Grade 3 Unit 5 and 7 Fractions

Content Area: **Math**
Course(s):
Time Period: **Trimester 2**
Length: **5 Cycles**
Status: **Published**

Course Pacing Guide

Unit 5 and 7- Fractions

5-1 Exploring Equal Parts, Fractions of Different Wholes, and Area - 1 Day

5-2 Representing Fractions - 1 Day

5-3 Equivalent Fractions - 2 Days

7-4 Fraction Strips - 2 Days

7-5 Fractions on a Number Line, Part 1 - 1 Day

7-6 Fractions on a Number Line, Part 2 - 1 Day

7-7 Comparing Fractions - 2 Days

7-8 Finding Rules for Comparing Fractions (Open Response) - 2 Days

7-9 Locating Fractions on a Number Line - 1 Day

7-10 Justifying Fraction Comparisons - 1 Day

7-11 Fractions in Number Stories - 2 Days

7-12 Fractions of Collections - 2 Days

Review - 1 Day

Test - 1 Day

Correct and Reflect - 1 Day

Unit Overview

In this unit, students will be able to:

- relate their part-whole understanding of fractions to visual and symboic representations including standard notation
- begin to explore fraction equivalence
- develop an understanding of fractions as numbers
- explore new area fraction model
- see fractions as representations of distances on number lines.

Enduring Understandings

By the End of Unit 5, expect children to:

- identify and represent given unit (1/b) and non-unit (a/b) fractions using pictures, words, and fraction circles

By the End of Unit 7, expect children to:

- identify and represent unit (1/b) and non-unit (a/b) fractions, when the whole is not a collection, using fraction tools and standard notation.
- understand a fractions as a number on a number line and to use tools to represent and locate fractions on a number line
- use fraction tools to generate two equivalent fractions, compare two fractions with the same numerator or the same denominator, and express whole numbers as fractions.
- partition shapes into parts with equal area. express the area of each part as a unit fraction of the whole.

Essential Questions

5.1 - What do different wholes look like? How can you show fractions as equal parts of different wholes?

5.2 - How can you represent fractions using pictures and words?

5.3 - What are equivalent fractions? What strategies and/or tools can you use to find equivalent fractions?

7.4 - What happens when you fold and partition halves, fourths, and eighths fraction strips? What is a unit fraction? What labels to unit fractions have?

7.5 - How can you use a number line to help you label fractions?

7.6 - What strategies can you use to label a number line with fractions?

7.7 - How can visual models help you compare fractions?

7.8 - What rules can you develop for comparing fractions?

7.9 - How can you divide a number line equally to show various fractions?

7.10 - How can you justify fraction comparisons?

7.11 - What strategies can you use to solve fraction number stories?

7.12 - How are fractions of a collection solved? How can pictures help you solve these problems?

New Jersey Student Learning Standards (No CCS)

MA.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 $1/b$.
MA.3.NF.A.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.
MA.3.NF.A.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

Amistad Integration

Amistad Integration Document

The Girl With a Mind for Math: The Story of Raye Montague by Julia Finley Mosca

Holocaust/Genocide Education

- Teach district mandated diversity lessons
- Incorporate Responsive Classroom Program into classroom community

Interdisciplinary Connections

LA.RL.3.1	Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
LA.W.3.1.A	Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
LA.W.3.1.B	Provide reasons that support the opinion.
LA.W.3.1.C	Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
LA.W.3.1.D	Provide a conclusion.

Technology Standards

TECH.8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
TECH.8.1.5.A.5	Create and use a database to answer basic questions.
TECH.8.1.5.A.CS1	Understand and use technology systems
TECH.8.1.5.A.CS2	Select and use applications effectively and productively.

21st Century Themes/Careers

CAEP.9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Financial Literacy Integration

9.1.4.B.1 Differentiate between financial wants and needs.

9.1.4.B.2 Identify age-appropriate financial goals.

9.1.4.B.3 Explain what a budget is and why it is important.

9.1.4.B.4 Identify common household expense categories and sources of income.

