Subject Area: Mathematics Grade Level: 3 Bedminster Township School

Unit 1: Three-Digit Numbers: Place Value, Addition, and Subtraction

Dates: September/October	Time Frame: 26 Days

OVERVIEW

In this unit, students extend their understanding of place value and adding and subtracting with three-digit numbers. Students apply their place-value knowledge to round numbers to the nearest ten or nearest hundred. They learn that rounded numbers can be used to estimate and are easier to use when calculating. Students use models such as a number line and a hundred chart to round two-digit numbers to the nearest ten. They learn the rules for rounding using the halfway number to decide whether to round a number up or down. Students use similar reasoning and models to round three-digit numbers to the nearest ten or hundred.

Students will add and subtract by breaking apart three-digit numbers into hundreds, tens, and ones, first using base-ten blocks, number lines, and place-value charts and then place-value understanding. They will then be introduced to the standard addition and subtraction algorithms. When regrouping is required, students will show regrouped ones and tens as digits above the tens and hundreds columns.

ENDURING UNDERSTANDINGS

- Rounding numbers can be useful when estimating. Knowing how to round will help you with addition and subtraction.
- You can use what you know about place value to add or subtract using partial sums or differences and other strategies.

SKILL AND KNOWLEDGE OBJECTIVES

Routine Objectives:
- Use the Try-Discuss-Connect routine to establish best practices during an *i-Ready Classroom Mathematics* lesson. (Lesson 0)
- Have students learn how to make sense of problems, explain their thinking, and discuss strategies used to solve problems. (Lesson 0)
- Help students understand how to appropriately critique and compare the solution strategies. (Lesson 0)
- Establish hand signals such as thumbs-up or thumbs-down for students to signal agreement or disagreement with strategies and student responses, as well as provide the teacher with formative feedback. (Lesson 0)
- Help students develop good use of mathematical language and support sense-making as they learn to ask good questions, clearly describe their thinking to others, and reword and refine mathematical ideas. (Lesson 0)
- Apply math knowledge and modeling techniques to new, similar problems. (Lesson 0)

Content Objectives:
- Write three-digit numbers in word form and expanded form. (Lesson 0)
- Compare three-digit numbers. (Lesson 0)
- Break apart numbers and use place-value understanding to add three-digit numbers. (Lesson 0)
- Round two- and three-digit numbers to the nearest ten. (Lesson 1)
- Round three-digit numbers to the nearest hundred. (Lesson 1)
- Explain how to round numbers to the nearest ten and to the nearest hundred. (Lesson 1)
- Use a variety of strategies to add three-digit numbers. (Lesson 2)
- Use a variety of strategies to subtract three-digit numbers. (Lesson 3)

Language Objectives:

- Describe what rounding is. (Lesson 1)
- Tell why rounding is useful for estimating. (Lesson 1)
- Add three-digit numbers using place value reasoning and describe any necessary groupings. (Lesson 2)
- Summarize word problems involving addition. (Lesson 2)
- Compare different approaches to solving a word problem used by others and identify connections among the approaches. (Lesson 2)
- Subtract three-digit numbers using place-value reasoning and describe any necessary regroupings. (Lesson 3)
- Draw an open number line to find the difference of two numbers. (Lesson 3)
- Summarize word problems involving subtraction. (Lesson 3)
- Compare the different approaches to solving a word problem used by others and identify connections among the approaches. (Lesson 3)

ASSESSMENTS

Pre-Assessment:
- Diagnostic Assessment (*i-Ready Classroom Central*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext*)
- Lesson Quizzes (attached in the unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)
- Apply It (in *Student Worktext*)
- Reflect Questions (in *Student Worktext*)
- Self-Reflection (in *Student Worktext*)
- Math Journal Questions (in *Student Worktext*)
- Unit Review (in *Student Worktext*)

Summative Assessment:
- Performance Task (in *Student Worktext*)
- Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)

RESOURCES

i-Ready Classroom Mathematics **Grade 3:**
→ **PRINT RESOURCES:**
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations
    - Connect to Culture
    - Discussion Prompts and Instructional Support
  - *Student Worktext* (Use the blue pages for in-class instruction and practice)
- **Independent Practice for School or Home**
  - *Teacher's Guide*
    - Additional Practice
    - Cumulative Practice
  - *Student Worktext* (Use the green pages for independent practice)
    - Additional Practice
    - Cumulative Practice
  - *Teacher Toolbox*
    - Fluency and Skills Practice
    - Unit Game
    - Cumulative Practice
- **Assessments and Reports**
  - *Teacher's Guide*
    - Starts
    - Support Whole Group/Partner Discussion
    - Ask/Listen Fors
    - Common Misconceptions

- ■ Error Alerts
- ■ Close: Exit Ticket
  - ○ *Student Worktext*
    - ■ Self Checks
    - ■ Apply It
    - ■ Reflect Questions
    - ■ Self Reflection
    - ■ Math Journal Questions
    - ■ Unit Review
  - ○ *Teacher Toolbox*
    - ■ Editable Lesson Quizzes
    - ■ Editable Unit Assessments
- **Differentiation**
  - ○ *Before the Unit/Lesson: Prerequisites Report*
    - ■ Prerequisites Report: Resources
  - ○ *During the Lesson: Teacher's Guide*
    - ■ Hands-On Activities or Visual Models
    - ■ Deepen Understanding
    - ■ ELL Differentiated Instruction
    - ■ Refine Sessions
  - ○ *After the Lesson: Teacher Toolbox*
    - ■ Reteach: Tools for Instruction
    - ■ Reinforce: Math Center Activities
    - ■ Extend: Enrichment Activities

→ **DIGITAL RESOURCES**
- **In-Class Instruction and Practice:**
  - ○ Interactive Tutorials
  - ○ Digital Math Tools
  - ○ PowerPoint Slides
- **Independent Practice for School or Home**
  - ○ Digital Math Tools
  - ○ Learning Games
  - ○ Interactive Practice
- **Assessments and Reports**
  - ○ Diagnostic
  - ○ Lesson, Mid-Unit, and Unit Comprehension Checks
  - ○ Prerequisites Report
  - ○ Comprehension Check Reports
- **Differentiation**
  - ○ *Interactive Tutorials*
  - ○ *Digital Math Tools*
  - ○ *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:

Number and Operations in Base-Ten
- **3.NBT.A.** Use place value understanding and properties of operations to perform multi-digit arithmetic.
- **3.NBT.A.1** Use place value understanding to round whole numbers to the nearest 10 or 100.
- **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Standards for Mathematical Practice (SMP):

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

NJ Student Learning Standards (NJSLS) for English Language Arts:

- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, and speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of the information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their own ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy Connection)
- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text complexity or above, with scaffolding as needed. (Literacy Connection)
- **RL.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*). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Science:

- **3-S-LS2-1** Construct an argument that some animals form groups that help members survive. (Literacy Connection)

Standard 9: 21st Century Life and Careers:

Career Ready Practices:
- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.3.C.1:** Explain why people borrow money and the relationship between credit and debit.
- **9.2.4.A.4:** Explain why knowledge and skills acquired in elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem solving process.

Standards - 8.1 Computer Science and Design Thinking

- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES - activities/topics [optional]

Self-Awareness and Self-Management:

- Students begin the school year or instructional unit by drawing what being a mathematician "looks and feels like" to them. Students are encouraged to add more affirmative language as they learn more math skills. Similar to a feeling chart with "Today, I feel like…," students would be encouraged to write or say, "As a mathematician, I feel… [satisfied that I solved this problem, curious or confused about that solution, etc.]."
- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely allow students to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially?," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the ***How Does This Math Make Me Feel? Sheet*** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self-Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discuss It* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, and identifying the feelings and thoughts of others who adopt these strategies.

Relationship Skills:
- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved to be more successful.

Interdisciplinary Connections
- Read just-right books in the content areas
- Use mentor texts to deliver Social Studies content
- Compare content area ideas and issues to what our characters deal with in our read-alouds and mentor texts
- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills
- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detailed ideas and lessons

21st Century Skills Integration
- Use Venn diagrams and a T chart to compare and contrast events
- Use highlighters, notecards, post-its, and other tools to keep track of story events details, and ideas.

Unit 1: Three-Digit Numbers: Place Value, Addition, and Subtraction

DAYS 1 & 2 DIAGNOSTIC ASSESSMENT	DAY 3	DAY 4	DAY 5	DAY 6
Activities: Students take the Diagnostic Assessment. It takes two days to administer. See i-Ready Classroom Central for information.	**Lesson 0:** Try-Discuss-Connect Routine **Session 1:** Write Three-Digit Numbers Different Ways **Materials:** *Grade 3 Lessons for the First Five Days* *Lesson 0 Student Practice Pages* **(Both can also be found under the *Classroom Resources* tab on the *Teacher Toolbox* in the *Teacher Digital Experience*)** **Activities:** As outlined on pages 2-3 in *Grade 2 Lessons for the First Five Days* 1) Try-Discuss-Connect routine introduction *(5 min)* 2) Try It *(15 min)* - *Make sense of the problem (10 min)* - *Solve and support your thinking (5 min)* 3) Discuss It *(10 min)* - *Share your thinking with a partner*	**Lesson 0:** Try-Discuss-Connect Routine **Session 2:** Write Three-Digit Numbers Different Ways **Materials:** *Grade 3 Lessons for the First Five Days* *Lesson 0 Student Practice Pages* **(Both can also be found under the *Classroom Resources* tab on the *Teacher Toolbox* in the *Teacher Digital Experience*)** **Activities:** As outlined on pages 4-7 in *Grade 3 Lessons for the First Five Days* 1) Discuss It *(10 min)* - Compare class strategies 2) Connect It *(20 min)* - *Make sense of the problem (5 min)* - Solve and support your thinking *(10 min)* 3) Discuss It *(10 min)* - *Share your thinking with a partner* **Additional Practice:** *Lesson 0 Student Practice Pages* 5-6	**Lesson 0:** Try-Discuss-Connect Routine **Session 3:** Ways to Compare Three-Digit Numbers **Materials:** *Grade 3 Lessons for the First Five Days* *Lesson 0 Student Practice Pages* **(Both can also be found under the *Classroom Resources* tab on the *Teacher Toolbox* in the *Teacher Digital Experience*)** **Activities:** As outlined on pages 8-9 in *Grade 3 Lessons for the First Five Days* 1) Try It *(15 min)* - *Make sense of the problem (5 min)* - Solve and support your thinking *(10 min)* 2) Discuss It *(10 min)* - *Share your thinking with a partner*	**Lesson 0:** Try-Discuss-Connect Routine **Session 4:** Ways to Compare Three-Digit Numbers **Materials:** *Grade 3 Lessons for the First Five Days* *Lesson 0 Student Practice Pages* **(Both can also be found under the *Classroom Resources* tab on the *Teacher Toolbox* in the *Teacher Digital Experience*)** **Activities:** As outlined on pages 10-13 in *Grade 3 Lessons for the First Five Days* 1) Discuss It *(10 min)* - Compare class strategies 2) Connect It *(20 min)* - *Make connections and reflect on what you have learned (15 min)* - Apply your thinking to a new problem *(5 min)* 3) Discuss It *(10 min)* - *Share your thinking with a partner* **Additional Practice:** *Lesson 0 Student Practice Pages* 11-12
DAY 7 **Lesson 0:** Try-Discuss-Connect Routine **Session 5:** Adding Three-DIgit Numbers **Materials:** *Grade 3 Lessons for the First Five Days* *Lesson 0 Student Practice Pages* **(Both can also be found under the *Classroom Resources* tab on the *Teacher Toolbox* in the *Teacher Digital Experience*)** **Activities:** As outlined on pages 14- in *Grade 3 Lessons for the First Five Days* 1) Try It *(15 min)* - *Make sense of the problem (5 min)* - *Solve and support your thinking (10 min)* 2) Discuss It *(15 min)*	**DAY 8** **Lesson 1:** Use Place Value to Round Numbers **Session 1 EXPLORE:** Using Place Value to Round Numbers **Materials:** *Student Worktext* *Teacher Guide Volume 1* **Activities:** Before beginning the lesson, have students complete the Unit 1 Self-Check on page 1 in their *Student Worktext*. Then, as outlined on pages 5-8 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Solve It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 7-8	**DAY 9** **Lesson 1:** Use Place Value to Round Numbers **Session 2 DEVELOP:** Rounding to the Nearest Ten **Materials:** *Student Worktext* *Teacher Guide Volume 1* *Digital Math Tools* **Activities:** As outlined on pages 9-14 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Solve It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 13-14 **Fluency Practice:** Rounding to the Nearest Ten	**DAY 10** **Lesson 1:** Use Place Value to Round Numbers **Session 3 DEVELOP:** Rounding to the Nearest Hundred **Materials:** *Student Worktext* *Teacher Guide Volume 1* *Digital Math Tools* **Activities:** As outlined on pages 15-20 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Solve It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 19-20 **Fluency Practice:** Rounding to the Nearest Hundred	**DAY 11** **Lesson 1:** Use Place Value to Round Numbers **Session 4 REFINE:** Using Place Value to Round Numbers **Materials:** *Student Worktext* *Teacher Guide Volume 1* *LESSON 1 QUIZ* **Activities:** As outlined on pages 21-24b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ

- Share your thinking with a partner (5 min) *- Compare class strategies (10 min)* 3) Connect It *(15 min)* *- Make connections and reflect on what you have learned (10 min)* *- Apply your thinking to a new problem (5 min)* **Additional Practice:** *Lesson 0 Student Practice Pages* 17-18				
DAY 12 **Lesson 2:** Add Three-Digit Numbers **Session 1 EXPLORE:** Adding Three-Digit Numbers **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 27-30 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 29-30	**DAY 13** **Lesson 2:** Add Three-Digit Numbers **Session 2 DEVELOP:** Using Place-Value Strategies to Add **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 31-36 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Solve It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 35-36 **Fluency Practice:** Using Place-Value Strategies to Add *(Digital Math Tools)*	**DAY 14** **Lesson 2:** Add Three-Digit Numbers **Session 3 DEVELOP:** Connecting Place-Value Strategies to Add **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 37-42 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 41-42 **Fluency Practice:** Connecting Place-Value Strategies to an Algorithm *(Digital Math Tools)*	**DAY 15** **Lesson 2:** Add Three-Digit Numbers **Session 4 REFINE:** Adding Three-Digit Numbers **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● LESSON 2 QUIZ **Activities:** As outlined on pages 43-46b in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 16** **Lesson 3:** Subtract Three-Digit Numbers **Session 1 EXPLORE:** Subtracting Three-Digit Numbers **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 49-52 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Connect It *(15 min)* 4) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 51-52
DAY 17 **Lesson 3:** Subtract Three-Digit Numbers **Session 2 DEVELOP:** Using Place-Value Strategies to Subtract **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 53-58 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Picture It & Model It *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 57-58 **Fluency Practice:** Using Place-Value Strategies to Subtract *(Digital Math Tools)*	**DAY 18** **Lesson 3:** Subtract Three-Digit Numbers **Session 3 DEVELOP:** Adding On to Subtract **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 59-64 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Model Its *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 63-64 **Fluency Practice:** Adding On to Subtract *(Digital Math Tools)*	**DAY 19** **Lesson 3:** Subtract Three-Digit Numbers **Session 4 DEVELOP:** Connecting Place-Value Strategies to an Algorithm **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 65-70 in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Model Its *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 69-70 **Fluency Practice:** Connecting Place-Value Strategies to an Algorithm *(Digital Math Tools)*	**DAY 20** **Lesson 3:** Subtract Three-Digit Numbers **Session 5 REFINE:** Subtracting Three-Digit Numbers **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● LESSON 3 QUIZ **Activities:** As outlined on pages 71-74b in *Teacher Guide Volume 1:* 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 21** **Math in Action:** Use Rounding and Operations **Session 1** **Materials (for each student):** ● 1-Centimeter Grid Paper ● Solution Sheet 1 ● Base-Ten Blocks (Digital Math Tools) ● *Student Worktext* **Activities:** As outlined on pages 76-81 in *Teacher Guide Volume 1:* 1) Plan It *(5 min)* 2) Solve It *(10 min)* 3) Reflect *(5 min)* 4) Plan and Solve It *(10 min)* 5) Reflect *(5 min)*

