



Grade 3

Math Curriculum

Oradell Public School District

Oradell, NJ

2023

The Grade 3 Math Curriculum was developed by the Oradell Math Curriculum Team and aligned with the New Jersey Student Learning Standards (NJSLS).

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Revised: July 2022

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Oradell Public School District

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Board Policy

This revision is aligned with the New Jersey Student Learning Standards for Mathematics, the New Jersey Student Learning Standards for Computer Science and Design Thinking, the New Jersey

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Student Learning Standards for Career Readiness, Life Literacies, and Key Skills, and the inclusion of connections to Social-Emotional Learning Competencies.

Affirmative Action

During the development of this course of study, particular attention was paid to the elimination or exclusion of any materials which might discriminate on the basis of race, color, national origin, ancestry, age, sex, affectional or sexual orientation, gender identity or expression, marital status, familial status, genetic information, mental or physical disabilities, or in educational opportunities. Every effort has been made to uphold both the letter and spirit of Affirmative Action mandates as applied to the content, the texts and the instruction inherent in this course.

Introduction to Teaching Mathematics

For more than a decade, research studies of mathematics education in high-performing countries have concluded that mathematics education in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country. To deliver on this promise, the New Jersey Student Learning Standards (NJSLS) in Mathematics were designed to address the problem of a curriculum that is “a mile wide and an inch deep (Common Core State Standards Initiative, 2019).”

The new standards build on the best of high-quality math standards from states across the country. They also draw on the most important international models for mathematical practice, as well as research and input from numerous sources, including state departments of education, scholars, assessment developers, professional organizations, educators, parents and students, and members of the public.

The math standards provide clarity and specificity rather than broad general statements. They follow a design that not only stresses conceptual understanding of key ideas but also the organizing principles such as place value and the laws of arithmetic to structure those ideas.

In addition, the sequence of topics and performances outlined in the body of math standards respects what is known about how students learn, namely, that developing sequenced obstacles and challenges for students, absent from the insights about meaning that derive from careful study, is unwise. Therefore, the development of the standards began with research-based learning progressions detailing what is known today about how students’ mathematical knowledge, skill, and understanding develop over time. The knowledge and skills students need to be prepared for mathematics in college, career, and life are woven throughout the mathematics standards.

These standards define what students should understand and be able to do in their study of mathematics. Additionally, this curriculum is written around the Standards for Mathematical Practice. These standards describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in

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mathematics education. The first of these are the NCTM process standards of problem-solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

Teachers are required to assess understanding by asking the student to justify, in a way that is appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. Mathematical understanding and procedural skill are equally important, and both are assessed by using mathematical tasks of sufficient richness. The assessments contained in this curriculum document reflect the level of rigor represented in the state-level assessments and the NJ state Model Curriculum for Math. They serve as guideposts for teachers in determining the level of preparedness students need to reach. This curriculum document will continue to evolve as teachers plan their lessons and gather more resources to teach the units.

All About the Mathematics Curriculum

How was the curriculum developed?

The Oradell Public School District's curriculum consists of units that have been inspired by the New Jersey Student Learning Standards — Mathematics. The main professional resource teachers use is *Go Math!* by Houghton Mifflin Harcourt Publishing Company. Teachers are encouraged to collaborate to create additional lessons and formative assessments for the whole group, small-group, and individual conferences.

Each unit contains enduring understandings and essential questions with corresponding teaching points. Enduring understandings are statements summarizing important ideas and core processes that are central to math and have lasting value beyond the classroom. They synthesize what students should understand—not just know or do—as a result of studying a particular unit. Moreover, they articulate what students should “revisit” over the course of their lifetimes in relationship to the content area. Essential questions are broad questions with many answers. They encourage transfer beyond the specific skill or topic students are studying and should recur over many years to promote curriculum coherence and real-world connections. In math, a teaching point addresses both the skill and strategy that will be practiced in a given math class. The teaching points in the math curriculum are meant to build student skills over the unit and are chosen based on the assessment of combined skills.

Modifications

The modifications section at the end of each bend is meant to help guide the differentiation of the units for students with IEPs, Multilingual Learners, Tier 2 At-Risk students (students in Basic Skills) and Gifted and Talented students. Carol Ann Tomlinson defines differentiation as tailoring instruction to meet individual needs. Whether teachers differentiate content, process, products, or the learning environment, the use of ongoing assessment and flexible grouping makes this a successful approach to instruction. At its most basic level, differentiation consists of the efforts of teachers to respond to variance among learners in the classroom. Whenever a teacher reaches out to an individual or small group to vary his or her teaching in

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order to create the best learning experience possible, that teacher is differentiating instruction (Tomlinson, 2000).

Teachers can differentiate at least four classroom elements based on student readiness, interest, or learning profile:

1. Content: what the student needs to learn or how the student will get access to the information
2. Process: activities in which the student engages in order to make sense of, or master the content
3. Products: culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit
4. Learning environment: the way the classroom works and feels

Our Math Philosophy

We believe in a Guided Math approach to the teaching of math. We develop mathematicians to become thinkers and to develop strategies to become global citizens. We believe that students need access to real-world problems and experiences. We believe that students need time, choice, and feedback to be successful. Partnered with explicit instruction in mathematics content, a strategy-based curriculum promotes math behaviors and skills that contribute to strategic thinking, accurate problem solving and extending mathematical learning to new situations.

