- Collect and Display Measurement Data
- Problem Solving Investigation: Solve a Simpler Problem

Skills (Objectives):

- Collect and record data through observations and surveys.
- Draw a scaled picture graph.
- Draw scaled bar graphs.
- Relate bar graphs to scaled picture graphs.
- Draw, organize, and analyze data in line plots.
- Measure lengths to the nearest half inch and nearest quarter inch.
- Collect and display measurement data to fractions of an inch.
- Solve problems by solving a simpler problem.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.

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- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.1.5.CR.1 -** Compare various ways to give back and relate them to your strengths, interests, and other personal factors.
- **9.1.5.FP.4 -** Explain the role of spending money and how it affects well-being and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.)
- **9.1.5.PB.2 -** Describe choices consumers have with money (e.g., save, spend, donate)
- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6** - Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.

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Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Summative Assessment:
- My Review
- Reflect
- Chapter 12 - Assessment
- Chapter 12 - Performance Task

Formative Assessments:
- Reflect and Clarify
- Quick Draw
- Ticket Out the Door
- Application Cards
- Exit Slip
- Summarize
- Think-Pair-Share
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:
- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Chapter Introduction: ● Introduce the chapter by discussing the theme, “My Outdoor Adventures”. ● View online video to spark a discussion about how math is used in outdoor adventures. ● Introduce the Essential Question: “How do we obtain useful information from a set of data?”	**TE pg. 681** ● TE/SE pg. 681 ● Online Video ● TE/SE pg. 681
Am I Ready? ● Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 683**
My Math Words ● Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 684** ● Review Vocabulary: compare, symbol
My Vocabulary Cards ● Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 685-687** ● New Vocabulary: analyze, bar graph, data, frequency table, half inch (½), interpret, key, line point, pictograph, picture graph, quarter inch (¼), scale, survey, tally chart, tally mark(s)

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My Foldable ● This foldable provides practice with displaying the same set of data in four different graphs.	**TE/SE pg. 688-690**
Wrap Up ● Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** ● Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Collect and Record Data**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will collect and record data through observations and surveys.	
Launch: ● Remind students of the Essential Question: "How do we obtain useful information from a set of data?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 691A** ● New Vocabulary: data, frequency table, survey, tally chart, tally marks
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 691B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "What is the difference between a frequency table and a tally chart?" ● Independent Practice	**TE/SE pg. 691-693** ● Assign On Level set: 3-10
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 694**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 695-696** ● Quick Draw TE pg. 696 ● SE pg. 695-696
Learning Opportunities/Strategies: **Lesson 2 - Draw Scaled Picture Graphs**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will draw a scaled picture graph.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch:	**TE pg. 697A-697B**

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• Remind students of the Essential Question: “How do we obtain useful information from a set of data?” • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “Explain why a pictograph must have a key.” • Independent Practice **Apply:** • Problem Solving • Brain Builders **Wrap Up:** • Complete formative assessment • Assign homework	• New Vocabulary: analyze, interpret, pictograph, key, picture graph **TE pg. 697B** **TE/SE pg. 697-699** • Assign On Level set: 2, 4 **TE/SE pg. 700** **TE pg. 701-702** • Ticket Out the Door TE pg. 702 • SE pg. 701-702
Learning Opportunities/Strategies: **Lesson 3: Draw Scaled Bar Graphs** **Objective:** Students will draw scaled bar graphs. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: “How do we obtain useful information from a set of data?” • Developing Vocabulary • Problem of the Day **Build:** • Investigate the Math: Explore, Model, Extend **Practice:** • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: “How are horizontal and vertical bar graphs alike? How are they different?”	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 703A-703B** • New Vocabulary: bar graph, scale **TE/SE pg. 703B** **TE/SE pg. 703-705**