DAY 22	DAY 23	DAY 24	DAY 25	DAY 26
Math in Action: Use Rounding and Operations **Session 2**	**Unit Game:** *Race to 1,000* **(OPTIONAL)**	**Literacy Connection (Science):** "Beaver Lodge" **(OPTIONAL)**	**Unit 1: Unit Review**	**Unit 1: Unit Assessment**
Materials: ● *Teacher Guide Volume 1* ● Base-Ten Blocks (Digital Math Tools) ● *Student Worktext*	**Materials (for each pair):** ● *Race to 1,000 Games* (Recording Sheet & 2 sets of 0-9 Digit Cards) ● *Teacher Guide Volume 1*	**Materials:** ● "Beaver Lodges" ● Literacy Connection Problems	Answer Key ● *Teacher Guide Volume 1*	**Materials:** ● *Teacher Guide Volume 1* ● *Student Worktext*	**Materials:** ● *Unit 1 Assessment: Form A	Form B* ● *Teacher Guide Volume 1*
Activities: As outlined on pages 82-83 in *Teacher Guide Volume 1*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*	**Activities:** As outlined on page 84 in *Teacher Guide Volume 1*: Have students play *Race to 1,000* in pairs to reinforce adding and subtracting within 1,000.	**Activities:** As outlined on page 85 in *Teacher Guide Volume 1*: Students read an informational text about how beaver dams are built and use their understanding of adding and subtracting three-digit numbers with a base-ten model and an equation to complete the literacy connection problems.	**Activities:** 1) Have students complete the Unit 1 Self-Reflection on page 75. 2) Students will complete pages 84-86 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. ***Use pages 84-86a in Teacher Guide Volume 1 to guide the discussion.***	**ASSESSMENT:** Students will take their Unit 1 Assessment. ***See the Scoring Guide on page 86e in Teacher Guide Volume 1.***

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ ELL Students; Students At Risk; Gifted Students) **by:**

Presentation Accommodations
- Use alternate texts at a lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use a magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of the teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts

Response Accommodations
- Use sign language, a communication device, Braille, other technology, or a native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in a small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for a classmate

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Differentiate Instruction, depending on individual student 504 plan/needs:

Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe

- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations
- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Get graded or assessed using a different standard

Subject Area: Mathematics
Grade Level: 3
Bedminster Township School

Unit 2:
Multiplication and Division Concepts, Relationships, and Patterns

Dates: October-January	**Time Frame:** 45 Days

OVERVIEW

In this unit, students are introduced to multiplication and division. Students gain a conceptual understanding of multiplication as the total number of equal groups, interpreting equations such as 3 x 5 = 15 as *3 groups of 5 equals 15.* Students learn to think about multiplication as combining equal groups and use drawings of equal groups of objects, arrays, and square tiles to represent a multiplication situation and describe the situation using words and a multiplication equation. Students use skip-counting, equal models, and arrays to find products and learn how to break apart factors into lesser numbers so that they can use their knowledge of multiplying by 0, 1, 2, 5, and 10 to multiply by 3, 4, 6, 7, 8, and 9.

Students then explore the properties of multiplication. They use the commutative property to see that factors multiplied in any order result in the same product and the associative property of multiplication to group factors in different ways. Students use their knowledge of place value, along with multiplication facts and strategies, to multiply one-digit numbers by multiples of 10 and use number properties to find and explain multiplication patterns.

Division is connected to students' prior experience of sharing items into a known number of equal shares and finding the number in each share (or group). Students explore how multiplication and division are related, recognizing that a division problem can be written as a multiplication problem with an unknown

factor, and learning about division and multiplication fact families. Students apply their understanding of division and multiplication to solve one- and two-step word problems.

ENDURING UNDERSTANDINGS

- Multiplication is a way of combining equal groups. Knowing how to work with equal groups will help students with both multiplication and division problems.
- There are many models and strategies to help students multiply. Knowing these strategies, such as breaking apart factors, will help make you more fluent with your multiplication facts.
- Numbers can be multiplied in any order and place value can be used to multiply.
- Division means separating a total number of objects into equal-sized groups. Knowing how to divide will help students find the number of groups or the number of items in a group.

SKILL AND KNOWLEDGE OBJECTIVES

Content Objectives:
- Understand that the symbol x means "Groups of " and that problems such as 5 x 7 refer to 5 groups of 7. (Lesson 4)
- Interpret a multiplication problem situation using pictures, objects, words, numbers and equations. (Lesson 4)
- Understand that repeated addition and skip-counting strategies are strategies for finding a product, but the meaning of multiplication is finding the total number of items in equal-sized groups. (Lesson 4)
- Use strategies such as repeated addition and skip counting by twos, fives, and tens to solve multiplication problems involving multiplying with 0, 1, 5, and 10. (Lesson 5)
- Use models such as arrays and equal groups to solve multiplication problems involving multiplying with 0, 1, 5, and 10. (Lesson 5)
- Interpret a multiplication problem situation using pictures, objects, words, numbers, and equations. (Lesson 5)
- Break apart a factor as a strategy for multiplying (distributive property of multiplication). (Lessons 6 & 7)
- Apply the distributive property of multiplication as a strategy to learn multiplication facts and to solve multiplication problems. (Lessons 6 & 7)
- Make a multiplication problem easier to solve by reversing the order of factors (commutative property of multiplication). (Lesson 6)
- Understand that numbers can be multiplied in any order and the product will be the same (commutative property of multiplication). (Lesson 8)
- Apply the commutative property of multiplication as a strategy to solve multiplication problems. (Lesson 8)
- Understand that three or more factors in a problem can be grouped in different ways and the product will be the same (associative property of multiplication). (Lesson 8)
- Apply the associative property of multiplication as a strategy to solve problems. (Lesson 8)
- Use place-value understanding to multiply a one-digit number by multiples of 10. (Lesson 9)
- Use properties of operations to multiply a one-digit number by multiples of 10. (Lesson 9)
- Understand division as sharing, knowing the number of equal groups and finding the number in each share or group. (Lesson 10)
- Understand division as separating equal shares or groups and finding the number of shares or groups. (Lesson 10)
- Describe stories or contexts for division expressions, such as 24÷4. (Lesson 10)
- Understand the relationship between multiplication and division. (Lesson 11)
- Demonstrate informally that related multiplication and division equations form fact families. (Lesson 11)
- Find the unknown number in a whole-number multiplication or division equations. (Lesson 11)
- Fluently multiply and divide within 100. (Lesson 12)

- Use fact families and the relationship between multiplication and division to find unknown whole numbers in multiplication and division equations. (Lesson 12)
- Solve word problems using equations with the unknown whole number in different places in the equations. (Lesson 12)
- Use hundred charts, addition tables, and multiplication tables to model addition and multiplication patterns and to explain why the patterns make sense. (Lesson 13)
- Use number properties (informally) to find and explain patterns. (Lesson 13)
- Use knowledge of even and odd numbers to find and explain patterns. (Lesson 13)

Language Objectives:

- Read aloud a multiplication equation such as 3 x 2 = 6 as *3 groups of 2 equals 6. (*Lesson 4)
- Draw an array to represent a given multiplication equation. (Lesson 4)
- Write an equation to represent an array or equal group using the x symbol. (Lesson 4)
- Describe a problem situation that could be represented by a given multiplication equation. (Lesson 4)
- Use the key vocabulary terms array, factor, multiplication, multiply, product, and times to communicate precisely. (Lesson 4)
- Write multiplication facts for 0, 1, 2, 5, and 10. (Lesson 5)
- Understand and represent "groups of 0." (Lesson 5)
- Make general statements about multiplying with 0 and 1. (Lesson 5)
- Draw and break apart arrays to demonstrate the distributive property. (Lessons 6 & 7)
- Use parentheses to write expressions that involve more than one operation. (Lessons 6 & 7)
- Write multiplication expressions to represent word problems and visual models. (Lessons 6 & 7)
- Rewrite a multiplication problem with the order of the factors reversed and solve. (Lesson 8)
- Rewrite a multiplication problem with parenthesis in different positions and solve. (Lesson 8)
- Describe patterns in products of one-digit numbers and multiples of 10. (Lesson 9)
- Skip-count by tens. (Lesson 9)
- Rewrite multiples of ten as 10 times a number. (Lesson 9)
- Record the steps used to find the product of a one-digit number and a multiple of ten. (Lesson 9)
- Read the division symbol (÷) as *divided by*. (Lesson 10)
- Write and interpret division equations. (Lesson 10)
- Explain division as sharing equally. (Lesson 10)
- Tell stories or describe contexts for a given division expression. (Lesson 10)
- Describe the relationship between multiplication and division using words or diagrams. (Lesson 11)
- Correctly use the terms *array, divide, divided by, times, factor, product,* and *quotient* when discussing multiplication and division. (Lesson 11)
- Write multiplication and division fact families. (Lesson 12)
- Write related facts to find the unknown number in a multiplication or division equation. (Lesson 12)
- Tell which multiplication or division facts can represent a particular word problem. (Lesson 12)
- Describe number patterns. (Lesson 13)
- Use the key vocabulary terms *pattern, rule, even number,* and *odd number* when discussing patterns. (Lesson 13)

ASSESSMENTS

Pre-Assessment:
- Prerequisites Report (in *Teacher Digital Experience*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext)*
- Lesson Quizzes (attached in unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)

- Apply It (in *Student Worktext)*
- Reflect Questions (in *Student Worktext)*
- Self Reflection (in *Student Worktext)*
- Math Journal Questions (in *Student Worktext)*
- Unit Review (in *Student Worktext)*

Summative Assessment:
- Performance Task (in *Student Worktext)*
- Mid-Unit Assessment - Form A & Form B (also in *Teacher Toolbox)*
- Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)

RESOURCES

i-Ready Classroom Mathematics **Grade 3:**
→ **PRINT RESOURCES:**
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations
    - Connect to Culture
    - Discussion Prompts and Instructional Support
  - *Student Worktext* (Use the blue pages for in-class instruction and practice)
- **Independent Practice for School or Home**
  - *Teacher's Guide*
    - Additional Practice
    - Cumulative Practice
  - *Student Worktext* (Use the green pages for independent practice)
    - Additional Practice
    - Cumulative Practice
  - *Teacher Toolbox*
    - Fluency and Skills Practice
    - Unit Game
    - Cumulative Practice
- **Assessments and Reports**
  - *Teacher's Guide*
    - Starts
    - Support Whole Group/Partner Discussion
    - Ask/Listen Fors
    - Common Misconceptions
    - Error Alerts
    - Close: Exit Ticket
  - *Student Worktext*
    - Self Checks
    - Apply It
    - Reflect Questions
    - Self Reflection
    - Math Journal Questions
    - Unit Review
  - *Teacher Toolbox*
    - Editable Lesson Quizzes
    - Editable Mid-Unit and Unit Assessments
- **Differentiation**
  - *Before the Unit/Lesson: Prerequisites Report*
    - Prerequisites Report: Resources
  - *During the Lesson: Teacher's Guide*
    - Hands-On Activities or Visual Models
    - Deepen Understanding
    - ELL Differentiated Instruction
    - Refine Sessions
  - *After the Lesson: Teacher Toolbox*
    - Reteach: Tools for Instruction
    - Reinforce: Math Center Activities

- ■ Extend: Enrichment Activities
→ **DIGITAL RESOURCES**
- **In-Class Instruction and Practice:**
  - ○ Interactive Tutorials
  - ○ Digital Math Tools
  - ○ PowerPoint Slides
- **Independent Practice for School or Home**
  - ○ Digital Math Tools
  - ○ Learning Games
  - ○ Interactive Practice
- **Assessments and Reports**
  - ○ Diagnostic
  - ○ Lesson, Mid-Unit, and Unit Comprehension Checks
  - ○ Prerequisites Report
  - ○ Comprehension Check Reports
- **Differentiation**
  - ○ *Interactive Tutorials*
  - ○ *Digital Math Tools*
  - ○ *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:

Operations and Algebraic Thinking

- **3.OA.A.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.A.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.A.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.A.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.B.5** Apply properties of operations as strategies to multiply and divide. *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.B.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.C.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 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.D.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.*

Number and Operations in Base Ten

- **3.NBT.A.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.

Standards for Mathematical Practice (SMP):

1. Make sense of problems and persevere in solving them. (Lessons 4-13)
2. Reason abstractly and quantitatively. (Lessons 4-13)
3. Construct viable arguments and critique the reasoning of others. (Lessons 4-13)
4. Model with mathematics. (Lessons 4-13)
5. Use appropriate tools strategically. (Lessons 4-13)

6. Attend to precision. (Lessons 4-13)
7. Look for and make use of structure. (Lessons 6-9, 11-13)
8. Look for and express regularity in repeated reasoning. (Lessons 5-9, 12-13)

NJ Student Learning Standards (NJSLS) for English Language Arts:

- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their own ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy Connection)
- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. (Literacy Connection)
- **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*). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Science:

- **3-S-LS2-1** Construct an argument that some animals form groups that help members survive. (Literacy Connection)

Standard 9: 21st Century Life and Careers:
Career Ready Practices:

- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.4.C.1:** Explain why people borrow money and the relationship between credit and debit.
- **9.2.4.A.4:** Explain why knowledge and skills acquired in elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem solving process.

Standards - 8.1 Computer Science and Design Thinking

- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES - activities/topics [optional]
Self-Awareness and Self-Management:

- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely give students the opportunity to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially?," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the *How Does This Math Make Me Feel?* **Sheet** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discuss It* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies.

Relationship Skills:
- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.

Interdisciplinary Connections
- Read just right books in the content areas
- Use mentor texts to deliver Social Studies content
- Compare content area ideas and issues to what our characters deal with in out read alouds and mentor texts
- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills
- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detail ideas and lessons

21st Century Skills Integration
- Use venn diagrams and T chart to compare and contrast events
  - Use highlighters, notecards, post-its and other tools to keep track of story events details and ideas.