9.1.4.B.5 Identify ways to earn and save.

9.1.4.C.1 Explain why people borrow money and the relationship between credit and debt.

9.1.4.C.2 Identify common sources of credit (e.g., banks, credit card companies) and types of credit (e.g.,

loans, credit cards, mortgages).

9.1.4.C.3 Compare and contrast credit cards and debit cards and the advantages and disadvantages of using each.

9.1.4.C.4 Determine the relationships among income, expenses, and interest.

9.1.4.C.5 Determine personal responsibility related to borrowing and lending.

9.1.4.C.6 Summarize ways to avoid credit problems.

9.1.4.D.1 Determine various ways to save.

9.1.4.D.2 Explain what it means to “invest.”

9.1.4.D.3 Distinguish between saving and investing.

9.1.4.E.1 Determine factors that influence consumer decisions related to money.

9.1.4.E.2 Apply comparison shopping skills to purchasing decisions.

9.1.4.F.1 Demonstrate an understanding of individual financial obligations and community financial obligations.

9.1.4.F.2 Explain the roles of philanthropy, volunteer service, and charitable contributions, and analyze their impact on community development and quality of living.

9.1.4.G.1 Describe how valuable items might be damaged or lost and ways to protect them.

Instructional Strategies & Learning Activities

Instructional Strategies

- Fraction Quick Look Cards
- Fraction Circles
- Pattern-Block Templates
- Class Number Line
- Ruler

Learning Activities

- 7-2 and 7-5 Fraction Memory
- 7-7,7-9, and 7-10 - Fraction Top-It

Differentiated Instruction

- See Teacher's Manual p. 445, 451, 459, 653, 659, 665, 673, 689, 695, 701, 707
- Use Data from Tech-Exit Tickets, Exit Slips, and Progress Monitoring to group students for each skill
- Student "May Do" Activities
- Sentence and Discussion Stems - Especially for Open Response
- Visual Anchor Charts for current, previous, and next lessons
- Interactive Notebook
- Hands On Learning/Activities

- Curriculum Mapping
- Inquiry/Problem-Based Learning
- Learning preferences integration (visual, auditory, kinesthetic)
- Sentence & Discussion Stems
- Tiered Learning Targets
- Learning Through Play
- Meaningful Student Voice & Choice
- Relationship-Building & Team-Building
- Self-Directed Learning
- Choice Boards
- The Hot Seat/Role-Play
- Student Data Inventories
- Mastery Learning (feedback toward goal)
- Goal-Setting & Learning Contracts
- Game-Based Learning
- Grouping
- Genius Hour
- Rubrics
- Learning Menus
- Jigsaws
- Learning Through Workstations
- Concept Attainment
- Flipped Classroom
- Mentoring
- Assessment Design & Backwards Planning
- Student Interest & Inventory Data

Formative Assessments

Unit 5 Tech-Exit Tickets

Unit 7 Tech-Exit Tickets

Summative Assessment

Unit 5/7 Progress Check - See Everyday Math Online Resources or Assessment Handbook

**See Haddonfield 3rd Grade Google Drive for Recreated Assessment*

Benchmark Assessments

Teachers may use:

~EDM4 Beginning of the Year Assessment (To create initial groupings based on EDM4 skills)

~EDM4 EOY Assessment (for SGO---to show year long growth at EOY)

~Fall Link It Form A (To create strategy groups based on specific skills and standards)