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• Independent Practice	• Assign On Level set: 3-10
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 706**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 707-708** • Application card TE pg. 708 • SE pg. 707-708
Learning Opportunities/Strategies: **Lesson 4 - Relate Bar Graphs to Scaled Picture Graphs** **Objective:** Students will relate bar graphs to scaled picture graphs.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: "How do we obtain useful information from a set of data?" • Developing Vocabulary • Problem of the Day	**TE pg. 709A-709B** • Review Vocabulary: bar graph, pictograph
Build: • Investigate the Math: Explore, Model, Extend	**TE/SE pg. 709B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "If the scale for the bar graph above was in intervals of 4, would the information be different? Explain." • Independent Practice	**TE/SE pg. 709-711** • Assign On Level set: 3-4
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 712**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 713-714** • Exit Slip TE pg. 714 • SE pg. 713-714
Learning Opportunities/Strategies: **Lesson 5: Draw and Analyze Line Plots** **Objective:** Students will draw, organize, and analyze data in line plots.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: “How do we obtain useful information from a set of data?” ● Developing Vocabulary ● Problem of the Day **Build:** ● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Does a tally chart or a line plot make it easier to see how often numbers occur in a set of data? Explain.” ● Independent Practice **Apply:** ● Problem Solving ● Brain Builders **Wrap Up:** ● Complete formative assessment ● Assign homework	**Student Homework Page** **TE pg. 715A-715B** ● New Vocabulary: line plot **TE/SE pg. 715B** **TE/SE pg. 715-717** ● Assign On Level set: 3-4 **TE/SE pg. 718** **TE pg. 719-720** ● Summarize TE pg. 720 ● SE pg. 719-720
Learning Opportunities/Strategies: **Lesson 6 - Hands On: Measure to Halves and Fourths of an Inch** **Objective:** Students will measure lengths to the nearest half inch and quarter inch. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: “How do we obtain useful information from a set of data?” ● Developing Vocabulary ● Problem of the Day **Build:** ● Measure It	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 723A** ● New Vocabulary: half inch (½), quarter inch (¼) **TE pg. 723** ● SE 723 ● inch ruler, 3 connecting cubes

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Practice: ● Try it ● Talk About It ● Practice It	**TE/SE pg. 724-725**
Apply: ● Apply It ● Write About It	**TE/SE pg. 726**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 727-728** ● Reflect and Clarify TE pg. 728 ● SE pg. 727-728
Learning Opportunities/Strategies: **Lesson 7: Collect and Display Measurement Data** **Objective:** Students will collect and display measurement data to fractions of an inch.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How do we obtain useful information from a set of data?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 729A-729B** ● Review Vocabulary: half inch (½), quarter inch (¼)
Build: ● Investigate the Math: Explore, Model, Extend	**TE/SE pg. 729B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "How different would the data be if the measurements taken in Example 1 were to the nearest inch, instead of half inch?" ● Independent Practice	**TE/SE pg. 729-731** ● inch rulers ● Assign On Level set: 5-6
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 732**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 733-734** ● Think-Pair-Share TE pg. 734 ● SE pg. 733-734

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Learning Opportunities/Strategies:	Resources:
Lesson 8 - Problem-Solving Investigation: Strategy: Solve a Simpler Problem **Objective:** Students will solve problems by solving a simpler problem. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "How do we obtain useful information from a set of data?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Prepare ● Learn the Strategy **Practice:** ● Practice the Strategy **Apply:** ● Apply the Strategy ● Brain Builders ● Review the Strategies **Wrap Up:** ● Complete formative assessment ● Assign homework	**Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 735A-735B** ● n/a **TE pg. 735B** ● TE/SE pg. 735 **TE/SE pg. 736** **TE/SE pg. 737-738** **TE/SE pg. 739-740** ● Application Cards TE pg. 740 ● SE pg. 739-740
Learning Opportunities/Strategies: **Chapter 12 Project** **Objective:** Students will create a question of their choice (e.g., "How many books does a 3rd grader read?"), poll classmates to collect data, and create a data graph of their choice from Chapter 12, to represent the collected data. **Launch:** ● Review types of graphs presented in Chapter 12. **Build:** ● Provide students with an example of a question and a graph to represent the data collected on that question. **Apply:** ● Students create their own question ● Students will poll their classmates to gather data	**Resources:** **Templates for Graphs**

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• Students will choose a graph type to create and represent data. • Students answer their question by interpreting their data from the graph. **Wrap Up:** • Students share their questions, data, and completed graphs.	
Learning Opportunities/Strategies: **Chapter 12 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter. **Review Homework:** Review homework problems as needed. **Essential Question:** • Remind students of the Essential Question: "How do we obtain useful information from a set of data?" **Review:** • Vocabulary Check • Concept Check • Problem Solving • Brain Builders **Reflect:** • Complete the graphic organizer **Assign homework:**	**Resources:** **Student Homework Page** **TE/SE pg. 741** **TE/SE pg. 742** **TE/SE pg. 743** **TE/SE pg. 743** **TE/SE pg. 744** **N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group • Utilize gradual release model • Modify problem set to "Beyond Level" • Focus on critical thinking questions at the end of the lesson. Technology • Participate in RedBird Math individualized learning path • Participate in Reflex Math individualized learning path	Small Group • Utilize gradual release model • Modify problem set to "On Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions at the end of the lesson. Technology	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions	Small Group • Specific use of modalities - kinesthetic, visual, auditory, tactile • Utilize gradual release model • Modify problem set to "Approaching Level" • Utilize "Reteach" problem-set to model questions. • Focus on critical thinking questions

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● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

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Chapter Thirteen: Perimeter and Area

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.M.B.3 -** Recognize area as an attribute of plane figures and understand concepts of area measurement.
- **3.M.B.3b -** A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
- **3.M.B.5a -** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
- **3.M.B.5c -** Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.
- **3.M.B.5d -** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
- **3.M.C.6 -** Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.
- **7. -** Look for and make use of structure.
- **8. -** Look for and express regularity in repeated reasoning.