Unit 2: Multiplication and Division Concepts, Relationships, and Patterns

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Lesson 4: Understand the Meaning of Multiplication **Session 1 EXPLORE:** The Meaning of Multiplication	**Lesson 4:** Understand the Meaning of Multiplication **Session 2 DEVELOP:** Understanding of Multiplication Models	**Lesson 4:** Understand the Meaning of Multiplication **Session 3 REFINE:** Ideas About the Meaning of Multiplication	**Lesson 5:** Multiply with 0, 1, 2, 5, and 10 **Session 1 EXPLORE:** Multiplying with 0, 1, 2, 5, and 10	**Lesson 5:** Multiply with 0, 1, 2, 5, and 10 **Session 2 DEVELOP:** Multiplying with 2, 5, and 10
Materials:	**Materials:**	**Materials:**	**Materials:**	**Materials:**
• *Student Worktext* • *Teacher Guide Volume 1*	• *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools*	• *Student Worktext* • *Teacher Guide Volume 1* • *LESSON 4 QUIZ*	• *Student Worktext* • *Teacher Guide Volume 1*	• *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools*
Activities: Before beginning the lesson, have students complete the Unit 2 Self-Check on page 89 in their *Student Worktext*. Then, as outlined on pages 93-96 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 97-100 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It: Equal Groups and Arrays *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Square Tiles *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 101-102b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Activities:** As outlined on pages 103-108 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 109-114 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model It *(5 min)* 5) Connect It *(15 min)* 6) Close: Exit Ticket *(5 min)*
Additional Practice: *Student Worktext* pages 95-96	**Additional Practice:** *Student Worktext* pages 99-100 **Fluency Practice:** Understanding of Multiplication Models		**Additional Practice:** *Student Worktext* pages 107-108	**Additional Practice:** *Student Worktext* pages 113-114 **Fluency Practice:** Multiplying with 2, 5, and 10

DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
Lesson 5: Multiply with 0, 1, 2, 5, and 10 **Session 3 DEVELOP:** Multiplying with 0 and 1	**Lesson 5:** Multiply with 0, 1, 2, 5, and 10 **Session 4 REFINE:** Multiplying with 0, 1, 2, 5, and 10	**Lesson 6:** Multiplying with 3, 4, and 6 **Session 1 EXPLORE:** Multiplying with 3, 4, and 6	**Lesson 6:** Multiplying with 3, 4, and 6 **Session 2 DEVELOP:** Multiplying with 3	**Lesson 6:** Multiplying with 3, 4, and 6 **Session 3 DEVELOP:** Multiplying with 4
Materials: • *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools*	**Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *LESSON 5 QUIZ*	**Materials:** • *Student Worktext* • *Teacher Guide Volume 1*	**Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools*	**Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools*

Activities: As outlined on pages 115-120 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 119-120 **Fluency Practice:** Multiplying with 0 and 1	**Activities:** As outlined on pages 121-124b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Activities:** As outlined on pages 125-130 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Connect It *(15 min)* 4) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 129-130	**Activities:** As outlined on pages 131-136 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Picture It & Solve It *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 135-136 **Fluency Practice:** Multiplying with 3	**Activities:** As outlined on pages 137-142 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Model Its *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 141-142 **Fluency Practice:** Multiplying with 4
DAY 11 **Lesson 6:** Multiplying with 3, 4, and 6 **Session 4 DEVELOP:** Multiplying with 6 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 143-148 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Model It & Picture It *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 147-148 **Fluency Practice:** Multiplying with 6	**DAY 12** **Lesson 6:** Multiplying with 3, 4, and 6 **Session 5 REFINE:** Multiplying with 3, 4 and 6 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 6 QUIZ* **Activities:** As outlined on pages 149-152b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Day 13** **Lesson 7:** Multiplying with 7, 8, and 9 **Session 1 EXPLORE:** Multiplying with 7, 8, and 9 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 153-158 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 157-158	**Day 14** **Lesson 7:** Multiplying with 7, 8, and 9 **Session 2 DEVELOP:** Multiplying with 7 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 159-164 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 163-164 **Fluency Practice:** Multiplying with 7	**Day 15** **Lesson 7:** Multiplying with 7, 8, and 9 **Session 3 DEVELOP:** Multiplying with 8 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 164-170 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 169-170 **Fluency Practice:** Multiplying with 8
Day 16 **Lesson 7:** Multiplying with 7, 8, and 9 **Session 4 DEVELOP:** Multiplying with 9 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 171-176 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 175-176 **Fluency Practice:** Multiplying with 9	**DAY 17** **Lesson 7:** Multiplying with 7, 8, and 9 **Session 5 REFINE:** Multiplying with 7, 8, and 9 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 7 QUIZ* **Activities:** As outlined on pages 177-180b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Day 18** **Lesson 8:** Use Order and Grouping to Multiply **Session 1 EXPLORE:** Using Order and Grouping to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 181-186 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 185-186	**Day 19** **Lesson 8:** Use Order and Grouping to Multiply **Session 2 DEVELOP:** Using Order to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 187-192 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 191-192 **Fluency Practice:** Using Order to Multiply	**Day 20** **Lesson 8:** Use Order and Grouping to Multiply **Session 3 DEVELOP:** Using Grouping to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 193-198 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 197-198 **Fluency Practice:** Using Grouping to Multiply

DAY 21	**DAY 22**	**DAY 23**	**DAY 24**	**DAY 25**
Lesson 8: Use Order and Grouping to Multiply **Session 4 DEVELOP:** Using Order and Grouping to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 199-204 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 203-204 **Fluency Practice:** Using Order and Grouping to Multiply *(Digital Math Tools)*	**Lesson 8:** Use Order and Grouping to Multiply **Session 5 REFINE:** Using Order and Grouping to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 8 QUIZ* **Activities:** As outlined on pages 205-208b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Lesson 9:** Use Place Value to Multiply **Session 1 EXPLORE:** Using Place Value to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 209-214 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 213-214	**Lesson 9:** Use Place Value to Multiply **Session 2 DEVELOP:** Multiplying with Tens **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 215-220 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 219-220 **Fluency Practice:** Understanding of Multiplication Models	**Lesson 9:** Use Place Value to Multiply **Session 3 REFINE:** Using Place Value to Multiply **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 9 QUIZ* **Activities:** As outlined on pages 221-224b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ
DAY 26 **Unit 2: Mid-Unit Assessment & 0-9 Facts Fluency Practice** **Materials:** ● *Unit 2 Mid-Unit Assessment:* *Form A*	*Form B* ● 0-9 Facts Partner Games ● *Teacher Guide Volume 1* **Activities:** Students will take their Unit 2 Mid-Unit Assessment. *See the Scoring Guide on pages 224e and 224f in Teacher Guide Volume 1.* When students are done with the Unit 2 Mid-Unit Assessment, have them do fluency practice for 0-9 facts using partner games.	**DAY 27** **Lesson 10:** Understand the Meaning of Division **Session 1 EXPLORE:** The Meaning of DIvision **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 227-230 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 229-230	**DAY 28** **Lesson 10:** Understand the Meaning of Division **Session 2 DEVELOP:** Understanding of Division Models **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 231-234 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 233-234 **Fluency Practice:** Understanding of Division Models	**DAY 29** **Lesson 10:** Understand the Meaning of Division **Session 3 REFINE:** Ideas About the Meaning of Division **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 10 QUIZ* **Activities:** As outlined on pages 235-236b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Apply *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 30** **Lesson 11:** Understand How Multiplication and Division Are Connected **Session 1 EXPLORE:** How Multiplication and Division Are Connected **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 239-242 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 241-242
DAY 31 **Lesson 11:** Understand How Multiplication and Division Are Connected **Session 2 DEVELOP:** Understanding of How Multiplication and Division Are Connected **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 243-246 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It: Multiplication and Division Situations *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Multiplication and Division Facts *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 245-246	**DAY 32** **Lesson 11:** Understand How Multiplication and Division Are Connected **Session 3 REFINE:** Ideas About the Meaning of Division **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 11 QUIZ* **Activities:** As outlined on pages 247-248b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 33** **Lesson 12:** Multiplication and Division Facts **Session 1 EXPLORE:** Multiplication and Division Facts **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 251-254 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 253-254	**DAY 34** **Lesson 12:** Multiplication and Division Facts **Session 2 DEVELOP:** Working with Division Facts **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 255-260 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 259-260 **Fluency Practice:** Working with Division Facts *(Digital Math Tools)*	**Day 35** **Lesson 12:** Multiplication and Division Facts **Session 3 DEVELOP:** Using a Multiplication Table **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 261-266 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 256-266 **Fluency Practice:** Using a Multiplication Table *(Digital Math Tools)*

Fluency Practice: Understanding of How Multiplication and Division Are Connected *(Digital Math Tools)*				

DAY 36 **Lesson 12:** Multiplication and Division Facts **Session 4 REFINE:** Working with Multiplication and Division Facts **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● [LESSON 12 QUIZ] **Activities:** As outlined on pages 267-270b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 37** **Lesson 13:** Understand Patterns **Session 1 EXPLORE:** Patterns **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 273-276 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 275-276	**DAY 38** **Lesson 13:** Understand Patterns **Session 2 DEVELOP:** Understanding of Patterns **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 277-280 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It: Addition Patterns *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Multiplication Patterns *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 279-280 **Fluency Practice:** Understanding of Patterns *(Digital Math Tools)*	**DAY 39** **Lesson 13:** Understand Patterns **Session 3 REFINE:** Ideas About Patterns **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● [LESSON 13 QUIZ] **Activities:** As outlined on pages 281-282b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 40** **Math in Action:** Solve Multiplication and Division Problems **Session 1** **Materials:** ● *Teacher Guide Volume 1* ● [Solution Sheet 1] ● Perimeter and Area Tools, Number Line *(Digital Math Tools)* ● *Student Worktext* **Activities:** As outlined on page 284-289 in *Teacher Guide Volume 1*: 1) Example Problem and Solution *(15 min)* 2) Plan It *(5 min)* 3) Solve It *(10 min)* 4) Reflect *(5 min)* 5) Plan and Solve It *(10 min)* 6) Reflect *(5 min)*
DAY 41 **Math in Action:** Solve Multiplication and Division Problems **Session 2** **Materials:** ● *Teacher Guide Volume 1* ● [Solution Sheet 1] ● Perimeter and Area Tools, Number Line *(Digital Math Tools)* ● *Student Worktext* **Activities:** As outlined on pages 290-291 in *Teacher Guide Volume 1*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*	**DAY 42** **Unit Game:** *Tic-Tac-Times-Ten* **(OPTIONAL)** **Materials (for each pair):** ● [Tic-Tac-Times-Ten Game] (Recording Sheet & Game Board) ● 2 number cubes (2-7 and 3-8) ● 30 two-color counters ● *Teacher Guide Volume 1* **Activities:** As outlined on page 292 in *Teacher Guide Volume 1*: Have students play *Tic-Tac-Times-Ten* to reinforce rounding a two-digit number to the nearest 10 and multiplying a one-digit number by a multiple of 10.	**DAY 43** **Literacy Connection (Science):** "Termite Mounds" **(OPTIONAL)** **Materials:** ● ["Termite Mounds"] ● [Literacy Connection Problems] | [Answer Key] ● *Teacher Guide Volume 1* **Activities:** As outlined on page 293 in *Teacher Guide Volume 1*: Students read an informational text about how termites build their mounds and support other animals and reptiles and use their understanding of multiplication and division using multiple representations to complete the literacy connection problems.	**DAY 44** **Unit 2:** Unit Review **Materials:** ● *Teacher Guide Volume 1* ● *Student Worktext* **Activities:** 1) Have students complete the Unit 2 Self-Reflection on page 283. 2) Students will complete pages 292-294 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. ***Use pages 292-294a in Teacher Guide Volume 1 to guide the discussion.***	**DAY 45** **Unit 2:** Unit Assessment **Materials:** ● *Unit 2 Assessment:* [Form A] | [Form B] ● *Teacher Guide Volume 1* **Activities:** Students will take their Unit 2 Assessment. ***See the Scoring Guide on page 294e in Teacher Guide Volume 1.***

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ELL Students; Students At Risk; Gifted Students) **by:**

Presentation Accommodations
- Use alternate texts at lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts

Response Accommodations
- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for classmate

Differentiate Instruction, depending on individual student 504 plan/needs:
Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations
- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions

Subject Area: Mathematics **Grade Level:** 3 **Bedminster Township School**	
Unit 3: **Multiplication: Finding Area, Solving Word Problems, and Using Scaled Graphs**	
Dates: February-March	**Time Frame:** 33 Days

OVERVIEW

In this unit, students are introduced to the area and other applications of multiplication. Students gain a conceptual understanding of area as the amount of space inside a closed plane shape, or the amount of space the shape covers. Students start by recognizing that square units can be used to measure the amount of space in a shape by counting the number of square units that cover the shape. They then learn to relate area to multiplication by considering the square units in a rectangle as the rows and columns in an array, multiplying rows and columns, and later length and width, to find the area. Students solve real-world problems about the area by writing multiplication equations and relating factors to side lengths of rectangles. They label the area in square units.

Students also learn that area is additive. They use area models to find areas of combined rectangles and decompose shapes into rectangles to find areas using the distributive property of multiplication.

Students apply all of these understandings to solving one-step multiplication and division word problems that involve equal groups, arrays, and areas. They use drawings, words, and equations to represent situations in word problems, writing equations using a letter for the unknown number and recognizing that the same situation can be represented with both a multiplication and a division equation. Students model and solve two-step word problems involving all four operations: addition, subtraction, multiplication, and division.

Students are introduced to the concept of *scale* in graphs, learning that a symbol on a graph can represent more than one item in the data and that the *key* tells the number of items each symbol stands for. Students multiply the number in the key by the number of symbols in a category to find how many items are represented. Students also recognize that the scale on a bar graph can show intervals other than one.

ENDURING UNDERSTANDINGS
- Area is the measure of the space inside a shape.
- You can use what you know about multiplication to find the area of a rectangle. You can add areas to find the area of complex shapes.
- You can use what you know about arrays to help you model and solve multiplication and division problems.
- The scale on a graph can stand for values greater than 1. Knowing how to multiply will help you use the scale to solve problems with data more efficiently.