Alternate Assessments

Progress Monitoring by Standard on Link-It

Resources & Technology

Haddonfield Third Grade Google Drive

IXL

Third Grade W - Understanding Fractions

Third Grade X - Equivalent Fractions

Third Grade Y - Comparing Fractions

Third Grade Z - Operations with Fractions

BOE Approved Texts

Closure

See Exit Tickets Above

- Gallery Walk - On chart paper, small groups of students write and draw what they learned. After the completed works are attached to the classroom walls, others students affix post-its to the posters to extend on the ideas, add questions.
- Low-Stakes Quizzes - Give a short quiz using technologies like Kahoot or a Google form.
- Have students write down three quiz questions (to ask at the beginning of the next class).
- Question Stems - Have students write questions about the lesson on cards, using question stems framed around Bloom's Taxonomy. Have students exchange cards and answer the question they have acquired.
- Kids answer the following prompts: "What takeaways from the lesson will be important to know three years from now? Why?
- Have students dramatize a real-life application of a skill.
- Have kids orally describe a concept, procedure, or skill in terms so simple that a child in first grade would get it.
- Direct kids to raise their hands if they can answer your questions. Classmates agree (thumbs up) or disagree (thumbs down) with the response.
- Have kids create a cheat sheet of information that would be useful for a quiz on the day's topic.
- Kids write notes to peers describing what they learned from them during class discussions.
- Ask students to write what they learned, and any lingering questions on an "exit ticket". Before they leave class, have them put their exit tickets in a folder or bin labeled either "Got It," "More Practice, Please," or "I Need Some Help!"
- After writing down the learning outcome, ask students to take a card, circle one of the following options, and return the card to you before they leave: "Stop (I'm totally confused. Go (I'm ready to move on.)" or "Proceed with caution (I could use some clarification on . . .)"

ELL

- Alternate Responses
- Advance Notes
- Extended Time
- Teacher Modeling
- Simplified Written and Verbal Instructions
- Frequent Breaks
- E-Dictionaires
- Google Translate

Special Education

- Shorten assignments to focus on mastery of key concepts.
- Evaluate the classroom structure against the student's needs (flexible structure, firm limits, etc.).
- Keep workspaces clear of unrelated materials.
- Keep the classroom quiet during intense learning times.
- Provide a computer for written work.
- Seat the student close to the teacher or a positive role model.
- Provide an unobstructed view of the chalkboard, teacher, movie screen, etc.
- Give directions in small steps and in as few words as possible.
- Number and sequence the steps in a task.
- Have student repeat the directions for a task.
- Provide visual aids.
- Go over directions orally.
- Provide a vocabulary list with definitions.
- Permit as much time as needed to finish tests.
- Allow tests to be taken in a room with few distractions (e.g., the library).
- Have test materials read to the student, and allow oral responses.
- Divide tests into small sections of similar questions or problems.
- Allow the student to complete an independent project as an alternative test.
- Show a model of the end product of directions (e.g., a completed math problem or finished quiz).
- Stand near the student when giving directions or presenting a lesson.
- Mark the correct answers rather than the incorrect ones.
- Permit a student to rework missed problems for a better grade.

504

- preferential seating
- extended time on tests and assignments
- reduced homework or classwork
- verbal, visual, or technology aids
- modified textbooks or audio-video materials
- behavior management support
- adjusted class schedules or grading
- verbal testing
- excused lateness, absence, or missed classwork
- pre-approved nurse's office visits and accompaniment to visits
- occupational or physical therapy

At Risk

- Use of mnemonics
- Have student restate information
- Provision of notes or outlines

- Concrete examples
- Assistance in maintaining uncluttered space
- Weekly home-school communication tools (notebook, daily log, phone calls or email messages)
- Lab and math sheets with highlighted instructions
- Graph paper to assist in organizing or lining up math problems
- Use of manipulatives
- No penalty for spelling errors or sloppy handwriting
- Follow a routine/schedule
- Teach time management skills
- Verbal and visual cues regarding directions and staying on task
- Adjusted assignment timelines
- Visual daily schedule
- Immediate feedback
- Work-in-progress check
- Pace long-term projects
- Preview test procedures
- Film or video supplements in place of reading text
- Pass/no pass option
- Cue/model expected behavior
- Use de-escalating strategies
- Use peer supports and mentoring
- Have parent sign homework/behavior chart
- Chart progress and maintain data

Gifted and Talented

- Offer the Most Difficult First
- Pretest for Volunteers
- Offer choice
- Speak to Student Interests
- Allow G/T students to work together
- Tiered learning
- Focus on effort and practice
- Encourage risk taking