Central Idea / Enduring Understanding:

Students will…

- find the perimeter of a figure.
- find the area of a figure.
- tile rectangles to find the area.
- use a formula to find the area of a rectangle.
- decompose a composite figure to find the area.
- relate perimeter and area of rectangles.

Essential/Guiding Question:

- How are perimeter and area related and how are they different?

Content:

- Hands On: Find Perimeter
- Perimeter
- Hands On: Understand Area
- Measure Area
- Hands On: Tile Rectangles to Find Area
- Area of Rectangles
- Hands On: Area and the Distributive Property
- Area of Composite Figures
- Area and Perimeter
- Problem Solving Investigation: Draw a Diagram

Skills (Objectives):

- Explore finding the perimeter of a figure..
- Find the unknown when solving problems involving perimeter.
- Count unit squares to find the area of a figure.
- Use addition to measure the area of a figure.
- Use tiling to find the area of rectangles.
- Use the formula for area to find the area of rectangles.
- Use the Distributive Property to find area.
- find the area of composite figures.
- Recognize the relationship between area and perimeter.

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	● Draw a diagram to solve problems.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.4 -** Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- **9.4.5.TL.4 -** Compare and contrast artifacts produced individually to those developed collaboratively.

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Stage 2: Assessment Evidence

Diagnostic Assessment:
- Am I Ready?

Summative Assessment:
- My Review
- Reflect
- Chapter 13 - Assessment
- Chapter 13 - Performance Task

Formative Assessments:
- Reflect and Clarify
- Quick Draw
- Exit Slip
- Summarize
- Turn to Your Partner
- Ticket Out the Door
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:
- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:	Resources:
Chapter Introduction **Objective:** Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.	
Chapter Introduction: ● Introduce the chapter by discussing the theme, "Let's Build Something." ● View online video to spark a discussion about how math is used when building. ● Introduce the Essential Question: "How are perimeter and area related and how are they different?"	**TE pg. 745** ● TE/SE pg. 745 ● Online Video ● TE/SE pg. 745
Am I Ready? ● Complete the "Am I Ready?" assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 747**
My Math Words ● Review vocabulary words and complete "My Math Words" activity.	**TE/SE pg. 748** ● Review Vocabulary: decompose, Distributive Property
My Vocabulary Cards ● Introduce vocabulary words and complete "My Vocabulary Cards" activity.	**TE/SE pg. 749-750** ● New Vocabulary: area, composite figure, formula, perimeter, square unit, unit square
My Foldable	**TE/SE pg. 751-752**

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• This foldable provides practice in understanding concepts of area measurement. **Wrap Up** • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Hands On: Find Perimeter** **Objective:** Students will explore finding the perimeter of a figure. **Launch:** • Remind students of the Essential Question: "How are perimeter and area related and how are they different?" • Developing Vocabulary • Problem of the Day **Build:** • Measure It **Practice:** • Try it • Talk About It • Practice It **Apply:** • Apply It • Write About It **Wrap Up:** • Complete formative assessment • Assign homework	**Resources:** **Follow corresponding Lesson Presentation Slides.** **TE pg. 753A** • New Vocabulary: perimeter **TE pg. 753** • SE 753 • centimeter ruler, base-ten cubes, notebook paper, math book, desk top, whiteboard **TE/SE pg. 754-755** • inch ruler, notebook paper, math book, desk top, white board **TE/SE pg. 756** **TE pg. 757-758** • Reflect and Clarify TE pg. 758 • SE pg. 757-758
Learning Opportunities/Strategies: **Lesson 2 - Perimeter** **Objective:** Students will find the unknown when solving problems involving perimeter. **Review Homework:** Review homework problems as needed. **Launch:** • Remind students of the Essential Question: "How are perimeter and area related and how are they different?" • Developing Vocabulary • Problem of the Day **Build:**	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 759A-759B** • New Vocabulary: perimeter **TE pg. 759B**