SKILL AND KNOWLEDGE OBJECTIVES

Content Objectives:
- Understand what a square unit is and the fact that it can be different sizes. (Lesson 14)
- Understand that a square unit is used to measure area. (Lesson 14)
- Understand how to measure area by covering a shape with square units and counting the squares. (Lesson 14)
- Find the area of shapes using different-sized square units, including square centimeters, square meters, square inches, and square feet. (Lesson 14)
- Understand that multiplying the side lengths of a rectangle provides the same results as tiling it and counting the units. (Lesson 15)
- Use the area formula for rectangles to solve mathematical problems. (Lesson 15)
- Use the area formula for rectangles to solve real-world problems. (Lesson 15)
- Use area models to show how the distributive property can be used to find areas of combined rectangles. (Lesson 16)
- Decompose shapes formed by rectangles, find the area of each rectangle, and add the areas to find the total area of the shape. (Lesson 16)
- Understand that area is additive. (Lesson 16)
- Solve multiplication and division word problems involving equal groups. (Lesson 17)
- Solve multiplication and division word problems involving arrays. (Lesson 17)
- Solve multiplication and division word problems involving area. (Lesson 17)
- Determine operations needed to solve two-step word problems. (Lesson 18)
- Model two-step problems with four operations using a variety of representations, including equations with a variable. (Lesson 18)
- Solve two-step problems with four operations. (Lesson 18)
- Assess the reasonableness of answers. (Lesson 18)
- Interpret data displayed in a bar graph to solve one- and two-step problems involving addition and subtraction. (Lesson 19)
- Interpret data displayed in a picture graph to solve one- and two-step problems involving addition, subtraction, and multiplication. (Lesson 19)
- Recognize that data displayed in picture graphs and bar graphs can be represented by a scale other than 1. (Lesson 19)
- Use multiplication to determine the number of items in data categories on graphs with a scale other than 1. (Lesson 19)
- Draw scaled picture graphs and scaled bar graphs. (Lesson 19)

Language Objectives:
- Record the number of square units in a given rectangle or non-rectangular shape. (Lesson 14)
- Draw a rectangle with a given area. (Lesson 14)
- Orally define and use the key mathematical terms *area* and *square unit* to describe determining the area to a partner. (Lesson 14)
- Write an equation for the area of a given rectangle. (Lesson 15)
- Label area measurements with square units. (Lesson 15)
- Draw a picture to represent and solve a word problem about an area. (Lesson 15)
- Draw lines in rectangles to break them into smaller rectangles. (Lesson 16)
- Draw lines in rectilinear non-rectangular shapes to break them into rectangles. (Lesson 16)
- Tell how to find the area of a shape made from rectangles. (Lesson 16)
- Draw an array or other diagram to represent multiplication or division word problems, and explain how the diagram relates to the problem. (Lesson 17)
- Write equations, using a letter for the unknown number, to represent multiplication and division word problems, and explain how the equation relates to the problem. (Lesson 17)
- Compare the different approaches used by others and identify connections among the approaches. (Lesson 17)
- Summarize two-step word problems and choose which of the four operations are needed to solve the problem.

(Lesson 18)
- Draw a diagram to represent two-step word problems and explain how the diagram relates to the problem. (Lesson 18)
- Write an equation with a variable as the unknown to represent a two-step word problem and explain how the equation relates to the problem. (Lesson 18)
- Compare an answer for a word problem with an estimate and judge the reasonableness of the answer. (Lesson 18)
- Restate information given by the key in a picture graph. (Lesson 19)
- Analyze scaled graphs using multiplication to find values. (Lesson 19)
- Read the data listed in the table. (Lesson 19)
- Use the key vocabulary terms *bar graph, key, picture graph, scale,* and *data* to communicate precisely. (Lesson 19)

21st Century LIfe and Careers Objectives:
- Students analyze data to determine the best financial decision *(Lesson 18)*
- Explore the importance of solving word problems in daily life. *(Lesson 18)*
- Break apart word problems to find relevant data. *(Lesson 18)*

ASSESSMENTS

Pre-Assessment:
- Prerequisites Report (in *Teacher Digital Experience*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext*)
- Lesson Quizzes (attached in the unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)
- Apply It (in *Student Worktext)*
- Reflect Questions (in *Student Worktext)*
- Self-Reflection (in *Student Worktext)*
- Math Journal Questions (in *Student Worktext)*
- Unit Review (in *Student Worktext)*

Summative Assessment:
- Performance Task (in *Student Worktext)*
- Mid-Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)
- Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)

RESOURCES

i-Ready Classroom Mathematics **Grade 3:**
→ **PRINT RESOURCES:**
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations
    - Connect to Culture
    - Discussion Prompts and Instructional Support
  - *Student Worktext* (Use the blue pages for in-class instruction and practice)
- **Independent Practice for School or Home**
  - *Teacher's Guide*
    - Additional Practice
    - Cumulative Practice
  - *Student Worktext* (Use the green pages for independent practice)
    - Additional Practice
    - Cumulative Practice
  - *Teacher Toolbox*

- ■ Fluency and Skills Practice
- ■ Unit Game
- ■ Cumulative Practice
- ● **Assessments and Reports**
  - ○ *Teacher's Guide*
    - ■ Starts
    - ■ Support Whole Group/Partner Discussion
    - ■ Ask/Listen Fors
    - ■ Common Misconceptions
    - ■ Error Alerts
    - ■ Close: Exit Ticket
  - ○ *Student Worktext*
    - ■ Self Checks
    - ■ Apply It
    - ■ Reflect Questions
    - ■ Self Reflection
    - ■ Math Journal Questions
    - ■ Unit Review
  - ○ *Teacher Toolbox*
    - ■ Editable Lesson Quizzes
    - ■ Editable Mid-Unit and Unit Assessments
- ● **Differentiation**
  - ○ *Before the Unit/Lesson: Prerequisites Report*
    - ■ Prerequisites Report: Resources
  - ○ *During the Lesson: Teacher's Guide*
    - ■ Hands-On Activities or Visual Models
    - ■ Deepen Understanding
    - ■ ELL Differentiated Instruction
    - ■ Refine Sessions
  - ○ *After the Lesson: Teacher Toolbox*
    - ■ Reteach: Tools for Instruction
    - ■ Reinforce: Math Center Activities
    - ■ Extend: Enrichment Activities
- → **DIGITAL RESOURCES**
  - ● **In-Class Instruction and Practice:**
    - ○ Interactive Tutorials
    - ○ Digital Math Tools
    - ○ PowerPoint Slides
  - ● **Independent Practice for School or Home**
    - ○ Digital Math Tools
    - ○ Learning Games
    - ○ Interactive Practice
  - ● **Assessments and Reports**
    - ○ Diagnostic
    - ○ Lesson, Mid-Unit, and Unit Comprehension Checks
    - ○ Prerequisites Report
    - ○ Comprehension Check Reports
  - ● **Differentiation**
    - ○ *Interactive Tutorials*
    - ○ *Digital Math Tools*
    - ○ *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:
Measurement and Data
- ● **3.MD.B.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.MD.C.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.
- ● **3.MD.C.5a** A square with a side length of 1 unit, called "a unit square," is said to have "one square unit" of area,

and can be used to measure area.

- **3.MD.C.5b** A plane figure that can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.
- **3.MD.C.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).
- **3.MD.C.7** Relate area to the operations of multiplication and addition.
- **3.MD.C.7a** 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.MD.C.7b** Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- **3.MD.C.7c** 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.MD.C.7d** 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.

Number and Operations in Base Ten

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

Operations and Algebraic Thinking

- **3.OA.A.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.B.5** Apply properties of operations as strategies to multiply and divide. *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.D.8** Solve two-step word problems 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.

Standards for Mathematical Practice (SMP):

1. Make sense of problems and persevere in solving them. (Lessons 14-19)
2. Reason abstractly and quantitatively. (Lessons 14-19)
3. Construct viable arguments and critique the reasoning of others. (Lessons 14-19)
4. Model with mathematics. (Lessons 14-19)
5. Use appropriate tools strategically. (Lessons 14-19)
6. Attend to precision. (Lessons 14-19)
7. Look for and make use of structure. (Lessons 15-17, 19)
8. Look for and express regularity in repeated reasoning. (Lesson 15)

NJ Student Learning Standards (NJSLS) for English Language Arts:

- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, and speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of the information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy Connection)
- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. (Literacy Connection)
- **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). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Social Studies:
- **6.1.4.D.13** Describe how culture is expressed through and influenced by the behavior of people. (Literacy Connection)
- **6.1.5.HistoryUP.7** Describe why it is important to understand the perspectives of other cultures in an interconnected world. (Literacy Connection)

Standard 9: 21st Century Life and Careers:
Career Ready Practices:
- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.4.E.1** - Determine factors that influence consumer purchasing decisions
- **9.2.4.A.4 E** - Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem-solving process.

Standards - 8.1 Computer Science and Design Thinking
- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES   activities/topics [optional]
Self-Awareness and Self-Management:
- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely allow students to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially?," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the *How Does This Math Make Me Feel?* **Sheet** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self-Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discuss It* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, and identifying feelings and thoughts of others who adopt these strategies.

Relationship Skills:
- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved to be more successful.

Interdisciplinary Connections
- Read just-right books in the content areas
- Use mentor texts to deliver Social Studies content
- Compare content area ideas and issues to what our characters deal with in our read-aloud and mentor texts
- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills

- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detail ideas and lessons

21st Century Skills Integration
- Use Venn diagrams and T chart to compare and contrast events
- Use highlighters, notecards, post-its, and other tools to keep track of story events details, and ideas.

Unit 3: Multiplication: Finding Area, Solving Word Problems, and Using Scaled Graphs

DAY 1 **Lesson 14:** Understand Area **Session 1 EXPLORE:** Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** Before beginning the lesson, have students complete the Unit 3 Self-Check on page 299 in their *Student Worktext*. Then, as outlined on pages 303-306 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 305-306	**DAY 2** **Lesson 14:** Understand Area **Session 2 DEVELOP:** Understanding of Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 307-310 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Model It: Rectangular Shapes *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Non-rectangular Shapes *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 307-310 **Fluency Practice:** Understanding of Area	**DAY 3** **Lesson 14:** Understand Area **Session 3 REFINE:** Ideas About Finding Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 14 QUIZ* **Activities:** As outlined on pages 311-312b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 4** **Lesson 15:** Multiply to Find Area **Session 1 EXPLORE:** Multiplying to Find Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 315-318 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 317-318	**DAY 5** **Lesson 15:** Multiply to Find Area **Session 2 DEVELOP:** Multiplying to Find Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 319-324 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 323-324 **Fluency Practice:** Multiplying to Find Area
DAY 6 **Lesson 15:** Multiply to Find Area **Session 3 DEVELOP:** Solving Word Problems About Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 325-330 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 329-330 **Fluency Practice:** Solving Word Problems About Area	**DAY 7** **Lesson 15:** Multiply to Find Area **Session 4 REFINE:** Multiplying to Find Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 15 QUIZ* **Activities:** As outlined on pages 331-334b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 8** **Lesson 16:** Add Areas **Session 1 EXPLORE:** Adding Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 337-340 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 339-340	**DAY 9** **Lesson 16:** Add Areas **Session 2 DEVELOP:** Finding Areas of Combined Rectangles **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 341-346 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(15 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 345-346 **Fluency Practice:** Finding Area of Combined Rectangles	**DAY 10** **Lesson 16:** Add Areas **Session 3 DEVELOP:** Findings Areas of Non-Rectangular Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *Digital Math Tools* **Activities:** As outlined on pages 347-352 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Model Its *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 351-352 **Fluency Practice:** Finding Area of Non-Rectangular Shapes
DAY 11 **Lesson 16:** Add Areas **Session 4 REFINE:** Adding Areas **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* ● *LESSON 16 QUIZ* **Activities:** As outlined on pages 353-356b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 12** **Unit 3: Mid-Unit Assessment & Finding Area Practice** **Materials:** ● *Unit 3 Mid-Unit Assessment:* *Form A*	*Form B* ● Finding Area Partner Games **Activities:** Students will take their Unit 3 Mid-Unit Assessment. *See the Scoring Guide on pages 356e and 356f in Teacher Guide Volume 1.* When students are done with the Unit 3 Mid-Unit Assessment, have them continue practicing finding area using partner games.	**Day 13** **Lesson 17:** Solve One-Step Word Problems Using Multiplication and Division **Session 1 EXPLORE:** Solving One-Step Word Problems Using Multiplication and Division **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 359-362 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Connect It *(15 min)* 4) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 361-362	**Day 14** **Lesson 17:** Solve One-Step Word Problems Using Multiplication and Division **Session 2 DEVELOP:** Solving Problems About Equal Groups **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 363-368 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Picture It & Model It *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 367-368 **Fluency Practice:**	**Day 15** **Lesson 17:** Solve One-Step Word Problems Using Multiplication and Division **Session 3 DEVELOP:** Solving Problems About Arrays **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 1* **Activities:** As outlined on pages 369-374 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Picture It & Model It *(5 min)* 4) Connect It *(10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 373-374 **Fluency Practice:**

			Solving Problems About Equal Groups	Solving Problems About Arrays
Day 16 **Lesson 17:** Solve One-Step Word Problems Using Multiplication and Division **Session 4 DEVELOP:** Solving Problems About Area **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *Digital Math Tools* **Activities:** As outlined on pages 375-380 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It & Discuss It *(20 min)* 3) Picture It & Model It *(5 min)* 4) *Connect It (10 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 379-380 **Fluency Practice:** Solving Problems About Area	**DAY 17** **Lesson 17:** Solve One-Step Word Problems Using Multiplication and Division **Session 5 REFINE:** Solving One-Step Word Problems Using Multiplication and Division **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *LESSON 17 QUIZ* **Activities:** As outlined on pages 381-384b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Day 18** **Lesson 18:** Solve Two-Step Word Problems Using the Four Operations **Session 1 EXPLORE:** Solving Two-Step Word Problems Using the Four Operations **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 359-362 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 3) Connect It *(15 min)* 4) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 389-390	**Day 19** **Lesson 18:** Solve Two-Step Word Problems Using the Four Operations **Session 2 DEVELOP:** Solving Two-Step Word Problems Using Two Equations **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 391-396 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 395-396 **Fluency Practice:** Solving Two-Step Word Problems Using Two Equations	**Day 20** **Lesson 18:** Solve Two-Step Word Problems Using the Four Operations **Session 3 DEVELOP:** Solving Two-Step Word Problems Using One Equation **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 397-402 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 401-402 **Fluency Practice:** Solving Two-Step Word Problems Using One Equation
Day 21 **Lesson 18:** Solve Two-Step Word Problems Using the Four Operations **Session 4 DEVELOP:** Estimating Solutions to Word Problems **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 403-408 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 407-408 **Fluency Practice:** Estimating Solutions to Word Problems	**DAY 22** **Lesson 18:** Solve Two-Step Word Problems Using the Four Operations **Session 5 REFINE:** Solving Two-Step Word Problems Using the Four Operations **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *LESSON 18 QUIZ* **Activities:** As outlined on pages 409-412b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Day 23** **Lesson 19:** Scaled Graphs **Session 1 EXPLORE:** Scaled Graphs **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 415-418 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 3) Connect It *(15 min)* 4) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 417-418	**Day 24** **Lesson 19:** Scaled Graphs **Session 2 DEVELOP:** Reading and Interpreting Picture Graphs **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 419-424 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 423-424 **Fluency Practice:** Reading and Interpreting Picture Graphs	**Day 25** **Lesson 19:** Scaled Graphs **Session 3 DEVELOP:** Reading and Interpreting Bar Graphs **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 425-430 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Explain It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 429-430 **Fluency Practice:** Reading and Interpreting Bar Graphs
Day 26 **Lesson 19:** Scaled Graphs **Session 4 DEVELOP:** Drawing a Scaled Graph **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* **Activities:** As outlined on pages 431-436 in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 435-436 **Fluency Practice:** Drawing a Scaled Graph	**DAY 27** **Lesson 19:** Scaled Graphs **Session 5 REFINE:** Scaled Graphs **Materials:** • *Student Worktext* • *Teacher Guide Volume 1* • *LESSON 19 QUIZ* **Activities:** As outlined on pages 437-440b in *Teacher Guide Volume 1*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 28** **Math in Action:** Use the Four Operations **Session 1** **Materials:** • 10 counters per student • Solution Sheet 1 • Multiplication Table • Base-Ten Blocks, Number Line (Digital Math Tools) • *Student Worktext* **Activities:** As outlined on page 442-447 in *Teacher Guide Volume 1*: 1) Example Problem and Solution *(15 min)* 2) Plan It *(5 min)* 3) Solve It *(10 min)* 4) Reflect *(5 min)* 5) Plan and Solve It *(10 min)* 6) Reflect *(5 min)*	**Day 29** **Math in Action:** Use the Four Operations **Session 2** **Materials:** • Teacher Guide Volume 1 • Solution Sheet 1 • Multiplication Table • Base-Ten Blocks, Number Line (Digital Math Tools) • *Student Worktext* **Activities:** As outlined on pages 448-449 in *Teacher Guide Volume 1*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*	**DAY 30** **Unit Game:** Two-Step Problems **(OPTIONAL)** **Materials (for each pair):** • Two-Step Problems Game (2 copies of Recording Sheet) • 3 number cubers (1-6) • *Teacher Guide Volume 1* **Activities:** As outlined on page 450 in *Teacher Guide Volume 1*: Have students play *Two-Step Problems* to reinforce writing and solving word problems using multiplication.