What is the Guided Math Framework?

To help teachers build capacity by expanding their repertoire of instructional strategies, many educational leaders may consider the implementation of Guided Math (Sammons, 2010 and 2013).

This framework offers a wide selection of instructional strategies from which teachers can choose - all of which engage students in challenging mathematical instruction. The flexibility of the framework permits teachers to adapt it to align with their own teaching styles and to meet the needs of their students. When implemented, Guided Math instruction may vary from week to week and from classroom to classroom (Sammons, 2013).

The components of a Guided Math approach are as follows:

- Math Warm-Ups
- Whole-Class Instruction
- Small-Group Instruction
- Math Workshop
- Math Conferences
- Assessment

Components Guided Math Workshop

Math Warm-Ups

While setting a mathematical tone for the day, Math Warm-Ups at the beginning of a day or a class period also provide valuable ongoing mathematical practice for students. Calendar board activities and Math Stretches may serve as brief Warm-Ups for students. Warm-Ups also provide opportunities for students to learn about current event connections to mathematics and to assume classroom responsibilities that

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reinforce mathematical skills.

Whole-Class Instruction

This more traditional instructional mode is an option for teachers to deliver mini lessons, conduct math-related read-alouds, and model mathematical thinking. Whole-Class Instruction is also valuable for Math Huddle discussions as follow-ups to Math Stretch tasks. Additionally, this format can be used for review, class mathematical games, and activating strategies. Working together in these ways is important in establishing a sense of mathematical community.

Small-Group Instruction

At the heart of the framework is Small-Group Instruction with groups in which the composition is fluid and based upon previously identified, specific instructional needs. These Small-Group lessons allow teachers to more easily differentiate instruction and to help students develop proficiency in the mathematical practices as described by the New Jersey State Learning Standards for Mathematics.

In addition, the intimate nature of Small-Group lessons enables teachers to maximize student engagement (both hands-on and minds-on), to conduct ongoing informal formative assessment, and to closely monitor understanding while students are working. Because teachers are able to respond immediately when misconceptions are observed or move forward with greater challenges when understanding is evident, instruction is more efficient than traditional whole-class lessons. In spite of the fact that these lessons are usually much shorter in duration, greater student understanding of concepts and skills is achieved.

Math Workshop

During Math Workshop, students work independently on math workstation tasks that provide practice of previously mastered concepts and skills, promote computational fluency, or challenge students to engage in mathematical investigations. Playing math games is a common component of Math Workshop, but not the only option. Paper and pencil tasks may be included, as well as tasks that require documenting mathematical thinking in math journals. Students learn to assume responsibility for working independently during Math Workshop. This allows teachers to teach small-group lessons and conduct conferences with individual students.

Math Conferences

These one-on-one conversations between a teacher and a student are important assessment and teaching tools. Students explain their mathematical thinking related to the work at hand while teachers ask clarifying questions, assess student understanding, and determine the students' next steps in learning. Specific, targeted, and brief teaching points are delivered during these conversations. Students practice mathematical communication skills as they are encouraged to self-assess their progress toward their own mathematical learning goals.

Assessment

Essential to the Guided Math framework is balanced and timely assessment, especially formative assessment. Knowing students' learning needs allows teachers to plan lessons so that students receive "just right" instruction. That may require instruction that fills gaps in knowledge and skills for some students or provides additional challenges for others. Only by knowing specific needs when learning is occurring can teachers maximize their effectiveness.

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Suggested Pacing Guide for Math Grade 3

Unit	Approximate Months	Unit	Skills
1	2 Months Sept-Oct	Whole Number Operations- Addition/Subtraction	Addition and Subtraction Within 1,000 Represent and Interpret Data
2	2 Months Nov-Dec	Whole Number Operations- Multiplication	Understand Multiplication, Multiplication Facts and Strategies, Use Multiplication Facts
3	1 Month January	Whole Number Operations- Division	Understand Division, Division Facts and Strategies
4	2 Months Feb-March	Fractions	Understanding Fractions, Compare Fractions,
5	1.5 Months April-May	Measurement	Time, Length, Liquid Volume, Mass, Perimeter, Area
6	1 Month May-June	Geometry	Perimeter and Area

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3rd Grade Math Curriculum

Unit 1: Whole Number Operations- Addition/Subtraction

Refer to Go Math! Chapters 1-2

Unit Overview

In this unit, students will add and subtract whole numbers within 1,000 and decide if an answer is reasonable. Exploring number patterns helps students develop algebraic thinking skills. Identifying and describing number patterns are important skills that prepare students for the study of functions in later grades.

They will also use and interpret data. There are two stages in working with data. The first stage focuses on the data—what to collect and how to collect it. The second stage is representation—how to best represent the data collected.