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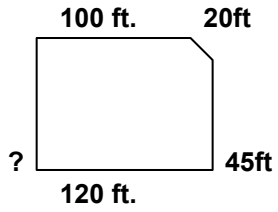
● Investigate the Math: Explore, Model, Extend **Practice:** ● Math in My World ● Guided Practice ○ **Climate Change Opportunity** ● Talk Math ○ Students turn and talk: "If a triangle had three equal sides and its perimeter was 15 units, how could you find the length of each side?"	**TE/SE pg. 759-761** **Climate Change Example:** ● Scientists are monitoring changes in the size of icebergs due to increasing surface temperatures. Last year, the iceberg had a perimeter of 620 feet. This year, the iceberg's size has decreased to a perimeter of 350 feet. Find the missing side of the iceberg. ● What is the difference in size between last year's iceberg and this year's iceberg? 
● Independent Practice **Apply:** ● Problem Solving ● Brain Builders **Wrap Up:** ● Complete formative assessment ● Assign homework	● Assign On Level set: 4-6, 8-10 **TE/SE pg. 762** **TE pg. 763-764** ● Quick Draw TE pg. 764 ● SE pg. 763-764
Learning Opportunities/Strategies: **Lesson 3: Hands On: Understand Area** **Objective:** Students will count unit squares to find the area of a figure. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: "How are perimeter and area related and how are they different?" ● Developing Vocabulary ● Problem of the Day **Build:** ● Draw It **Practice:** ● Try It	**Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 765A** ● New Vocabulary: area, square unit, unit square **TE/SE pg. 765** **TE/SE pg. 766-767**

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• Talk About It • Practice It	
Apply: • Apply It • Write About It	**TE/SE pg. 768**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 769-770** • Reflect and Clarify TE pg. 770 • SE pg. 769-770
Learning Opportunities/Strategies: **Lesson 4 - Measure Area** **Objective:** Students will use addition to measure the area of a figure.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: • Remind students of the Essential Question: "How are perimeter and area related and how are they different?" • Developing Vocabulary • Problem of the Day	**TE pg. 771A-771B** • New Vocabulary: area
Build: • Investigate the Math: Explore, Model, Extend	**TE/SE pg. 771B**
Practice: • Math in My World • Guided Practice • Talk Math ○ Students turn and talk: "A figure is covered by 10 whole squares and some half-squares. If the area is 12 square units, how many half-squares are there? Explain." • Independent Practice	**TE/SE pg. 771-773** • Assign On Level set: 4-10 (even)
Apply: • Problem Solving • Brain Builders	**TE/SE pg. 774**
Wrap Up: • Complete formative assessment • Assign homework	**TE pg. 775--776** • Exit Slip TE pg. 776 • SE pg. 775-776
Learning Opportunities/Strategies: **Lesson 5: Hands On: Tile Rectangles to Find Area**	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Objective: Students will use tiling to find the area of rectangles.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are perimeter and area related and how are they different?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 779A** ● n/a
Build: ● Draw It	**TE/SE pg. 779**
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 780-781**
Apply: ● Apply It ● Write About It	**TE/SE pg. 782**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 783-784** ● Reflect and Clarify TE pg. 784 ● SE pg. 784-785
Learning Opportunities/Strategies: **Lesson 6 - Area of Rectangles**	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Objective: Students will use the formula for area to find the area of rectangles.	
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How are perimeter and area related and how are they different?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 785A-785B** ● New Vocabulary: formula
Build: ● Investigate the Math: Explore, Model, Extend	**TE/SE pg. 785B**
Practice: ● Math in My World ● Guided Practice ● Talk Math	**TE/SE pg. 785-787**

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○ Students turn and talk: “Explain two ways to find the area of a rectangle.” ● Independent Practice	● Assign On Level set: 3-9 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 788**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 789-790** ● Summarize TE pg. 790 ● SE pg. 789-790
Learning Opportunities/Strategies: **Lesson 7: Hands On: Area and the Distributive Property** **Objective:** Students will use the Distributive Property to find area.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How are perimeter and area related and how are they different?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 791A** ● n/a
Build: ● Draw It	**TE pg. 791B** ● SE pg. 791
Practice: ● Try It ● Talk About It ● Practice It	**TE pg. 791B** ● SE pg. 792 ● SE pg. 792 ● SE pg. 793
Apply: ● Apply It ● Write About It	**TE/SE pg. 794**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 733-734** ● Reflect and Clarify TE pg. 796 ● SE pg. 795-796
Learning Opportunities/Strategies: **Lesson 8 - Area of Composite Figures** **Objective:** Students will find the area of composite figures.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: “How are perimeter and area related and how are they different?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 797A-797B** ● New Vocabulary: composite figure
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 797B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Refer to Example 1. Find another way to decompose the composite figure.” ● Independent Practice	**TE/SE pg. 797-799** ● Assign On Level set: 3, 5, 6
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 800**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 801-802** ● Quick Draw TE pg. 802 ● SE pg. 801-802
Learning Opportunities/Strategies: **Lesson 9 - Area and Perimeter** **Objective:** Students will recognize the relationship between area and perimeter.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How are perimeter and area related and how are they different?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 805A-805B** ● Review Vocabulary: area, perimeter
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 805B**
Practice: ● Math in My World ● Guided Practice ● Talk Math	**TE/SE pg. 805-807**