DAY 31	DAY 32	DAY 33		
Literacy Connection (Social Studies): "Living in the Clouds" **(OPTIONAL)** **Materials:** ● "Living in the Clouds" ● Literacy Connection Problems | Answer Key **Activities:** As outlined on *Teacher Guide Volume 1* page 145: Students read an informational text about the Inca civilization, their culture, and the ancient cities of Peru and use their understanding of one- and two-step word problems to complete the activity.	**Unit 3: Unit Review** **Materials:** ● *Teacher Guide Volume 1* ● *Student Worktext* **Activities:** 1) Have students complete the Unit 3 Self-Reflection on page 441. 2) Students will complete pages 450-452 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. ***Use pages 450-452a in Teacher Guide Volume 1 to guide the discussion.***	**Unit 3: Unit Assessment** **Materials:** ● *Unit 3 Assessment: Form A | Form B* ● *Teacher Guide Volume 1* **Activities:** Students will take their Unit 3 Assessment. ***See the Scoring Guide on page 452e in Teacher Guide Volume 1.***		

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ELL Students; Students At Risk; Gifted Students) **by:**

Presentation Accommodations
- Use alternate texts at a lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use a magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of the teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts

Response Accommodations
- Use sign language, a communication device, Braille, other technology, or a native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in a small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for a classmate

Differentiate Instruction, depending on individual student 504 plan/needs:
Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations
- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Get graded or assessed using a different standard

Subject Area: Mathematics Grade Level: 3 Bedminster Township School	
Unit 4: Fractions: Equivalence and Comparison, Measurement, and Data	
Dates: March-April	**Time Frame:** 31 Days

OVERVIEW

In this unit, students are introduced to fractions. Students develop a more formal understanding as they focus on the meaning of fractions and naming fractions by the number of equal parts in the whole. Students learn about the structure of fractions, identifying the denominator as the number of equal parts in the whole and the numerator as the number of parts being considered. They identify unit fractions, using models with one part shaded out of several equal parts, and apply their understanding of unit fractions to understand greater fractions that are built from unit fractions. Students extend their understanding of fractions as equal parts of a whole to include the concept of fractions as numbers on a number line. They recognize that marking equal intervals on a number line can show whole numbers and that marking equal intervals between whole numbers can represent fractions. Students recognize that a location on a number line can have more than one name.

Students use fraction models and number lines to develop a conceptual understanding of equivalent fractions, learning that two fractions are equivalent when they are the same size and name the same amount of the whole. They then explore finding equivalent fractions by dividing two same-sized rectangles into different numbers of equal parts and by using a number line. Students extend their understanding to include identifying and generating equivalent fractions for whole numbers that are equal to or greater than 1.

Students apply their understanding of fractions to compare two fractions that have the same numerator or the same denominator, using fraction models and number lines to reason about the size of the unit fractions that make up each fraction, first using words (*less than, greater than,* and *equal to),* then using symbols (<, >, and =).

Students begin to analyze data that they display in line plots. They extend their knowledge of measuring to the nearest inch to measure objects to the nearest ½ inch and ¼ inch. They organize the collection of data in a table and draw a number of lines and line plots for measurement data that include fractions. Students answer questions about the line plots to learn about the data.

ENDURING UNDERSTANDINGS

- Fractions are numbers that describe wholes divided into equal parts. Knowing how many equal parts you have will help you name fractions.
- Fractions name points on a number line. Knowing about number lines can help you compare fractions with whole numbers and other fractions.
- You can use what you know about fraction models and number lines to find different names for the same fraction, or equivalent fractions.
- You can use what you know about fractions to compare fractions that have the same numerator or the same denominator.

SKILL AND KNOWLEDGE OBJECTIVES

Content Objectives:
- Understand that a fraction is a whole divided into some number of equal parts. (Lesson 20)
- Understand and recognize the parts of a fraction. (Lesson 20)
- Understand that unit fractions are the building blocks of fractions in the same way that 1 is the building block of whole numbers. (Lesson 20)
- Understand that, in addition to whole numbers, number lines can show equal parts of a whole or fractions. (Lesson 21)
- Understand fractions as numbers on a number line. (Lesson 21)
- Understand how to use number lines to count and identify fractional parts. (Lesson 21)
- Represent fractions on a number line that are less than, equal to, or greater than one. (Lesson 21)

- Understand that two fractions are equivalent if they are the same size, cover the same area, or are on the same point on a number line. (Lesson 22)
- Recognize and generate equivalent fractions using fraction models and number lines. (Lesson 22)
- Explain why two fractions are equivalent by using a fraction model or number line. (Lesson 22)
- Use fraction models and number lines to identify and create equivalent fractions, including those that are greater than or equal to one whole. (Lesson 23)
- Identify, model, and write equivalent fractions for whole numbers. (Lesson 23)
- Reason about unit fractions to compare two fractions using the sizes of the unit fractions shown by the denominators and the number of parts shown by the numerators. (Lesson 24)
- Determine if fractions to be compared have the same numerators or the same denominators. (Lesson 24)
- Use models or number lines to explain why one fraction is greater than or less than another. (Lesson 24)
- Use symbols to record the results of comparing fractions with the same numerator or the same denominator. (Lesson 25)
- Read comparison statements fluently and accurately. (Lesson 25)
- Use Models and number lines to explain and justify fraction comparisons. (Lesson 25)
- Use a ruler to measure objects to the nearest ½ inch. (Lesson 26)
- Use a ruler to measure objects to the nearest ¼ inch. (Lesson 26)
- Display measurement data in a line plot. (Lesson 26)
- Answer questions about data in a line plot. (Lesson 26)

Language Objectives:
- Write the fraction shown by an area model. (Lesson 20)
- Shade an area model to represent a given unit fraction. (Lesson 20)
- Shade area models to represent a variety of fractions. (Lesson 20)
- Orally define and use the key mathematical terms *denominator, fraction, numerator,* and *unit fraction* when describing reasoning to a partner. (Lesson 20)
- Label points on a number line with the appropriate fraction. (Lesson 21)
- Describe how the denominator of a fraction is related to the number of equal sections between the whole numbers on a number line. (Lesson 21)
- Draw an area model or a number line to show equivalent fractions. (Lesson 22)
- Orally define and use the key mathematical term *equivalent fraction* when reasoning about equivalent fractions with a partner. (Lesson 22)
- Write equivalent fractions for numbers greater than 1. (Lesson 23)
- Write whole numbers as fractions and justify using area models or number lines. (Lesson 23)
- Write a fraction that represents a whole number. (Lesson 23)
- Tell why a fraction with a denominator of 1 is equivalent to a whole number. (Lesson 23)
- Draw area models and number line models to compare fractions. (Lesson 24)
- Communicate ideas about comparing fractions to others, including the use of the terms *numerator, denominator, greater than,* and *less than.* (Lesson 24)
- Listen to and critique others' ideas about comparing fractions. (Lesson 24)
- Draw area models and number lines to justify fraction comparisons. (Lesson 25)
- Write comparison statements using the symbols <, >, and = to compare fractions. (Lesson 25)
- Orally describe how to compare fractions to one another. (Lesson 25)
- Record the results of measurement in a table. (Lesson 26)
- Read measurement data listed in a table. (Lesson 26)
- Write labels on a line plot. (Lesson 26)

ASSESSMENTS

Pre-Assessment:
- Prerequisites Report (in *Teacher Digital Experience*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext)*
- Lesson Quizzes (attached in the unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)
- Apply It (in *Student Worktext*)
- Reflect Questions (in *Student Worktext*)

- Self-Reflection (in *Student Worktext)*
- Math Journal Questions (in *Student Worktext)*
- Unit Review (in *Student Worktext)*

<u>Summative Assessment:</u>
- Performance Task (in *Student Worktext)*
- Mid-Unit Assessment - <u>Form A</u> & <u>Form B</u> (also in *Teacher Toolbox*)
- Unit Assessment - <u>Form A</u> & <u>Form B</u> (also in *Teacher Toolbox*)

RESOin teacherURCES

i-Ready Classroom Mathematics **Grade 3:**
→ PRINT RESOURCES:
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations
    - Connect to Culture
    - Discussion Prompts and Instructional Support
  - *Student Worktext* (Use the blue pages for in-class instruction and practice)
- **Independent Practice for School or Home**
  - *Teacher's Guide*
    - Additional Practice
    - Cumulative Practice
  - *Student Worktext* (Use the green pages for independent practice)
    - Additional Practice
    - Cumulative Practice
  - *Teacher Toolbox*
    - Fluency and Skills Practice
    - Unit Game
    - Cumulative Practice
- **Assessments and Reports**
  - *Teacher's Guide*
    - Starts
    - Support Whole Group/Partner Discussion
    - Ask/Listen Fors
    - Common Misconceptions
    - Error Alerts
    - Close: Exit Ticket
  - *Student Worktext*
    - Self Checks
    - Apply It
    - Reflect Questions
    - Self Reflection
    - Math Journal Questions
    - Unit Review
  - *Teacher Toolbox*
    - Editable Lesson Quizzes
    - Editable Mid-Unit and Unit Assessments
- **Differentiation**
  - *Before the Unit/Lesson: Prerequisites Report*
    - Prerequisites Report: Resources
  - *During the Lesson: Teacher's Guide*
    - Hands-On Activities or Visual Models
    - Deepen Understanding
    - ELL Differentiated Instruction
    - Refine Sessions
  - *After the Lesson: Teacher Toolbox*
    - Reteach: Tools for Instruction
    - Reinforce: Math Center Activities
    - Extend: Enrichment Activities
→ DIGITAL RESOURCES

- **In-Class Instruction and Practice:**
  - Interactive Tutorials
  - Digital Math Tools
  - PowerPoint Slides
- **Independent Practice for School or Home**
  - Digital Math Tools
  - Learning Games
  - Interactive Practice
- **Assessments and Reports**
  - Diagnostic
  - Lesson, Mid-Unit, and Unit Comprehension Checks
  - Prerequisites Report
  - Comprehension Check Reports
- **Differentiation**
  - *Interactive Tutorials*
  - *Digital Math Tools*
  - *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:

Number and Operations—Fractions

- **3.NF.A.** Develop an understanding of fractions as numbers.
- **3.NF.A.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 part of size $1/b$.
- **3.NF.A.2** Understand a fraction as a number on the number line; represent fractions on a number line diagram.
- **3.NF.A.2a** Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.
- **3.NF.A.2b** Represent a fraction a/b on a number line diagram by marking off *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.A.3** Explain the equivalence of fractions in special cases and compare fractions by reasoning about their size.
- **3.NF.A.3a** Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line.
- **3.NF.A.3b** Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
- **3.NF.A.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 of a number line diagram.*
- **3.NF.A.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, e.g., by using a visual fraction model.

Measurement and Data

- **3.MD.B.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.

Standards for Mathematical Practice (SMP):

1. Make sense of problems and persevere in solving them. (Lessons 20-26)
2. Reason abstractly and quantitatively. (Lessons 20-26)
3. Construct viable arguments and critique the reasoning of others. (Lessons 20-26)
4. Model with mathematics. (Lessons 20-26)
5. Use appropriate tools strategically. (Lessons 20-26)
6. Attend to precision. (Lessons 20-26)
7. Look for and make use of structure. (Lessons 21-25)
8. Look for and express regularity in repeated reasoning. (Lesson 23)

NJ Student Learning Standards (NJSLS) for English Language Arts:

- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, and speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of the information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy Connection)
- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text complexity or above, with scaffolding as needed. (Literacy Connection)
- **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*). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Social Studies:
- **6.1.5.HistorySE.1** Examine multiple accounts of early European explorations of North America including major land and water routes, reasons for exploration, and the impact the exploration had. (Literacy Connection)

Standard 9: 21st Century Life and Careers:
Career Ready Practices:
- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.4.C.1:** Explain why people borrow money and the relationship between credit and debit.
- **9.2.4.A.4:** Explain why knowledge and skills acquired in elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem solving process.

Standards - 8.1 Computer Science and Design Thinking
- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES - activities/topics [optional]
Self-Awareness and Self-Management:
- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely allow students to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially?," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the *How Does This Math Make Me Feel?* **Sheet** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self-Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discuss It* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, and identifying feelings and thoughts of others who adopt these strategies.

Relationship Skills:

- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved to be more successful.

Interdisciplinary Connections
- Read just-right books in the content areas
- Use mentor texts to deliver Social Studies content
- Compare content area ideas and issues to what our characters deal with in our read-aloud and mentor texts
- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills
- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detailed ideas and lessons

21st Century Skills Integration
- Use Venn diagrams and T chart to compare and contrast events
- Use highlighters, notecards, post-its, and other tools to keep track of story events, details, and ideas.