Enduring Understandings

- Compatible numbers and rounding help to estimate sums
- Various patterns and strategies work to add/subtract numbers to 1,000
- Understanding various patterns and strategies increases number sense
- Reading and interpreting data allows us to compare and contrast mathematical ideas and make mathematical conclusions

Essential Questions

- How does understanding place value allow you to compare, add, subtract, and estimate with whole numbers?
- How does rounding, estimation, and using compatible numbers help us understand math and the world around us?
- What do patterns teach us about addition and subtraction? About data?
- How does using data help us make sense of the real world?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferring• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports
Summative Assessments

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- Chapter Quizzes & Tests
- Student Self-Reflection by Chapter
- Chapter Performance Tasks (as appropriate)
- Online Math Activity Scores

Benchmark Assessments

- LinkIt! Form A

Alternative Assessments

- Modified Unit Assessment

Standards (NJSLs) Addressed in this Unit

Operations and Algebraic Thinking 3.OA

D. Solve problems involving the four operations, and identify and explain patterns in arithmetic.

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
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. Use place value understanding and properties of operations to perform multi-digit arithmetic.

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
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.

Measurement and Data 3.MD

B. Represent and interpret data.

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.
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.

Computer Science and Design Thinking

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

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8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Career Readiness, Life Literacies, and Key Skills

CAREER AWARENESS, EXPLORATION, PREPARATION, AND TRAINING

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

PRACTICES

- **CLKSP4** Demonstrate creativity and innovation.
- **CLKSP5** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CLKSP8** Use technology to enhance productivity, increase collaboration, and communicate effectively.

Interdisciplinary Connections:

English Language Arts

Reading

- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.4** Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Writing

- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- **W.3.8** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking & Listening

- **SL.3.1.B** Follow agreed-upon rules 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.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Standards for Mathematical Practice

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments & critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

Unit 1: Addition and Subtraction Within 1,000 and Represent and Interpret Data

Addition and Subtraction Within 1,000

Students will...

- Identify and describe whole-number patterns and solve problems.
- Round 2- and 3-digit numbers to the nearest ten or hundred.
- Use compatible numbers and rounding to estimate sums.
- Count by tens and ones, use a number line, make compatible numbers, or use friendly numbers to find sums mentally.
- Use the Commutative and Associative Properties of Addition to add more than two addends.
- Use the break apart strategy to add 3-digit numbers.
- Use place value to add 3-digit numbers.
- Use compatible numbers and rounding to estimate differences.
- Use a number line, friendly numbers, or the break apart strategy to find differences mentally.
- Use place value to subtract 3-digit numbers.
- Use the combine place values strategy to subtract 3-digit numbers.
- Solve addition and subtraction problems by using the strategy draw a diagram.

Use and Interpret Data

Students will...

- Organize data in tables and solve problems using the strategy make a table.
- Read and interpret data in a scaled picture graph.
- Draw a scaled picture graph to show data in a table.
- Read and interpret data in a scaled bar graph.
- Draw a scaled bar graph to show data in a table or picture graph.
- Solve one- and two-step compare problems using data represented in scaled bar graphs.
- Read and interpret data in a line plot and use data to make a line plot.

Unit Specific Vocabulary

Associative Property of Addition
Commutative Property of Addition
Identity Property of Addition
pattern
even
odd
round
compatible numbers
estimate
regroup
frequency table
data

tally table
key
picture graph
experiment
survey
bar graph
horizontal bar graph
scale
vertical bar graph
skip count
line plot

Suggested Modifications and Accommodations

These strategies can be adapted to scaffold for students needing more support or extend the learning for higher level students. Differentiation is accomplished through content, process, product, and learning environment.

Instructional Materials and Learning Activities

Core Instructional Materials:

- *Go Math 3* © 2015 - Houghton Mifflin Harcourt
 - Teacher Edition, Student Workbooks, Unit Assessments, Student Reference Book, Activity Cards, Blackline Masters

Supplemental Materials:

- Bridges in Mathematics for intervention
- Digital Resources:
 - *Think Central*® Digital (<https://www-k6.thinkcentral.com>)
 - ebooks, eToolkit, eTeacher's Manual, eStudent Books, online resources
 - Online Practice Assignments (Includes but not limited to: IXL, Xtra Math, DreamBox)
 - [Grade 3 - eGlossary](#)
 - Bridges in Mathematics (<https://bridges.mathlearningcenter.org/>) for intervention
 - [Introduction to Place Value - Khan Academy](#)
 - [Distributive Property - Brainpop](#)
 - [Associative Property - Brainpop](#)
 - [Commutative Property - Brainpop](#)
 - [Expanded Form - Khan Academy](#)
 - [Rounding - Brainpop](#)

Special Education Students

- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
- Ask students to recall what they have already learned in ways that activate prior knowledge and build on that knowledge.
- Model problem-solving processes.
- Model productive and engaging partner talk.
- Provide direct instruction and/or think aloud for clarity.
- Build and/or use anchor charts with students and continually refer to them while teaching.
- Provide opportunities for students to turn and talk.
- Use modeling and manipulatives.
- Provide graphic organizers and graph paper.
- Use step-by-step how-to sheets to guide student problem-solving.
- Refer to student IEP goals and modifications.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Provide frequent breaks.
- Use a problem [solving plan](#) to organize mathematical thinking.
- Incorporate [place value charts](#) into small group lessons.