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○ Students turn and talk: “Refer to Example 2. Describe the length and width of a different rectangle you could have drawn.” ● Independent Practice **Apply:** ● Problem Solving ● Brain Builders **Wrap Up:** ● Complete formative assessment ● Assign homework **Learning Opportunities/Strategies:** **Lesson 10 - Problem Solving Investigation: Strategy: Draw a Diagram** **Objective:** Students will draw a diagram to solve problems. **Review Homework:** Review homework problems as needed. **Launch:** ● Remind students of the Essential Question: “How are perimeter and area related and how are they different?” ● Developing Vocabulary ● Problem of the Day **Build:** ● Prepare ● Learn the Strategy **Practice:** ● Practice the Strategy **Apply:** ● Apply the Strategy ● Brain Builders ● Review the Strategies **Wrap Up:** ● Complete formative assessment ● Assign homework **Learning Opportunities/Strategies:** **Chapter 13 Review and Reflect** **Objective:** Assess students’ understanding of the vocabulary and key concepts in this chapter.	● Assign On Level set: 3, 5, 6 **TE/SE pg. 808** **TE/SE pg. 809-810** ● Turn to Your Partner TE pg. 810 ● SE pg. 809-810 **Resources:** **Follow corresponding Lesson Presentation Slides.** **Student Homework Page** **TE pg. 811A-811B** ● n/a **TE pg. 811B** ● counters ● TE/SE pg. 811 **TE/SE pg. 812** **TE/SE pg. 813-814** **TE/SE pg. 815-816** ● Ticket Out the Door TE pg. 816 ● SE pg. 815-816 **Resources:**

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Review Homework: Review homework problems as needed. **Essential Question:** ● Remind students of the Essential Question: "How are perimeter and area related and how are they different?" **Review:** ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders **Reflect:** ● Complete the graphic organizer **Assign homework:**	**Student Homework Page** **TE/SE pg. 817** **TE/SE pg. 818** **TE/SE pg. 819** **TE/SE pg. 819** **TE/SE pg. 820** **N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path

provide	demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

Chapter Fourteen: Geometry

Stage 1: Desired Results

Standards & Indicators:

NJSLS for Mathematics

- **3.G.1 -** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
- **3.G.2 -** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape

NJSLS for Mathematical Practice

- **1. -** Make sense of problems and persevere in solving them.
- **2. -** Reason abstractly and quantitatively.
- **3. -** Construct viable arguments and critique the reasoning of others.
- **4. -** Model with mathematics.
- **5. -** Use appropriate tools strategically.
- **6. -** Attend to precision.

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- **7. -** Look for and make use of structure.

Central Idea / Enduring Understanding:	**Essential/Guiding Question**:
Students will… ● classify polygons ● describe a triangle using its angles and sides ● classify quadrilaterals ● categorize quadrilaterals according to attributes ● separate a shape into parts with equal areas	● How can geometric shapes help me solve real-world problems?
Content: ● Hands On: Angles ● Polygons ● Hands On: Triangles ● Quadrilaterals ● Shared Attributes of Quadrilaterals ● Problem Solving Investigation: Guess, Check, and Revise ● Partition Shapes	**Skills (Objectives):** ● Explore angles of two-dimensional figures ● Describe and classify polygons by their attributes ● Describe and classify triangles by their attributes ● Identify, describe, and classify quadrilaterals by their attributes. ● Describe the shared attributes of quadrilaterals. ● Use the guess, check, and revise strategy to solve problems. ● Partition shapes into equal sections and write unit fractions to represent each area.

Interdisciplinary Connection(s):

NJSLS for Literacy

- **RF.3.3 -** Know and apply grade-level phonics and word analysis skills in decoding and encoding words.
- **RF.3.4 -** Read with sufficient accuracy and fluency to support comprehension.
- **SL.3.1** - Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.
- **SL.3.3 -** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **SL.3.6** - Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.
- **L.3.1 -** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- **L.3.2** - Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing
- **L.3.3** - Use knowledge of language and its conventions when writing, speaking, reading, or listening.
- **L.3.4** - Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.
- **L.3.6** - Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships (e.g., After dinner that night we went looking for them).

NJSLS for Social Studies

- **6.1.5.GeoHE.2:** Cite examples of how technological advances have changed the environment in New Jersey and the United States (e.g., energy, transportation, communications).
- **6.1.5.HistoryUP.7:** Describe why it is important to understand the perspectives of other cultures in an interconnected world.
- **6.1.5.CivicsHR.4:** Identify actions that are unfair or discriminatory, such as bullying, and propose solutions to address such actions.