Unit 4: Fractions: Equivalence and Comparison, Measurement and Data

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Lesson 20: Understand What a Fraction Is **Session 1 EXPLORE:** What a Fraction Is **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** Before beginning the lesson, have students complete the Unit 4 Self-Check on page 455 in their *Student Worktext*. After as outlined on pages 459-462 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 461-462	**Lesson 20:** Understand What a Fraction Is **Session 2 DEVELOP:** Describing Parts of a Whole with Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 463-466 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It: Write Fractions from Models *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Draw Models of Fractions *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 465-466 **Fluency Practice:** Describing Parts of a Whole with Fractions	**Lesson 20:** Understand What a Fraction Is **Session 3 REFINE:** Ideas About What a Fraction Is **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 20 QUIZ* **Activities:** As outlined on pages 464-468b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Lesson 21:** Understand Fractions on a Number Line **Session 1 EXPLORE:** Fractions on a Number Line **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 471-474 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 473-474	**Lesson 21:** Understand Fractions on a Number Line **Session 2 DEVELOP:** Understanding of Fractions on a Number Line **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 475-478 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It: Area Models *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Number Lines *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 477-478 **Fluency Practice:** Understanding of Fractions on a Number Line
DAY 6 **Lesson 21:** Understand Fractions on a Number Line **Session 3 REFINE:** Ideas About Fractions on a Number Line **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 21 QUIZ* **Activities:** As outlined on pages 479-480b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 7** **Lesson 22:** Understand Equivalent Fractions **Session 1 EXPLORE:** Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 483-486 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 485-486	**DAY 8** **Lesson 22:** Understand Equivalent Fractions **Session 2 DEVELOP:** Understanding of Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 487-490 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It: Number Lines *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Fraction Bars *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 489-490 **Fluency Practice:** Understanding of Equivalent Fractions	**DAY 9** **Lesson 22:** Understand Equivalent Fractions **Session 3 REFINE:** Ideas About Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 22 QUIZ* **Activities:** As outlined on pages 491-492b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 10** **Lesson 23:** Find Equivalent Fractions **Session 1 EXPLORE:** Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 495-498 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 497-498
DAY 11 **Lesson 23:** Find Equivalent Fractions **Session 2 DEVELOP:** Finding Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 499-504 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 503-504 **Fluency Practice:** Finding Equivalent Fractions	**Day 12** **Lesson 23:** Find Equivalent Fractions **Session 3 DEVELOP:** Writing a Whole Number as a Fraction **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 505-510 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 509-510 **Fluency Practice:** Writing a Whole Number as a Fraction	**Day 13** **Lesson 23:** Find Equivalent Fractions **Session 4 DEVELOP:** Writing a Whole Number as a Fraction with a Denominator of 1 **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 511-516 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 515-516 **Fluency Practice:** Writing a Whole Number as a Fraction with a Denominator of 1	**DAY 14** **Lesson 23:** Find Equivalent Fractions **Session 5 REFINE:** Finding Equivalent Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 23 QUIZ* **Activities:** As outlined on pages 517-520b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 15** **Unit 4: Mid-Unit Assessment & Finding Equivalent Fractions Practice** **Materials:** ● *Unit 4 Mid-Unit Assessment: Form A	Form B* ● Finding Equivalent Fractions Partner Games ● *Teacher Guide Volume 2* **Activities:** Students will take their Unit 4 Mid-Unit Assessment. *See the Scoring Guide on page 520f in Teacher Guide Volume 2.* When students are done with the Unit 4 Mid-Unit Assessment, have them continue practicing finding equivalent fractions using partner games.

DAY 16	DAY 17	DAY 18	DAY 19	DAY 20
Lesson 24: Understand Comparing Fractions **Session 1 EXPLORE:** Comparing Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 523-526 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(10 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 525-526	**Lesson 24:** Understand Comparing Fractions **Session 2 DEVELOP:** Understanding of Comparing Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 527-530 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Model It: Area Models *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Number Lines *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 529-530 **Fluency Practice:** Understanding of Comparing Fractions	**Lesson 24:** Understand Comparing Fractions **Session 3 REFINE:** Ideas About Comparing Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 24 QUIZ* **Activities:** As outlined on pages 531-532b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Apply *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**Lesson 25:** Use Symbols to Compare Fractions **Session 1 EXPLORE:** Using Symbols to Compare Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 535-538 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 537-538	**Lesson 25:** Use Symbols to Compare Fractions **Session 2 DEVELOP:** Comparing Fractions Using Symbols **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 539-544 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 543-544 **Fluency Practice:** Comparing Fractions Using Symbols
DAY 21 **Lesson 25:** Use Symbols to Compare Fractions **Session 3 REFINE:** Using Symbols to Compare Fractions **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 25 QUIZ* **Activities:** As outlined on pages 545-548b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 22** **Lesson 26:** Measure Length and Plot Data on Line Plots **Session 1 EXPLORE:** Measuring Length and Plotting Data **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 551-554 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 553-554	**DAY 23** **Lesson 26:** Measure Length and Plot Data on Line Plots **Session 2 DEVELOP:** Measuring Length **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 555-560 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model It & Picture It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 559-560 **Fluency Practice:** Measuring Length	**Day 24** **Lesson 26:** Measure Length and Plot Data on Line Plots **Session 3 DEVELOP:** Displaying Data in a Line Plot **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 561-566 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model Its *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 565-566 **Fluency Practice:** Displaying Data in a Line Plot	**DAY 25** **Lesson 26:** Measure Length and Plot Data on Line Plots **Session 4 REFINE:** Measuring Length and Plotting Data on Line Plots **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 26 QUIZ* **Activities:** As outlined on pages 567-570b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ
DAY 26 **Math in Action:** Use Fractions Session 1 **Materials:** ● *Teacher Guide Volume 2* ● *Solution Sheet 2* (1 per student) ● Flower Garden Diagrams ● Floor-sized number line (0-8) ● 20 blocks ● *Student Worktext* **Activities:** As outlined on page 572-577 in *Teacher Guide Volume 2*: 1) Example Problem and Solution *(15 min)* 2) Plan It *(5 min)* 3) Solve It *(10 min)* 4) Reflect *(5 min)* 5) Plan and Solve It *(10 min)* 6) Reflect *(5 min)*	**DAY 27** **Math in Action:** Use Fractions Session 2 **Materials:** ● *Teacher Guide Volume 2* ● *Drinking Fountains Activity Sheet* ● *Trail Signs Activity Sheet* ● Fraction Models (Digital Math Tools) ● *Student Worktext* **Activities:** As outlined on pages 578-579 in *Teacher Guide Volume 2*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*	**DAY 28** **Unit Game:** *Equivalent Fraction Match* **(OPTIONAL)** **Materials: (for each pair):** ● *Equivalent Fraction Match Game* (Recording Sheet & game Cards) ● *Teacher Guide Volume 2* **Activities:** As outlined on page 580 in *Teacher Guide Volume 2*: Have students play *Equivalent Fraction Match* to reinforce fractions using area models and number lines and identifying equivalent fractions.	**DAY 29** **Literacy Connection (Social Studies):** "William Becknell and the Santa Fe Trail" **(OPTIONAL)** **Materials:** ● "William Becknell and the Santa Fe Trail" ● Literacy Connection Problems	Answer Key ● *Teacher Guide Volume 2* **Activities:** As outlined on *Teacher Guide Volume 2* page 581: Students read an informational text about William Becknell and his new route from Missouri to Santa Fe and use their understanding of comparing fractions to complete the activity.	**DAY 30** **Unit 4:** Unit Review **Materials:** ● *Teacher Guide Volume 2* ● *Student Worktext* **Activities:** 1) Have students complete the Unit 4 Self-Reflection on page 571. 2) Students will complete pages 580-582 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. **Use pages 580-582a in Teacher Guide Volume 2 to guide the discussion.**
DAY 31 **Unit 4:** Unit Assessment **Materials:** ● Unit Assessment: Form A	Form B ● *Teacher Guide Volume 2* **ASSESSMENT:** Students will take their Unit 4 Unit Assessment. **See the Scoring Guide on page 582e in Teacher Guide Volume 2.**				

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ ELL Students; Students At Risk; Gifted Students) **by:**
Presentation Accommodations

- Use alternate texts at a lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use a magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of the teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts

Response Accommodations
- Use sign language, a communication device, Braille, other technology, or a native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in a small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for a classmate
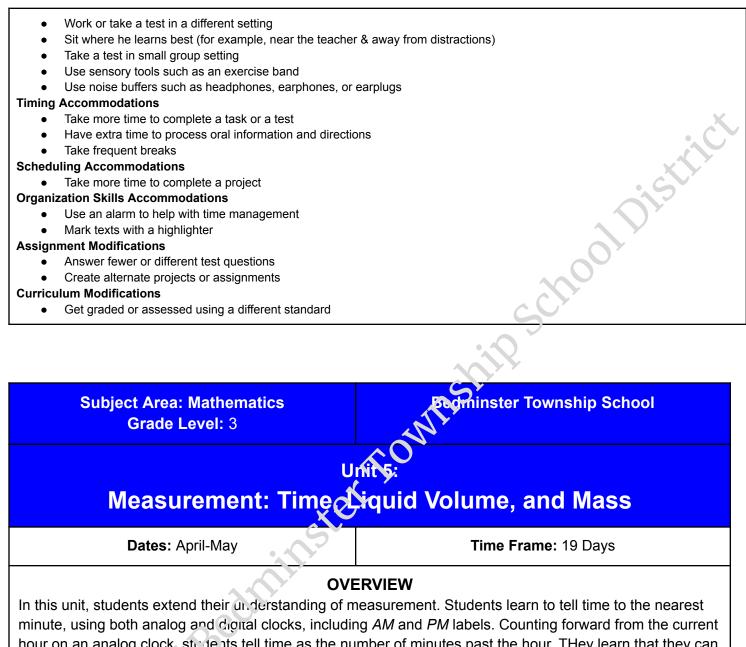
Differentiate Instruction, depending on individual student 504 plan/needs:
Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations

- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Get graded or assessed using a different standard

Subject Area: Mathematics Grade Level: 3	Bedminster Township School
Unit 5: **Measurement: Time, Liquid Volume, and Mass**	
Dates: April-May	**Time Frame:** 19 Days

OVERVIEW

In this unit, students extend their understanding of measurement. Students learn to tell time to the nearest minute, using both analog and digital clocks, including *AM* and *PM* labels. Counting forward from the current hour on an analog clock, students tell time as the number of minutes past the hour. THey learn that they can also count backward from the next hour to tell the time as the number of minutes before the next hour. Students then apply these skills to measuring time intervals in minutes as well as to solving problems involving addition and subtraction of time intervals. Students reason about the relationship between start time, elapsed time and end time, using models of clocks and number lines and determine end times (given the start time and elapsed time interval) and start times (given the end time and elapsed time interval).

Students are formally introduced to the concept of liquid volume. They learn how to relate the amount of liquid in 1 liter to the amount of liquid in containers they are familiar with (e.g., single-serve milk containers, milk jugs). Using pictures, students estimate the liquid volume of a container by seeing how much of the container is filled by a 1-liter amount of liquid and then use that information to estimate how many liters of liquid the container can hold when full. Students also solve one-step word problems about liquid volume by writing and solving addition, subtraction, multiplication, or division equations that represent the problem situation.

Students are also formally introduced to the concept of mass as a way to tell how heavy an object is.

Students use familiar objects such as a paper clip and a hardcover book as references to understand a mass of 1 gram and 1 kilogram, then estimate mass and solve one-step word problems that involve mass.

ENDURING UNDERSTANDINGS

- We use both analog and digital clocks to tell time. Knowing how to read clocks will help you solve problems involving elapsed time.
- You can use what you know about measurement to estimate and measure the volume of liquid in liters and mass of an object in grams or kilograms.

SKILL AND KNOWLEDGE OBJECTIVES

Content Objectives:
- Use an analog clock to tell and write time to the nearest minute. (Lesson 27)
- Relate time on analog and digital clocks. (Lesson 27)
- Express time as the number of minutes before the hour. (Lesson 27)
- Understand the difference between AM and PM. (Lesson 27)
- Measure time intervals in minutes using clock models and number lines. (Lesson 27)
- Solve word problems involving addition or subtraction of time intervals in minutes. (Lesson 27)
- Identify items that can be measured in liquid volume units. (Lesson 28)
- Use unit size to estimate liquid volume (capacity). (Lesson 28)
- Solve one-step word problems involving liquid volume (capacity). (Lesson 28)
- Understand that one way objects can be measured is by how heavy or light they are. (Lesson 29)
- Identify items that can be measured in mass units. (Lesson 29)
- Understand the relative masses of gram and kilogram. (Lesson 29)
- Use unit size to estimate mass. (Lesson 29)
- Solve one-step word problems involving mass. (Lesson 29)

Language Objectives:
- Tell the time shown on a digital or an analog clock to the minute. (Lesson 27)
- Draw hands on an analog clock to show a given time. (Lesson 27)
- Use the terms *AM* and *PM* appropriately in writing and speaking. (Lesson 27)
- Tell how to find the end time when the start time and elapsed time are given. (Lesson 27)
- Tell how to find the start time when the end time and elapsed time are given. (Lesson 27)
- List everyday containers that can hold about 1 liter of liquid. (Lesson 28)
- Estimate the liquid volume of various containers and justify the estimate. (Lesson 28)
- Orally define and use the key mathematical terms *liquid volume* and *liter* in discussions. (Lesson 28)
- Restate word problems involving liquid volume with liters. (Lesson 28)
- List everyday objects that have a mass of about 1 gram or 1 kilogram. (Lesson 29)
- Estimate the mass of various objects and justify the estimate. (Lesson 29)
- Use key mathematical terms *mass, gram,* and *kilogram* to communicate effectively. (Lesson 29)
- Tell what mass is shown in pictures of balance scales and spring scales. (Lesson 29)
- Restate word problems involving mass. (Lesson 29)

ASSESSMENTS

Pre-Assessment:
- Prerequisites Report (in *Teacher Digital Experience*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext)*
- Lesson Quizzes (attached in unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)

- Apply It (in *Student Worktext)*
- Reflect Questions (in *Student Worktext)*
- Self Reflection (in *Student Worktext)*
- Math Journal Questions (in *Student Worktext)*
- Unit Review (in *Student Worktext)*

Summative Assessment:
- Performance Task (in *Student Worktext)*
- Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)

RESOURCES

***i-Ready Classroom Mathematics* Grade 3:**
→ PRINT RESOURCES:
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations
    - Connect to Culture
    - Discussion Prompts and Instructional Support
  - *Student Worktext* (Use the blue pages for in-class instruction and practice)
- **Independent Practice for School or Home**
  - *Teacher's Guide*
    - Additional Practice
    - Cumulative Practice
  - *Student Worktext* (Use the green pages for independent practice)
    - Additional Practice
    - Cumulative Practice
  - *Teacher Toolbox*
    - Fluency and Skills Practice
    - Unit Game
    - Cumulative Practice
- **Assessments and Reports**
  - *Teacher's Guide*
    - Starts
    - Support Whole Group/Partner Discussion
    - Ask/Listen Fors
    - Common Misconceptions
    - Error Alerts
    - Close: Exit Ticket
  - *Student Worktext*
    - Self Checks
    - Apply It
    - Reflect Questions
    - Self Reflection
    - Math Journal Questions
    - Unit Review
  - *Teacher Toolbox*
    - Editable Lesson Quizzes
    - Editable Mid-Unit and Unit Assessments
- **Differentiation**
  - *Before the Unit/Lesson: Prerequisites Report*
    - Prerequisites Report: Resources
  - *During the Lesson: Teacher's Guide*
    - Hands-On Activities or Visual Models
    - Deepen Understanding
    - ELL Differentiated Instruction
    - Refine Sessions
  - *After the Lesson: Teacher Toolbox*
    - Reteach: Tools for Instruction
    - Reinforce: Math Center Activities
    - Extend: Enrichment Activities

→ **DIGITAL RESOURCES**
- **In-Class Instruction and Practice:**
  - Interactive Tutorials
  - Digital Math Tools
  - PowerPoint Slides
- **Independent Practice for School or Home**
  - Digital Math Tools
  - Learning Games
  - Interactive Practice
- **Assessments and Reports**
  - Diagnostic
  - Lesson, Mid-Unit, and Unit Comprehension Checks
  - Prerequisites Report
  - Comprehension Check Reports
- **Differentiation**
  - *Interactive Tutorials*
  - *Digital Math Tools*
  - *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:
Measurement and Data
- **3.MD.A Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**
- **3.MD.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.MD.A.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). 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.