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- [Introduction to Place Value - Khan Academy](#)
- [Distributive Property - Brainpop](#)
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- [Commutative Property - Brainpop](#)
- [Expanded Form - Khan Academy](#)
- [Rounding - Brainpop](#)

Students at Risk

- Use the reteach component of Go Math! lesson in small group settings.
- Shorten assignments.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Provide immediate feedback
- Teach with multiple examples
- Model productive and engaging partner talk.
- Allow for extended time.
- Use of Bridges Math Intervention with particular students.
- Provide guided notes as necessary.
- Allow students to orally construct their response.
- Provide frequent breaks.
- Utilize Lesson Check pages for quick comprehension checks at the beginning or end of lessons.
- [Introduction to Place Value - Khan Academy](#)
- [Distributive Property - Brainpop](#)
- [Associative Property - Brainpop](#)
- [Commutative Property - Brainpop](#)
- [Expanded Form - Khan Academy](#)
- [Rounding - Brainpop](#)

Multilingual Learners

- [Grade 3 - eGlossary](#)
- Allow use of a bilingual dictionary.
- Allow use of handheld translator.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Describe their strategies, steps, and solutions aloud
- Model productive and engaging partner talk. Utilize Think-Pair-Share structure.
- Allow for extended time.
- Check for understanding frequently.
- Provide guided notes as necessary.
- Utilize games to reinforce content.
- Cut out and use vocabulary flashcards specific to unit in Go Math book

Gifted and Talented

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- Provide opportunities to lead the discussion.
- Use flexible grouping.
- *Enrichment* activities
- Enrichment Activity Cards
- Have children use a number grid to find the differences between pairs of 3-digit numbers. Then have children record their work.
- Challenge/higher level questioning
- Use projects, such as the Real World and STEM projects from Go Math!

Students with 504 Plans

- *Extra Practice* activities
- Use of manipulatives, counters, number grid, and vocabulary picture cards
- Preferential Seating
- Monitor On-Task Performance
- Establish and maintain eye contact when giving oral directions
- Directions repeated and/or clarified
- Provide copy of class notes
- Reduce the number of problems by providing choice
- Modify assessments
- Give alternate methods to solve problems
- Utilize white boards for quick comprehension checks

Social-Emotional Learning Competencies

- **Self-Awareness**: ability to recognize one's emotions and know one's strengths and limitations
 - Connections:
 - Reflecting on one's learning (Oral, Thumbs Up, Thumbs Down, Pictures, etc.)
- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
 - Connections:
 - Visit the mindfulness/cool down corner in the classroom for self-soothing activities (Squishy ball, sand timer, fidget popper, etc.)
- **Social Awareness**: ability to take the perspective of others, demonstrate empathy, acknowledge and appreciate similarities and differences, and understand how one's actions influence and are influenced by others
 - Connections:
 - Students collaborate and help each other during math centers
- **Relationship Skills**: refers to one's ability to demonstrate prosocial skills and behaviors in order to develop meaningful relationships and resolve interpersonal conflicts

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- Connections:
 - Class discussions
 - Incentives for individual students and small groups
- **Responsible Decision-Making:** refers to the ability to use multiple pieces of information to make ethical and responsible decisions
 - Connections:
 - Class rules and routines
 - Class discussions
 - Following directions for math centers

3rd Grade Math Curriculum

Unit 2: Whole Number Operations- Multiplication

Refer to Go Math! Chapters 3-5

Unit Overview

In this unit, students will be introduced to whole number multiplication. Like they do with addition and subtraction, students will begin multiplication with modeling the action of the problem. As the unit progresses, students move from direct modeling strategies to more efficient strategies based on counting, addition and subtraction, and derivations of products they know. Students make sense of multiplication as finding the total number of objects in all. They use drawings to combine equal groups, skip count on a number line, draw diagrams, and use arrays. As students solve multiplication problems presented in context, they make sense of the meanings of factors and products

Enduring Understandings

- Multiplication is repeated addition and can be used to solve story problems.
- For a given set of numbers, there are relationships that are always true called properties.
- Multiplication is used in solving problems in which a new value is produced from one or more values

Essential Questions

- How does understanding multiplication help us make sense of the world around us?
- What strategies aid in mastering multiplication facts?
- What are the different strategies of multiplication?
- How can you use multiplication to find how many in all?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferring• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports
Summative Assessments
<ul style="list-style-type: none">• Chapter Quizzes & Tests• Student Self-Reflection by Chapter• Chapter Performance Tasks (as appropriate)• Online Math Activity Scores
Alternative Assessments
<ul style="list-style-type: none">• Modified Unit Assessment

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Standards (NJSLs) Addressed in this Unit

Operations and Algebraic Thinking 3.OA

A. Represent and solve problems involving multiplication and division.

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. 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.

B. Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide.2 Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)

C. Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

D. Solve problems involving the four operations, and identify and explain patterns in arithmetic.

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.
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.

Computer Science and Design Thinking

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Career Readiness, Life Literacies, and Key Skills

CAREER AWARENESS, EXPLORATION, PREPARATION, AND TRAINING

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

PRACTICES

- **CLKSP4** Demonstrate creativity and innovation.
- **CLKSP5** Utilize critical thinking to make sense of problems and persevere in solving them.

- **CLKSP8** Use technology to enhance productivity, increase collaboration, and communicate effectively.

Interdisciplinary Connections:

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- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.4** Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Writing

- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
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Standards for Mathematical Practice

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

Unit 2: Whole Number Operations-Multiplication

Understand Multiplication

Students will...

- Skip count objects by creating equal groups.
- Write an addition sentence and a multiplication sentence by using a model.
- Skip count to find how many there are by using a number line.
- Solve one- and two-step problems by using the strategy draw a diagram.
- Model products and factors by using arrays.
- Find products by using the Commutative Property of Multiplication.
- Model multiplication by using the factors 1 and 0.

Multiplication Facts and Strategies

Students will...

- Draw a picture, count by 2s, or use doubles to multiply with the factors 2 and 4.
- Use skip counting, a number line, or a bar model to multiply with the factors 5 and 10.
- Draw a picture, use 5s facts and addition, doubles, or a multiplication table to multiply with the factors 3 and 6.
- Use the Distributive Property to find products by breaking apart arrays.
- Use the Commutative or Distributive Property or known facts to multiply with the factor 7.
- Use the Associative Property of Multiplication to multiply with three factors.
- Identify and explain patterns on the multiplication table.
- Use doubles, a number line, or the Associative Property of Multiplication to multiply with the factor 8.
- Use the Distributive Property with addition or subtraction or patterns to multiply with the factor 9.
- Solve multiplication problems by using the strategy make a table.

Use Multiplication Facts

Students will...

- Identify and describe a number pattern shown in a function table.
- Use an array or a multiplication table to find an unknown factor.
- Solve multiplication problems by using the strategy draw a diagram.
- Use base-ten blocks, a number line, or place value to multiply with multiples of 10.
- Model and record multiplication with multiples of 10.

Unit Specific Vocabulary

Commutative Property of Multiplication
Associative Property of Multiplication
Identity Property of Multiplication
Zero Property of Multiplication
Distributive Property
factor
multiply
product
array
factor
equation

equal groups
multiple
addend
sum
even
odd
subtraction
pattern
multiple
place value
hundreds, tens, ones

Suggested Modifications and Accommodations

These strategies can be adapted to scaffold for students needing more support or extend the learning for higher level students. Differentiation is accomplished through content, process, product, and learning environment.

Instructional Materials and Learning Activities

Core Instructional Materials:

- *Go Math 3* © 2015 - Houghton Mifflin Harcourt
 - Teacher Edition, Student Workbooks, Unit Assessments, Student Reference Book, Activity Cards, Blackline Masters

Supplemental Materials:

- Bridges in Mathematics for intervention
- Digital Resources:
 - *Think Central*® Digital (<https://www-k6.thinkcentral.com>)
 - ebooks, eToolkit, eTeacher's Manual, eStudent Books, online resources
 - Online Practice Assignments (Includes but not limited to: Xtra Math, DreamBox)
 - [Grade 3 - eGlossary](#)
 - Bridges in Mathematics (<https://bridges.mathlearningcenter.org/>) for intervention
 - [Multiplication- BrainPop](#)
 - [Distributive Property-BrainPop](#)
 - [Associative Property-BrainPop](#)
 - [Commutative Property - BrainPop](#)
 - [Multiplying by 0 and 1-BrainPop](#)
 - [Arrays- BrainPop](#)
 - [Making Equal Groups- BrainPop](#)
 - [Intro to Multiplication - Khan Academy](#)

Special Education Students

- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
- Ask students to recall what they have already learned in ways that activate prior knowledge and build on that knowledge.
- Model problem-solving processes.
- Model productive and engaging partner talk.
- Provide direct instruction and/or think aloud for clarity.
- Build and/or use anchor charts with students and continually refer to them while teaching.
- Provide opportunities for students to turn and talk.
- Use modeling and manipulatives.
- Provide graphic organizers and graph paper.
- Use step-by-step how-to sheets to guide student problem-solving.
- Refer to student IEP goals and modifications.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.

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- Provide frequent breaks.
- Use problem-solving board to organize mathematical thinking.