NJSLS for Science

- **3-5-ETS1-2.** - Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

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NJSLS for Career Readiness, Life Literacies, and Key Skills

- **9.2.5.CAP.1 -** Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
- **9.2.5.CAP.2 -** Identify how you might like to earn an income.
- **9.4.5.CI.3 -** Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
- **9.4.5.CI.4 -** Research the development process of a product and identify the role of failure as a part of the creative process.
- **9.4.5.CT.1 -** Identify and gather relevant data that will aid in the problem-solving process.
- **9.4.5.CT.3 -** Describe how digital tools and technology may be used to solve problems.
- **9.4.5.CT.4 -** Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
- **9.4.5.DC.4 -** Model safe, legal, and ethical behavior when using online or offline technology.
- **9.4.5.DC.5 -** Identify the characteristics of a positive and negative online identity and the lasting implications of online activity.
- **9.4.5.DC.6 -** Compare and contrast how digital tools have changed social interactions.
- **9.4.5.IML.2 -** Create a visual representation to organize information about a problem or issue.
- **9.4.5.IML.3 -** Represent the same data in multiple visual formats in order to tell a story about the data.
- **9.4.5.IML.6 -** Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions.
- **9.4.5.TL.1 -** Compare the common uses of at least two different digital tools and identify the advantages and disadvantages of using each.

Stage 2: Assessment Evidence

Diagnostic Assessment:

- Am I Ready?

Summative Assessment:

- My Review
- Reflect
- Chapter 14 - Assessment
- Chapter 14 - Performance Task

Formative Assessments:

- Reflect and Clarify
- Quick Draw
- Ticket Out the Door
- Summarize
- Self-Assessment
- Talk Math
- Independent Practice
- Check My Progress

Benchmark Assessment:

- N/A

Stage 3: Learning Plan

Learning Opportunities/Strategies:

Chapter Introduction

Objective: Use diagnostic resources to determine which level of instruction is needed to help students get ready for the chapter.

Chapter Introduction:

- Introduce the chapter by discussing the theme, "Shapes in Our World."
- View online video to spark a discussion about how shapes are used in math.

Resources:

TE pg. 821

- TE/SE pg. 821
- Online Video
- TE/SE pg. 821

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• Introduce the Essential Question: “How can geometric shapes help me solve real-world problems?”	
Am I Ready? • Complete the “Am I Ready?” assessment to determine if students have the foundational skills they need in order to successfully learn the new skills and concepts presented in this chapter.	**TE/SE pg. 823**
My Math Words • Review vocabulary words and complete “My Math Words” activity.	**TE/SE pg. 824** • Review Vocabulary: rectangle, square, triangle
My Vocabulary Cards • Introduce vocabulary words and complete “My Vocabulary Cards” activity.	**TE/SE pg. 825-826** • New Vocabulary: angle, attribute, endpoint, hexagon, octagon, parallel, parallelogram, pentagon
My Foldable • This foldable provides practice in classifying shapes by their number of sides as well as an opportunity to produce examples and non-examples of various polygons..	**TE/SE pg. 827-832**
Wrap Up • Math at Home: Family Letter - Student signs it and presents it to parents/guardians.	**Online** • Must print letter
Learning Opportunities/Strategies: **Lesson 1 - Hands On: Angles** **Objective:** Students will explore angles of two-dimensional figures.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Launch: • Remind students of the Essential Question: “How can geometric shapes help me solve real-world problems?” • Developing Vocabulary • Problem of the Day	**TE pg. 833A** • New Vocabulary: angle, vertex, endpoint, ray, right angle
Build: • Build It	**TE pg. 833** • geoboards, rubber bands, square pattern blocks, index cards
Practice: • Try it • Talk About It • Practice It	**TE/SE pg. 834-835** • geoboards, rubber bands, triangle and hexagon pattern blocks, index cards

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Apply: ● Apply It ● Write About It	**TE/SE pg. 836**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 837-838** ● Reflect and Clarify TE pg. 838 ● SE pg. 837-838
Learning Opportunities/Strategies: **Lesson 2 - Polygons** **Objective:** Students will describe and classify polygons by their attributes.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can geometric shapes help me solve real-world problems?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 839A-839B** ● New Vocabulary: attribute, hexagon, octagon, pentagon, polygon, quadrilateral, triangle
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 839B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "What attributes do the shapes in the Key Concept box have in common?" ● Independent Practice	**TE/SE pg. 839-840** ● Assign On Level set: 3-9 (odd)
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 842**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 843-844** ● Quick Draw TE pg. 844 ● SE pg. 843-844
Learning Opportunities/Strategies: **Lesson 3: Hands On: Triangles** **Objective:** Students will describe and classify triangles by their attributes.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**