Numbers and Operations in Base Ten
- **3.NBT.A.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Standards for Mathematical Practice (SMP):
1. Make sense of problems and persevere in solving them. (Lessons 27-29)
2. Reason abstractly and quantitatively. (Lessons 27-29)
3. Construct viable arguments and critique the reasoning of others. (Lessons 27-29)
4. Model with mathematics. (Lessons 27-29)
5. Use appropriate tools strategically. (Lessons 27-29)
6. Attend to precision. (Lessons 27-29)
7. Look for and make use of structure. (Lessons 27)
8. Look for and express regularity in repeated reasoning. (Lesson 29)

NJ Student Learning Standards (NJSLS) for English Language Arts:
- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their own ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy Connection)

- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. (Literacy Connection)
- **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*). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Science:
- **3-ESS2-1.** Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. [Clarification Statement: Examples of data could include average temperature, precipitation, and wind direction.] (Literacy Connection)

Standard 9: 21st Century Life and Careers:
Career Ready Practices:
- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.4.C.1:** Explain why people borrow money and the relationship between credit and debit.
- **9.2.4.A.4:** Explain why knowledge and skills acquired in elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem solving process.

Standards - 8.1 Computer Science and Design Thinking
- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES - activities/topics [optional]
Self-Awareness and Self-Management:
- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely give students the opportunity to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the ***How Does This Math Make Me Feel? Sheet*** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discussion* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies.

Relationship Skills:
- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.

Interdisciplinary Connections
- Read just right books in the content areas
- Use mentor texts to deliver Social Studies content

- Compare content area ideas and issues to what our characters deal with in out read alouds and mentor texts
- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills
- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detail ideas and lessons

21st Century Skills Intergration
- Use venn diagrams and T chart to compare and contrast events
- Use highlighters, notecards, post-its and other tools to keep track of sory events details and ideas.

Unit 5: Measurement: Time, Liquid Volume, and Mass

DAY 1	DAY 2	Day 3	Day 4	DAY 5
Lesson 27: Time	**Lesson 27:** Time	**Lesson 27:** Time	**Lesson 27:** Time	**Lesson 27:** Time
Session 1 EXPLORE: Working with Time	**Session 2 DEVELOP:** Telling Time to the Minute	**Session 3 DEVELOP:** Finding the End Time in Word Problems	**Session 4 DEVELOP:** Finding the Start Time in Word Problems	**Session 5 REFINE:** Understanding of Time
Materials:	**Materials:**	**Materials:**	**Materials:**	**Materials:**
● *Student Worktext* ● *Teacher Guide Volume 2*	● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools*	● *Student Worktext* ● *Teacher Guide Volume 2*	● *Student Worktext* ● *Teacher Guide Volume 2*	● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 27 QUIZ*
Activities: Before beginning the lesson, have students complete the Unit 5 Self-Check on page 585 in their *Student Worktext*. After, as outlined on pages 589-592 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 593-598 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 599-604 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 605-610 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)*	**Activities:** As outlined on pages 611-614b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)*
Additional Practice: *Student Worktext* pages 591-592	**Additional Practice:** *Student Worktext* pages 597-598 **Fluency Practice:** Telling Time to the Minute	**Additional Practice:** *Student Worktext* pages 603-604 **Fluency Practice:** Finding the End Time in Word Problems	**Additional Practice:** *Student Worktext* pages 609-610 **Fluency Practice:** Finding the Start Time in Word Problems *(Digital Math Tools)*	**ASSESSMENT:** LESSON QUIZ

DAY 6 **Lesson 28:** Liquid Volume **Session 1 EXPLORE:** Working with Liquid Volume **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 617-620 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 619-620	**DAY 7** **Lesson 28:** Liquid Volume **Session 2 DEVELOP:** Estimating Liquid Volume **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 621-626 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 625-626 **Fluency Practice:** Estimating Liquid Volume	**Day 8** **Lesson 28:** Liquid Volume **Session 3 DEVELOP:** Solving Word Problems About Liquid Volume **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 627-632 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 631-632 **Fluency Practice:** Solving Word Problems About Liquid Volume	**DAY 9** **Lesson 28:** Liquid Volume **Session 4 REFINE:** Understanding of Liquid Volume **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 28 QUIZ* **Activities:** As outlined on pages 633-636b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 10** **Lesson 29:** Mass **Session 1 EXPLORE:** Working with Mass **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 639-642 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 641-642
DAY 11 **Lesson 29:** Mass **Session 2 DEVELOP:** Estimating Mass **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 643-648 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 647-648 **Fluency Practice:** Estimating Mass	**Day 12** **Lesson 29:** Mass **Session 3 DEVELOP:** Solving Word Problems About Mass **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 649-654 in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It *(5 min)* 5) *Connect It (10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 653-654 **Fluency Practice:** Solving Word Problems About Mass	**DAY 13** **Lesson 29:** Mass **Session 4 REFINE:** Understanding of Mass **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 29 QUIZ* **Activities:** As outlined on pages 655-658b in *Teacher Guide Volume 2*: 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 14** **Math in Action:** Solve Measurement Problems **Session 1** **Materials:** ● *Teacher Guide Volume 2* ● *Solution Sheet 1* (1 per student) ● Base-Ten Blocks *(Digital Math Tools)* ● *Student Worktext* **Activities:** As outlined on page 660-665 in *Teacher Guide Volume 2*: 1) Example Problem and Solution *(15 min)* 2) Plan It *(5 min)* 3) Solve It *(10 min)* 4) Reflect *(5 min)* 5) Plan and Solve It *(10 min)* 6) Reflect *(5 min)*	**DAY 15** **Math in Action:** Solve Measurement Problems **Session 2** **Materials:** ● *Teacher Guide Volume 2* ● Base-Ten Blocks *(Digital Math Tools)* ● *Student Worktext* **Activities:** As outlined on pages 666-667 in *Teacher Guide Volume 2*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*
DAY 16 **Unit Game:** *Time Match* **(OPTIONAL)** **Materials (for each pair):** ● *Time Match* Game (Recording Sheet x2, Game Cards) ● *Teacher Guide Volume 2* **Activities:** As outlined on page 668 in *Teacher Guide Volume 2*: Have students play *Time Match* to reinforce finding a start or end time given an elapsed time.	**DAY 17** **Literacy Connection (Science):** "Cloudy with a Chance of Cats and Dogs" **(OPTIONAL)** **Materials:** ● "Cloudy with a Chance of Cats and Dogs" ● Literacy Connection Problems Answer Key ● *Teacher Guide Volume 2* **Activities:** As outlined on *Teacher Guide Volume 2* page 669: Students read an informational text about how clouds are formed and how rain and snow are made and use their understanding of liquid volume to complete the activity.	**DAY 18** **Unit 5: Unit Review** **Materials:** ● *Teacher Guide Volume 2* ● *Student Worktext* **Activities:** 1) Have students complete the Unit 5 Self-Reflection on page 659. 2) Students will complete pages 668-770 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. ***Use pages 668-670a in Teacher Guide Volume 2 to guide the discussion.***	**DAY 19** **Unit 5: Unit Assessment** **Materials:** ● Unit 5 Assessment: *Form A*	*Form B* ● *Teacher Guide Volume 2* **ASSESSMENT:** Students will take their Unit 5 Assessment. ***See the Scoring Guide on page 670e in Teacher Guide Volume 2.***	

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ELL Students; Students At Risk; Gifted Students) **by:**

Presentation Accommodations

● Use alternate texts at lower readability level
● Work with fewer items per page or line and/or materials in a larger print size
● Use magnification device, screen reader, or Braille / Nemeth Code
● Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
● Be given a written list of instructions
● Record a lesson, instead of taking notes
● Have another student share class notes with him
● Be given an outline of a lesson
● Be given a copy of teacher's lecture notes
● Be given a study guide to assist in preparing for assessments
● Use visual presentations of verbal material, such as word webs and visual organizers
● Use manipulatives to teach or demonstrate concepts

Response Accommodations

● Use sign language, a communication device, Braille, other technology, or native language other than English
● Dictate answers to a scribe
● Capture responses on an audio recorder

- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for classmates

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Differentiate Instruction, depending on individual student 504 plan needs:
Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations
- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions

- Create alternate projects or assignments

Curriculum Modifications
- Get graded or assessed using a different standard

Subject Area: Mathematics Grade Level: 3	Bedminster Township School

Unit 6: **Shapes: Attributes and Categories, Perimeter and Area, and Partitioning**

Dates: May-June	**Time Frame:** 21 Days

OVERVIEW

In this unit, students extend their understanding of two-dimensional shapes as they discover that shapes can be described in more precise ways than just by the numbers of sides and angles. Students recognize that shape can also be categorized by these characteristics and explore comparing shapes and grouping them by their attributes. Students also identify and draw shapes that belong and do not belong to a particular group or category.

Students consider how categories of shapes are related as they classify quadrilaterals. They identify quadrilaterals as four-sided shapes and recognize that other attributes of quadrilaterals distinguish one shape from another. Students identify parallelograms, rectangles, and rhombuses based on attributes, such as the number of right angles, presence of parallel sides, and sides and pairs of sides that are the same length. Students compare attributes of squares and rectangles and come to understand that although all squares are rectangles, not all rectangles are squares. Students also name and draw quadrilaterals based on given attributes.

Students learn how the perimeter of a rectangle is related to its area. They find the perimeter of a shape by adding together the side lengths of a shape. Given perimeter, students determine an unknown side length. Students also recognize that rectangles can have the same area and different perimeters or the same perimeter and different areas. They investigate these relationships with drawings of rectangles as well as with tables that list measurements of rectangles. Students also reason about rectangles with the same area and different perimeters using their knowledge of multiplication facts.

ENDURING UNDERSTANDINGS
- Two-dimensional shapes have many attributes. Knowing about these attributes will help you categorize shapes.   - Perimeter is the sum of a shape's side lengths, and area measures the space inside the shape. Knowing a rectangle's perimeter or area can help you reason about its shape.   - You can divide shapes into equal parts to show fractional parts of a whole.

SKILL AND KNOWLEDGE OBJECTIVES

Content Objectives:
- Identify two-dimensional shapes and their attributes. (Lesson 30)
- Draw two-dimensional shapes, given attributes. (Lesson 30)
- Compare and contrast attributes of two-dimensional shapes according to their attributes. (Lesson 30)
- Categorize two-dimensional shapes according to attributes. (Lesson 30)
- Identify and draw two-dimensional shapes that do not belong to a given category. (Lesson 30)
- Identify quadrilaterals and their attributes. (Lesson 31)
- Draw quadrilaterals, given attributes. (Lesson 31)
- Compare and contrast attributes of quadrilaterals. (Lesson 31)
- Identify shared attributes of different attributes. (Lesson 31)
- Categorize quadrilaterals according to attributes. (Lesson 31)
- Identify and draw quadrilaterals that do not belong to a given category. (Lesson 31)
- Understand the difference between perimeter and area. (Lesson 32)
- Use side lengths to find the perimeter of a shape. (Lesson 32)
- Find an unknown side length given the perimeter of a shape. (Lesson 32)
- Understand that rectangles with the same area can have different perimeters. (Lesson 32)
- Understand that rectangles with the same perimeter can have different areas. (Lesson 32)

Language Objectives:
- Draw shapes with particular attributes. (Lesson 30)
- Tell the names of shapes with particular attributes. (Lesson 30)
- Use the key vocabulary terms *angle* and *right angle* to communicate effectively with a partner. (Lesson 30)
- Define key vocabulary terms *attribute, parallel, parallelogram, quadrilateral, rectangle,* and *rhombus* to discuss reasoning. (Lesson 31)
- Draw a quadrilateral with given attributes. (Lesson 31)
- Tell the difference between area and perimeter. (Lesson 32)
- Write an addition equation to represent the perimeter of a polygon. (Lesson 32)
- Use the key vocabulary term *perimeter* when discussing area and perimeter with a partner. (Lesson 32)
- Draw two rectangles with the same perimeter but different areas. (Lesson 32)
- Draw two rectangles with the same area but different perimeters. (Lesson 32)

ASSESSMENTS

Pre-Assessment:
- Prerequisites Report (in *Teacher Digital Experience*)
- Starts (in *Teacher Guide*)

Formative Assessment:
- Whole-class and partner discussion
- Whiteboard work
- Close: Exit Ticket (in *Student Worktext)*
- Lesson Quizzes (attached in unit breakdown and also in *Teacher Toolbox*)

Self-Reflection/Self-Assessment:
- Unit Skills Self-Check (in *Student Worktext*)
- Apply It (in *Student Worktext)*
- Reflect Questions (in *Student Worktext)*
- Self Reflection (in *Student Worktext)*
- Math Journal Questions (in *Student Worktext)*
- Unit Review (in *Student Worktext)*

Summative Assessment:
- Performance Task (in *Student Worktext)*
- Unit Assessment - Form A & Form B (also in *Teacher Toolbox*)

RESOURCES

***i-Ready Classroom Mathematics* Grade 3:**
→ **PRINT RESOURCES:**
- **In-Class Instruction and Practice:**
  - *Teacher's Guide*
    - Lesson Progression
    - ELL Language Expectations

- ■ Connect to Culture
- ■ Discussion Prompts and Instructional Support
  - ○ *Student Worktext* (Use the blue pages for in-class instruction and practice)
- ● **Independent Practice for School or Home**
  - ○ *Teacher's Guide*
    - ■ Additional Practice
    - ■ Cumulative Practice
  - ○ *Student Worktext* (Use the green pages for independent practice)
    - ■ Additional Practice
    - ■ Cumulative Practice
  - ○ *Teacher Toolbox*
    - ■ Fluency and Skills Practice
    - ■ Unit Game
    - ■ Cumulative Practice
- ● **Assessments and Reports**
  - ○ *Teacher's Guide*
    - ■ Starts
    - ■ Support Whole Group/Partner Discussion
    - ■ Ask/Listen Fors
    - ■ Common Misconceptions
    - ■ Error Alerts
    - ■ Close: Exit Ticket
  - ○ *Student Worktext*
    - ■ Self Checks
    - ■ Apply It
    - ■ Reflect Questions
    - ■ Self Reflection
    - ■ Math Journal Questions
    - ■ Unit Review
  - ○ *Teacher Toolbox*
    - ■ Editable Lesson Quizzes
    - ■ Editable Mid-Unit and Unit Assessments
- ● **Differentiation**
  - ○ *Before the Unit/Lesson: Prerequisites Report*
    - ■ Prerequisites Report: Resources
  - ○ *During the Lesson: Teacher's Guide*
    - ■ Hands-On Activities or Visual Models
    - ■ Deepen Understanding
    - ■ ELL Differentiated Instruction
    - ■ Refine Sessions
  - ○ *After the Lesson: Teacher Toolbox*
    - ■ Reteach: Tools for Instruction
    - ■ Reinforce: Math Center Activities
    - ■ Extend: Enrichment Activities
- → **DIGITAL RESOURCES**
- ● **In-Class Instruction and Practice:**
  - ○ Interactive Tutorials
  - ○ Digital Math Tools
  - ○ PowerPoint Slides
- ● **Independent Practice for School or Home**
  - ○ Digital Math Tools
  - ○ Learning Games
  - ○ Interactive Practice
- ● **Assessments and Reports**
  - ○ Diagnostic
  - ○ Lesson, Mid-Unit, and Unit Comprehension Checks
  - ○ Prerequisites Report
  - ○ Comprehension Check Reports
- ● **Differentiation**
  - ○ *Interactive Tutorials*

- ○ *Digital Math Tools*
- ○ *Learning Games*

STANDARDS

NJ Student Learning Standards (NJSLS) for Mathematics:

Geometry
- **3.G.A** Reason with shapes and their attributes.
- **3.G.A.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.A.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.*

Measurement and Data
- **3.MD.D** Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
- **3.MD.C.5a** A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
- **3.MD.C.5b** 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.MD.C.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units).
- **3.MD.C.7a** 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.MD.C.7b** Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
- **3.MD.D.8** 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.