Students at Risk

- Use the reteach component of Go Math! lesson in small group settings.
- Shorten assignments.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Allow student to orally construct their response.
- Use of Bridges Math Intervention with particular students.
- Provide frequent breaks.
- Utilize Lesson Check pages for quick comprehension checks at the beginning or end of lessons.
- [Multiplication- BrainPop](#)
- [Distributive Property-BrainPop](#)
- [Associative Property-BrainPop](#)
- [Commutative Property - BrainPop](#)
- [Multiplying by 0 and 1-BrainPop](#)
- [Arrays- BrainPop](#)
- [Making Equal Groups- BrainPop](#)
- [Intro to Multiplication - Khan Academy](#)

Multilingual Learners

- [Grade 3 - eGlossary](#)
- Allow use of a bilingual dictionary.
- Allow use of handheld translator.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Pair up with student who has strong skills in subject area
- Let student use their home language to solve work
- Allow for extended time.
- Provide guided notes as necessary.
- Set a writing goal for assignment and then focus only on that goal.
- Cut out and use vocabulary flashcards specific to unit in Go Math book

Gifted and Talented

- Provide opportunities to lead the discussion.
- Use flexible grouping.
- *Enrichment* activities
- Enrichment Activity Cards

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- Have children use a number grid to find the differences between pairs of 3-digit numbers. Then have children record their work.
- Challenge/higher level questioning
- Use projects, such as the Real World and STEM projects from Go Math!

Students with 504 Plans

- *Reteach* activities
- Use of manipulatives, counters, number grid, and vocabulary picture cards
- Preferential Seating
- Monitor On-Task Performance
- Establish and maintain eye contact when giving oral directions
- Directions repeated and/or clarified
- Provide copy of class notes
- Homework does not impact grade in class
- Reduce homework amount
- Modify assessments
 - Examples: given in sections & reduced questions

Social-Emotional Learning Competencies

- **Self-Awareness**: ability to recognize one's emotions and know one's strengths and limitations
 - Connections:
 - Reflecting on one's learning (Oral, Thumbs Up, Thumbs Down, Pictures, etc.)
- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
 - Connections:
 - Visit the mindfulness/cool down corner in the classroom for self-soothing activities (Squishy ball, sand timer, fidget popper, etc.)
- **Social Awareness**: ability to take the perspective of others, demonstrate empathy, acknowledge and appreciate similarities and differences, and understand how one's actions influence and are influenced by others
 - Connections:
 - Students collaborate and help each other during math centers
- **Relationship Skills**: refers to one's ability to demonstrate prosocial skills and behaviors in order to develop meaningful relationships and resolve interpersonal conflicts
 - Connections:
 - Class discussions

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- Incentives for individual students and small groups

- **Responsible Decision-Making:** refers to the ability to use multiple pieces of information to make ethical and responsible decisions

- Connections:

- Class rules and routines
 - Class discussions
 - Following directions for math centers

3rd Grade Math Curriculum

Unit 3: Whole Number Operations- Division

Refer to Go Math! Chapters 6-7

Unit Overview

In this unit, students will need to explore division problem types and contexts that support them. They solve problems with groups, arrays, and diagrams using counters and drawings. They will discover that division is represented by problem contexts where the total is known and either the number of groups or the number of objects in each group is unknown. Students will understand that division is the inverse of multiplication and students who are successful with quick recall of basic division facts tend to rely on their knowledge of basic multiplication facts

Enduring Understandings

- Division is splitting into equal parts or groups.
- Multiplication and division have inverse relationships.

Essential Questions

- How can you use division to find how many in each group or how many equal groups?
- How does knowing multiplication help you understand division?
- How does division help us solve problems?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferencing• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports
Summative Assessments
<ul style="list-style-type: none">• Chapter Quizzes & Tests• Student Self-Reflection by Chapter• Chapter Performance Tasks (as appropriate)• Online Math Activity Scores
Benchmark Assessments
<ul style="list-style-type: none">• LinkIt! Form B
Alternative Assessments
<ul style="list-style-type: none">• Modified Unit Assessment

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Standards (NJSLs) Addressed in this Unit

Operations and Algebraic Thinking 3.OA

A. Represent and solve problems involving multiplication and division.

2. Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ 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 $56 \div 8$.
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.
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 $8 \times ? = 48$, $5 = \diamond \div 3$, $6 \times 6 = ?$.

B. Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide.2 Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property.)
6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.

C. Multiply and divide within 100.

7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Computer Science and Design Thinking

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Career Readiness, Life Literacies, and Key Skills

CAREER AWARENESS, EXPLORATION, PREPARATION, AND TRAINING

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

PRACTICES

- **CLKSP4** Demonstrate creativity and innovation.
- **CLKSP5** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CLKSP8** Use technology to enhance productivity, increase collaboration, and communicate effectively.

Interdisciplinary Connections

English Language Arts

Reading

- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.4** Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Writing

- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- **W.3.8** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking & Listening

- **SL.3.1.B** Follow agreed-upon rules 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.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Standards for Mathematical Practice

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments & critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

Unit 3: Whole Number Operations-Multiplication

Understand Division

Students will...

- Solve division problems by using the strategy act it out.
- Use models to explore the meaning of partitive (sharing) division.
- Use models to explore the meaning of quotative (measurement) division.
- Model division by using equal groups and bar models.
- Use repeated subtraction and a number line to relate subtraction to division.
- Model division by using arrays.
- Use bar models and arrays to relate multiplication and division as inverse operations.
- Write related multiplication and division facts.
- Divide using the rules for 1 and 0.