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Launch: ● Remind students of the Essential Question: “How can geometric shapes help me solve real-world problems?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 845A** ● New Vocabulary: right triangle
Build: ● Measure It ● Talk About It	**TE/SE pg. 845** ● inch ruler
Practice: ● Try It ● Talk About It ● Practice It	**TE/SE pg. 846-847**
Apply: ● Apply It ● Write About It	**TE/SE pg. 848**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 849-850** ● Reflect and Clarify TE pg. 850 ● SE pg. 849-850
Learning Opportunities/Strategies: **Lesson 4 - Quadrilaterals** **Objective:** Students will identify, describe, and classify quadrilaterals by their attributes.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: “How can geometric shapes help me solve real-world problems?” ● Developing Vocabulary ● Problem of the Day	**TE pg. 851A-851B** ● New Vocabulary: parallel, parallelogram, rectangle, rhombus, trapezoid, square
Build: ● Investigate the Math: Explore, Model, Extend	**TE/SE pg. 851B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: “Tell why a square is a special kind of parallelogram.” ● Independent Practice	**TE/SE pg. 851-853** ● Assign On Level set: 3-5

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Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 854**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 855-856** ● Ticket Out the Door TE pg. 856 ● SE pg. 855-856
Learning Opportunities/Strategies: **Lesson 5 - Shared attributes of Quadrilaterals** **Objective:** Students will describe the shared attributes of quadrilaterals.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can geometric shapes help me solve real-world problems?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 859A-759B** ● Review Vocabulary: attribute, quadrilateral
Build: ● Investigate the Math: Explore, Model, Extend	**TE/SE pg. 859B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Describe how a square has all the attributes of a rectangle." ● Independent Practice	**TE/SE pg. 859-861** ● Assign On Level set: 4, 6
Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 862**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE pg. 863-864** ● Summarize TE pg. 864 ● SE pg. 863-864
Learning Opportunities/Strategies: **Lesson 6 - Problem solving Investigation: Strategy: Guess, Check, and Revise** **Objective:** Students will use guess, check, and revise strategy to solve problems.	**Resources:** **Follow corresponding Lesson Presentation Slides.**

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Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can geometric shapes help me solve real-world problems?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 865A-865B** ● n/a
Build: ● Prepare ● Learn the strategy	**TE pg. 865B** ● TE/SE pg. 865
Practice: ● Practice the Strategy	**TE/SE pg. 866**
Apply: ● Apply the Strategy ● Brain Builders ● Review the Strategy	**TE/SE pg. 867-868**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 869-870** ● Ticket Out the Door TE pg. 870 ● SE pg. 869-870
Learning Opportunities/Strategies: **Lesson 7 - Partition Shapes** **Objective:** Students will partition shapes into equal sections and write unit fractions to represent each area.	**Resources:** **Follow corresponding Lesson Presentation Slides.**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Launch: ● Remind students of the Essential Question: "How can geometric shapes help me solve real-world problems?" ● Developing Vocabulary ● Problem of the Day	**TE pg. 871A-871B** ● Review Vocabulary: partition
Build: ● Investigate the Math: Explore, Model, Extend	**TE pg. 871B**
Practice: ● Math in My World ● Guided Practice ● Talk Math ○ Students turn and talk: "Explain how you would partition a pizza so that you and seven friends each get an equal share." ● Independent Practice	**TE/SE pg. 871-873** ● Assign On Level set: 3-9 (odd)

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Apply: ● Problem Solving ● Brain Builders	**TE/SE pg. 874**
Wrap Up: ● Complete formative assessment ● Assign homework	**TE/SE pg. 875-876** ● Quick Draw TE pg. 876 ● SE pg. 875-876
Learning Opportunities/Strategies: **Chapter 14 Review and Reflect** **Objective:** Assess students' understanding of the vocabulary and key concepts in this chapter.	**Resources:**
Review Homework: Review homework problems as needed.	**Student Homework Page**
Essential Question: ● Remind students of the Essential Question: "How can geometric shapes help me solve real-world problems?"	
Review: ● Vocabulary Check ● Concept Check ● Problem Solving ● Brain Builders	**TE/SE pg. 877** **TE/SE pg. 878** **TE/SE pg. 879** **TE/SE pg. 879**
Reflect: ● Complete the graphic organizer	**TE/SE pg. 880**
Assign homework:	**N/A**

Differentiation *Please note: Teachers who have students with 504 plans that require curricular accommodations are to refer to Struggling and/or Special Needs Section for differentiation.