Number and Operations—Fractions
- **3.NF.A.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.

Standards for Mathematical Practice (SMP):
1. Make sense of problems and persevere in solving them. (Lessons 30-33)
2. Reason abstractly and quantitatively. (Lessons 30-33)
3. Construct viable arguments and critique the reasoning of others. (Lessons 30-33)
4. Model with mathematics. (Lessons 30-33)
5. Use appropriate tools strategically. (Lessons 30-33)
6. Attend to precision. (Lessons 30-33)
7. Look for and make use of structure. (Lessons 30-33)

NJ Student Learning Standards (NJSLS) for English Language Arts:
- **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.3.1.A** Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.
- **SL.3.1.B** Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- **SL.3.1.C** Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- **SL.3.1.D** Explain their own ideas and understanding in light of the discussion.
- **SL.3.3.** Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.
- **RI.3.7.** Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (Literacy

Connection)

- **RI.3.10** By the end of the year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed. (Literacy Connection)
- **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*). (Lessons & Literacy Connection)

NJ Student Learning Standards (NJSLS) for Science:
- **3-LS3-2.** Use evidence to support the explanation that traits can be influenced by the environment. (Literacy Connection)

Standard 9: 21st Century Life and Careers:
Career Ready Practices:
- **CRP2** Apply appropriate academic and technical skills
- **CRP4** Communicate clearly and effectively and with reason
- **CRP8** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP11** Use technology to enhance productivity.
- **9.1.4.C.1:** Explain why people borrow money and the relationship between credit and debit.
- **9.2.4.A.4:** Explain why knowledge and skills acquired in elementary grades lay the foundation for future academic and career success.
- **9.4.5.CT.1:** Identify and gather relevant data that will aid in the problem solving process.

Standards - 8.1 Computer Science and Design Thinking
- **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
- **8.1.P.C.1** Collaborate with peers by participating in interactive digital games or activities.

SOCIAL AND EMOTIONAL COMPETENCIES - activities/topics [optional]

Self-Awareness and Self-Management:
- Lead discussions that encourage students to reflect on barriers they may encounter when completing an assignment (e.g., finding a computer) and that also help them think about ways they can overcome them, including how to approach others for help (e.g., how to politely ask the teacher for help).
- Routinely give students the opportunity to reflect on when they have had success in math or what kinds of problems/puzzles they prefer. Also ask students why they like the types of materials they identified, e.g., "Why do you think you liked this problem, especially," "Why do you think you like solving those kinds of problems/puzzles?," "Will you share with me the strategy that helped you solve this problem?".
- At the end of each session (daily) or lesson (weekly), have students complete the ***How Does This Math Make Me Feel? Sheet*** to learn to become more self-aware about how they feel about the topics they are learning.
- At the end of the unit, have students self-assess progress toward their learning goals and help support a Growth Mindset by reviewing the skills on the **Student Worktext Self Reflection** page. Encourage students to revisit the work they did in each lesson.

Social Awareness:
- During the *Discussion* portion of the daily lessons, build respect for diversity in the classroom by having students share their different perspectives on situations or solution strategies for the same problem.
- Lead discussions about taking different approaches to problem solutions, identifying feelings and thoughts of others who adopt these strategies.

Relationship Skills:
- Teach lessons on nonverbal classroom signals to encourage listening. For example, the class might use common hand signals to show agreement, to request clarification, or to recognize a different strategy.
- Have students work in pairs during daily lessons. For example, students can play partner games during the Fluency Practice portion of daily lessons to build fluency

Responsible Decision-Making:
- Encourage students to reflect on how they approached mathematics "today," including in journals or pair shares. Ask them to include how their choices could be repeated if successful or improved in order to be more successful.

Interdisciplinary Connections
- Read just right books in the content areas
- Use mentor texts to deliver Social Studies content
- Compare content area ideas and issues to what our characters deal with in out read alouds and mentor texts

- Apply reading skills and strategies to the reading we do in the content areas
- Apply spelling strategies
- Apply grammar skills
- Analyze illustrations in books for details
- Illustrate a passage that was just read to show detail ideas and lessons

21st Century Skills Integration
- Use venn diagrams and T chart to compare and contrast events
- Use highlighters, notecards, post-its and other tools to keep track of sory events details and ideas.

Unit 6: Shapes: Attributes and Categories, Perimeter and Area, and Partitioning

DAY 1 **Lesson 30:** Understand Categories of Shapes **Session 1 EXPLORE:** Categories of Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** Before beginning the lesson, have students complete the Unit 673 Self-Check in their *Student Worktext.* After, as outlined on pages 677-680 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 679-680	**DAY 2** **Lesson 30:** Understand Categories of Shapes **Session 2 DEVELOP:** Understanding of Comparing Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 681-684 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Model It: Sort Shapes *(5 min)* 3) Discuss It *(5 min)* 4) Model It: Describe Shapes *(5 min)* 5) Discuss It *(5 min)* 6) Connect It *(15 min)* 7) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 683-684 **Fluency Practice:** Understanding of Comparing Shapes	**DAY 3** **Lesson 30:** Understand Categories of Shapes **Session 3 REFINE:** Ideas About Comparing Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 30 QUIZ* **Activities:** As outlined on pages 685-686b in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Apply It *(35 min)* 3) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 5** **Lesson 31:** Classify Quadrilaterals **Session 1 EXPLORE:** Classifying Quadrilaterals **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 689-692 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 691-692	**DAY 5** **Lesson 31:** Classify Quadrilaterals **Session 2 DEVELOP:** Comparing Quadrilaterals **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 693-698 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It & Model It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 697-698 **Fluency Practice:** Comparing Quadrilaterals
Day 6 **Lesson 31:** Classify Quadrilaterals **Session 3 DEVELOP:** Naming and Drawing Quadrilaterals **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 699-704 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model It & Solve It *(5 min)* 5) Connect It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 703-704 **Fluency Practice:** Naming and Drawing Quadrilaterals	**DAY 7** **Lesson 31:** Classify Quadrilaterals **Session 4 REFINE:** Classifying Quadrilaterals **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 31 QUIZ* **Activities:** As outlined on pages 705-708b in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 8** **Lesson 32:** Area and Perimeter of Shapes **Session 1 EXPLORE:** Area and Perimeter of Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 711-714 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Connect It *(15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 713-714	**DAY 9** **Lesson 32:** Area and Perimeter of Shapes **Session 2 DEVELOP:** Finding an Unknown Side Length **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 715-720 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Picture It *(5 min)* 5) Connect It & Apply It *(15 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 719-720 **Fluency Practice:** Finding an Unknown Side Length	**Day 10** **Lesson 32:** Area and Perimeter of Shapes **Session 3 DEVELOP:** Finding Same Area with Different Perimeter **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 721-726 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It & Discuss It *(15 min)* 3) Picture It & Model It *(5 min)* 4) *Connect It & Apply It (15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 725-726 **Fluency Practice:** Finding Same Area with Different Perimeter
Day 11 **Lesson 32:** Area and Perimeter of Shapes **Session 4 DEVELOP:** Finding Same Perimeter with Different Area **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 727-731 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It & Discuss It *(15 min)* 3) Picture It & Model It *(5 min)* 4) *Connect It & Apply It (15 min)* 5) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 731-731 **Fluency Practice:** Finding Same Perimeter with Different Area	**DAY 12** **Lesson 32:** Area and Perimeter of Shapes **Session 5 REFINE:** Working with Area and Perimeter of Shapes **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 32 QUIZ* **Activities:** As outlined on pages 732-736b in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ	**DAY 13** **Lesson 33:** Partition Shapes into Parts with Equal Areas **Session 1 EXPLORE:** Partitioning Shapes into Parts with Equal Areas **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* **Activities:** As outlined on pages 739-742 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Model It *(10 min)* 3) Discuss It *(5 min)* 4) Model It *(10 min)* 5) Discuss It *(10 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 741-742	**DAY 14** **Lesson 33:** Partition Shapes into Parts with Equal Areas **Session 2 DEVELOP:** Partitioning Shapes into Equal Parts **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *Digital Math Tools* **Activities:** As outlined on pages 743-748 in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Try It *(10 min)* 3) Discuss It *(10 min)* 4) Model It & Solve It *(5 min)* 5) Connect It and Apply It *(15 min)* 6) Close: Exit Ticket *(5 min)* **Additional Practice:** *Student Worktext* pages 747-748 **Fluency Practice:** Partitioning Shapes into Equal Parts	**DAY 15** **Lesson 33:** Partition Shapes into Parts with Equal Areas **Session 3 REFINE:** Partitioning Shapes into Parts with Equal Areas **Materials:** ● *Student Worktext* ● *Teacher Guide Volume 2* ● *LESSON 33 QUIZ* **Activities:** As outlined on pages 749-752b in *Teacher Guide Volume 2:* 1) Start *(5 min)* 2) Example & Problems 1-3 *(15 min)* 3) Practice & Small Group Differentiation *(20 min)* 4) Close: Exit Ticket *(5 min)* **ASSESSMENT:** LESSON QUIZ

DAY 16	DAY 17	DAY 18	DAY 19	DAY 20
DAY 16 **Math in Action:** Work with Shapes **Session 1** **Materials:** ● *Teacher Guide Volume 2* *For each student:* ● Solution Sheet 2 ● Paper Squares ● *Student Worktext* *For each pair:* ● 2 paper bags ● 2 different shapes (pattern blocks, plastic or paper shapes) **Activities:** As outlined on page 754-759 in *Teacher Guide Volume 2*: 1) Example Problem and Solution *(15 min)* 2) Plan It *(5 min)* 3) Solve It *(10 min)* 4) Reflect *(5 min)* 5) Plan and Solve It *(10 min)* 6) Reflect *(5 min)*	**DAY 17** **Math in Action:** Work with Shapes **Session 2** **Materials:** ● *Teacher Guide Volume 2* ● *Student Worktext* **Activities:** As outlined on pages 760-761 in *Teacher Guide Volume 2*: 1) Solve It *(20 min)* 2) Reflect *(5 min)* 3) Solve It *(20 min)* 4) Reflect *(5 min)*	**DAY 18** **Unit Game:** *Shape Attribute Cover-Up* **(OPTIONAL)** **Materials (for each pair):** ● Shape Attribute Cover-Up Game (Recording Sheet x2, Game Board x 2, 32 two-color counters, & game cards) ● *Teacher Guide Volume 2* **Activities:** As outlined on page 762 in *Teacher Guide Volume 2*: Have students play *Shape Attribute Cover-Up* to reinforce identifying shapes based on attributes.	**DAY 19** **Literacy Connection (Social Studies):** "The Buzz on Sniffer Bees" **(OPTIONAL)** **Materials:** ● "The Buzz on Sniffer Bees" ● Literacy Connection Problems | Answer Key ● *Teacher Guide Volume 2* **Activities:** As outlined on *Teacher Guide Volume 2* page 763: Students read an informational text about sniffer bees and their keen sense of smell and use their understanding of perimeter and area to complete the problems. **GLOBAL WARMING CONNECTION:** Talk about the role bees play in the environment.	**DAY 20** **Unit 6:** Unit Review **Materials:** ● *Teacher Guide Volume 2* ● *Student Worktext* **Activities:** 1) Have students complete the Unit 6 Self-Reflection on page 753. 2) Students will complete pages 762-764 in their *Student Worktext*. 3) As a class, review and discuss student answers and strategies. ***Use pages 762-764a in Teacher Guide Volume 2 to guide the discussion.***
DAY 21 **Unit 6:** Unit Assessment **Materials:** ● *Unit 6 Assessment:* Form A | Form B ● *Teacher Guide Volume 2* **ASSESSMENT:** Students will take their Unit 6 Assessment. ***See the Scoring Guide on page 764e in Teacher Guide Volume 2.***				

Differentiate Instruction, depending on individual student needs (students with an IEP, MLL/ELL Students; Students At Risk; Gifted Students) **by:**

Presentation Accommodations
- Use alternate texts at lower readability level
- Work with fewer items per page or line and/or materials in a larger print size
- Use magnification device, screen reader, or Braille / Nemeth Code
- Use audio amplification device (e.g., hearing aid(s), auditory trainer, sound-field system (which may require teacher use of microphone)
- Be given a written list of instructions
- Record a lesson, instead of taking notes
- Have another student share class notes with him
- Be given an outline of a lesson
- Be given a copy of teacher's lecture notes
- Be given a study guide to assist in preparing for assessments
- Use visual presentations of verbal material, such as word webs and visual organizers
- Use manipulatives to teach or demonstrate concepts

Response Accommodations
- Use sign language, a communication device, Braille, other technology, or native language other than English
- Dictate answers to a scribe
- Capture responses on an audio recorder
- Use a spelling dictionary or electronic spell checker
- Use a word processor to type notes or give responses in class

Setting Accommodations
- Work or take a test in a different setting, such as a quiet room with few distractions
- Sit where he learns best (for example, near the teacher & away from distractions)
- Use special lighting or acoustics
- Take a test in small group setting
- Use sensory tools such as an exercise band that can be looped around a chair's legs (so fidgety kids can kick it and quietly get their energy out)
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks, such as after completing a task

Scheduling Accommodations
- Take more time to complete a project
- Take a test in several timed sessions or over several days
- Take sections of a test in a different order
- Take a test at a specific time of day

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications

- Learn different material (such as continuing to work on multiplication while classmates move on to fractions, or moving ahead to an extension concept/skill while classmates continue to work on a core skill)
- Get graded or assessed using a different standard than the one for classmate

Differentiate Instruction, depending on individual student 504 plan/needs:
Presentation Accommodations
- Use alternate texts l
- Work with fewer items per page
- Use audio amplification device
- Be given a written list of instructions
- Be given an outline of a lesson
- Be given a study guide
- Use visual presentations of verbal material
- Use manipulatives

Response Accommodations
- Dictate answers to a scribe
- Use a spelling dictionary or electronic spell-checker
- Use a word processor to type notes

Setting Accommodations
- Work or take a test in a different setting
- Sit where he learns best (for example, near the teacher & away from distractions)
- Take a test in small group setting
- Use sensory tools such as an exercise band
- Use noise buffers such as headphones, earphones, or earplugs

Timing Accommodations
- Take more time to complete a task or a test
- Have extra time to process oral information and directions
- Take frequent breaks

Scheduling Accommodations
- Take more time to complete a project

Organization Skills Accommodations
- Use an alarm to help with time management
- Mark texts with a highlighter

Assignment Modifications
- Answer fewer or different test questions
- Create alternate projects or assignments

Curriculum Modifications
- Get graded or assessed using a different standard