Division Facts and Strategies

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Students will...

- Use models to represent division by 2.
- Use repeated subtraction, a number line, or a multiplication table to divide by 10.
- Count up by 5s, count back on a number line, or use 10s facts and doubles to divide by 5.
- Use equal groups, a number line, or a related multiplication fact to divide by 3.
- Use an array, equal groups, factors, or a related multiplication fact to divide by 4.
- Use equal groups, a related multiplication fact, or factors to divide by 6.
- Use an array, a related multiplication fact, or equal groups to divide by 7.
- Use repeated subtraction, a related multiplication fact, or a multiplication table to divide by 8.
- Use equal groups, factors, or a related multiplication fact to divide by 9.
- Solve two-step problems by using the strategy act it out.
- Perform operations in order when there are no parentheses.

Unit Specific Vocabulary

divide
equal groups
dividend
divisor
quotient
array

inverse operations
factor
related facts
product
Identity Property of Multiplication
order of operations

Suggested Modifications and Accommodations

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- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
- Ask students to recall what they have already learned in ways that activate prior knowledge and build on that knowledge.

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- Model problem-solving processes.
- Model productive and engaging partner talk.
- Provide direct instruction and/or think aloud for clarity.
- Build and/or use anchor charts with students and continually refer to them while teaching.
- Provide opportunities for students to turn and talk.
- Use modeling and manipulatives, such as counters and number lines.
- Provide graphic organizers and graph paper.
- Use step-by-step how-to sheets to guide student problem-solving.
- Refer to student IEP goals and modifications.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Provide frequent breaks.
- [Use a problem solving plan](#) to organize mathematical thinking.

Students at Risk

- Use the reteach component of Go Math! lesson in small group settings.
- Shorten assignments.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Allow student to orally construct their response.
- Use of Bridges Math Intervention with particular students.
- Provide frequent breaks.
- Utilize Lesson Check pages for quick comprehension checks at the beginning or end of lessons.
- [Division- BrainPop](#)
- [Division Practice- IXL](#)
- [Intro to Division- Khan Academy](#)
- [Division With Arrays- Khan Academy](#)

Multilingual Learners

- [Grade 3 - eGlossary](#)
- Allow use of a bilingual dictionary.
- Allow use of handheld translator.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.

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- Set a writing goal for the assignment and then focus only on that goal.
- Draw attention to connections to prior experiences and familiar concepts throughout a math lesson
- Use posters ([Multiplication/Division Strategy Posters](#)) as a visual reference
- Cut out and use vocabulary flashcards specific to unit in Go Math book

Gifted and Talented

- Provide opportunities to lead the discussion.
- Use flexible grouping.
- *Enrichment* activities
- Enrichment Activity Cards
- Challenge/higher level questioning
- Use projects, such as the Real World and STEM projects from Go Math!

Students with 504 Plans

- *Reteach* activities
- Use of manipulatives, counters, number grid, and vocabulary picture cards
- Preferential Seating
- Monitor On-Task Performance
- Establish and maintain eye contact when giving oral directions
- Directions repeated and/or clarified
- Provide copy of class notes
- Homework does not impact grade in class
- Reduce homework amount
- Modify assessments
 - Examples: given in sections & reduced questions

Social-Emotional Learning Competencies

- **Self-Awareness**: ability to recognize one's emotions and know one's strengths and limitations
 - Connections:
 - Reflecting on one's learning (Oral, Thumbs Up, Thumbs Down, Pictures, etc.)

- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
 - Connections:
 - Visit the mindfulness/cool down corner in the classroom for self-soothing activities (Squishy ball, sand timer, fidget popper, etc.)

- **Social Awareness**: ability to take the perspective of others, demonstrate empathy, acknowledge and appreciate similarities and differences, and understand how one's actions influence and are influenced by others
 - Connections:
 - Students collaborate and help each other during math centers

- **Relationship Skills**: refers to one's ability to demonstrate prosocial skills and behaviors in order to develop meaningful relationships and resolve interpersonal conflicts
 - Connections:
 - Class discussions
 - Incentives for individual students and small groups

- **Responsible Decision-Making**: refers to the ability to use multiple pieces of information to make ethical and responsible decisions
 - Connections:
 - Class rules and routines
 - Class discussions
 - Following directions for math centers

3rd Grade Math Curriculum

Unit 4: Fractions

Refer to Go Math! Chapters 8-9

Unit Overview

In this unit, students will represent fractions with models so they are using imagery to support their learning of fractions. It is important for them to understand that fractions name a quantity just like whole numbers.

The following ideas can help them develop this understanding:

- The denominator of a fraction names the number of parts in the whole, and the numerator names how many of those parts are being considered.
- It is the relationship of the numerator and denominator that defines the quantity. If the numerator is close to the denominator in value, the fraction is close to 1.

Students will use precise communication, including representing, labeling, and describing to make sure a whole is divided into equal parts.