High-Achieving Students	On Grade Level Students	Struggling Students	Special Needs/ELL
Small Group ● Utilize gradual release model ● Modify problem set to "Beyond Level" ● Focus on critical thinking questions at the end of the lesson. Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path	Small Group ● Utilize gradual release model ● Modify problem set to "On Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions at the end of the lesson. Technology	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions	Small Group ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● Utilize gradual release model ● Modify problem set to "Approaching Level" ● Utilize "Reteach" problem-set to model questions. ● Focus on critical thinking questions

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● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide	at the end of the lesson. ● Pair with on grade level or higher-achieving students to problem solve Technology ● Participate in RedBird Math individualized learning path ● Participate in Reflex Math individualized learning path ● Utilize McGraw Hill eTools for online manipulative support ● Utilize McGraw Hill Personal Tutor to demonstrate a model/sample ● Utilize McGraw Hill online lesson animations to demonstrate a model/sample ● Utilize the McGraw Hill English Language Learner Guide to provide foundational support ● Specific use of modalities - kinesthetic, visual, auditory, tactile ● The multilingual eGlossary can support vocabulary Learning Station ● My Learning Station student-led activity

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Math Pacing Guide
Grade 3

MP	Chapter Breakdown	# of days allotted	# of days subtotal	# of days cumulative
MP1	**McGraw Hill: My Math - Chapter 1 - Place Value**		11	11
	• Chapter Introduction	1		
	• Lessons 1-6 (@ 1 lesson per day)	6		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	2		
MP1	**McGraw Hill: My Math - Chapter 2 - Addition**		14	25
	• Chapter Introduction	1		
	• Lessons 1-9 (@ 1 lesson per day)	9		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	2		
MP1	**McGraw Hill: My Math - Chapter 3 - Subtraction**		12	37
	• Chapter Introduction	1		
	• Lessons 1-7 (@ 1 lesson per day)	7		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	2		
MP1	**Benchmark Test #1 (covers chapters 1-3).**	1		38
MP1-2	**McGraw Hill: My Math - Chapter 4 - Understand Multiplication**		11	49
	• Chapter Introduction	1		
	• Lessons 1-6 (@ 1 lesson per day)	6		
	• Review and Reflect	1		
	• Chapter 4 - 21st Century Assessment - Administer online • Chapter 4 Performance Task in Student Edition - Administer paper/pencil	1		
	• Flex Days	2		
MP2	**McGraw Hill: My Math - Chapter 5 - Understand Division**		11	60
	• Chapter Introduction	1		
	• Lessons 1-6 (@ 1 lesson per day)	6		
	• Review and Reflect	1		

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	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	2		
MP2	**McGraw Hill: My Math - Chapter 6 - Multiplication and Division Patterns**		14	74
	• Chapter Introduction	1		
	• Lessons 1-9 (@ 1 lesson per day)	9		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	2		
MP2	**McGraw Hill: My Math - Chapter 7 - Multiplication and Division**		12	86
	• Chapter Introduction	1		
	• Lessons 1-8 (@ 1 lesson per day)	8		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	1		
MP2	**Benchmark Test #2 (covers chapters 4-7).**	1		87
MP2-3	**McGraw Hill: My Math - Chapter 8 - Apply Multiplication and Division**		13	100
	• Chapter Introduction	1		
	• Lessons 1-9 (@ 1 lesson per day)	9		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	1		
MP3	**McGraw Hill: My Math - Chapter 9 - Properties and Equations**		13	113
	• Chapter Introduction	1		
	• Lessons 1-9 (@ 1 lesson per day)	9		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Days	1		
MP3	**McGraw Hill: My Math - Chapter 10 - Fractions**		12	125
	• Chapter Introduction	1		
	• Lessons 1-8 (@ 1 lesson per day)	8		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		

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	• Flex Day	1		
MP3	**Benchmark Test #3 (covers chapters 8-10).**	1		126
MP3-4	**McGraw Hill: My Math - Chapter 11 - Measurement**		11	137
	• Chapter Introduction	1		
	• Lessons 1-7 (@ 1 lesson per day)	7		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Day	1		
MP4	**McGraw Hill: My Math - Chapter 12 - Represent and Interpret Data**		13	150
	• Chapter Introduction	1		
	• Lessons 1-8 (@ 1 lesson per day) and Chapter Project	9		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Day	1		
MP4	**McGraw Hill: My Math - Chapter 13 - Perimeter and Area**		14	164
	• Chapter Introduction	1		
	• Lessons 1-10 (@ 1 lesson per day)	10		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Day	1		
MP4	**McGraw Hill: My Math - Chapter 14 - Geometry**		15	179
	• Chapter Introduction	1		
	• Lessons 1-7 (@ 1 lesson per day)	11		
	• Review and Reflect	1		
	• Chapter Assessment • Chapter Performance Task	1		
	• Flex Day	1		
MP4	**Benchmark Test 4 (covers chapters 1-14).**	1		180