Informal, visual, and hands-on approaches to comparing fractions set the stage for the formal algorithm. Through the examples, illustrations, and problems given, students will determine whether the fractions have like numerators or denominators in order to decide how the fractions compare.

Enduring Understandings

- A fraction describes the division of a whole (i.e. region, set, segment) into equal parts.
- Some points between whole numbers on a number line can be labeled with fractions or mixed numbers. The denominator of the fraction can be determined by counting the number of equal parts between two consecutive whole numbers.

Essential Questions

- How can you use fractions to describe how much or how many?
- How do you effectively compare fractions?
- How are equivalent fractions helpful when solving problems?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferring• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports
Summative Assessments

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- Chapter Quizzes & Tests
- Student Self-Reflection by Chapter
- Chapter Performance Tasks (as appropriate)
- Online Math Activity Scores

Alternative Assessments

- Modified Unit Assessment

Standards (NJSL) Addressed in this Unit

Number and Operations-Fractions 3.NF

A. Develop understanding of fractions as numbers.

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 $1/b$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
 - a. 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.
 - b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
 - a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
 - b. 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.
 - c. 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.
 - d. 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.

Computer Science and Design Thinking

- 8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.
- 8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.
- 8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Career Readiness, Life Literacies, and Key Skills

CAREER AWARENESS, EXPLORATION, PREPARATION, AND TRAINING

- 9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

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PRACTICES

- **CLKSP4** Demonstrate creativity and innovation.
- **CLKSP5** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CLKSP8** Use technology to enhance productivity, increase collaboration, and communicate effectively.

Interdisciplinary Connections

English Language Arts

Reading

- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.4** Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Writing

- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- **W.3.8** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking & Listening

- **SL.3.1.B** Follow agreed-upon rules 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.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Standards for Mathematical Practice

MP.1 Make sense of problems and persevere in solving them.

MP.2 Reason abstractly and quantitatively.

MP.3 Construct viable arguments & critique the reasoning of others.

MP.4 Model with mathematics.

MP.5 Use appropriate tools strategically

MP.6 Attend to precision.

MP.7 Look for and make use of structure.

MP.8 Look for and express regularity in repeated reasoning.

Unit 4: Fractions

Understand Fractions

Students will...

- Explore and identify equal parts of a whole.
- Divide models to make equal shares.
- Use a fraction to name one part of a whole that is divided into equal parts.
- Read, write, and model fractions that represent more than one part of a whole that is divided into equal parts.
- Represent and locate fractions on a number line.

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- Relate fractions and whole numbers by expressing whole numbers as fractions and recognizing fractions that are equivalent to whole numbers.
- Model, read, and write fractional parts of a group.
- Find fractional parts of a group using unit fractions.
- Solve fraction problems by using the strategy draw a diagram.

Compare Fractions

Students will...

- Solve comparison problems by using the strategy act it out.
- Compare fractions with the same denominator by using models and reasoning strategies.
- Compare fractions with the same numerator by using models and reasoning strategies.
- Compare fractions by using models and strategies involving the size of the pieces in the whole.
- Compare and order fractions by using models and reasoning strategies.
- Model equivalent fractions by folding paper, using area models, and using number lines.
- Generate equivalent fractions by using models.

Unit Specific Vocabulary

eighths
equal parts
fourths
halves
sixths
thirds
whole
fraction
unit fraction
fraction greater than 1

compare
equal to (=)
greater than (>)
less than (<)
denominator
numerator
order
equivalent
equivalent fractions

Suggested Modifications and Accommodations

These strategies can be adapted to scaffold for students needing more support or extend the learning for higher level students. Differentiation is accomplished through content, process, product, and learning environment.

Instructional Materials and Learning Activities

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- Bridges in Mathematics (<https://bridges.mathlearningcenter.org/>) for intervention

Special Education Students

- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
- Ask students to recall what they have already learned in ways that activate prior knowledge and build on that knowledge.
- Model problem-solving processes.
- Show visual representation including concrete manipulatives or sketches
- Model productive and engaging partner talk.
- Provide direct instruction and/or think aloud for clarity.
- Build and/or use anchor charts with students and continually refer to them while teaching.
- Provide opportunities for students to turn and talk.
- Use modeling and manipulatives.
- Provide graphic organizers and graph paper.
- Use step-by-step how-to sheets to guide student problem-solving.
- Refer to student IEP goals and modifications.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Provide frequent breaks.
- [Use a problem solving plan](#) to organize mathematical thinking.

Students at Risk

- Use the reteach component of Go Math! lesson in small group settings.
- Shorten assignments.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Allow student to orally construct their response.
- Use of Bridges Math Intervention with particular students.
- Provide frequent breaks.
- Provide math games for drill and practice ([Fraction Review](#))
- Utilize Lesson Check pages for quick comprehension checks at the beginning or end of lessons.
- [Fractions- BrainPop](#)
- [Fractions- BrainPop Jr](#)
- [Parts of a Whole- BrainPop Jr](#)
- [Equivalent Fractions- BrainPop Jr](#)
- [Intro to Fractions- Khan Academy](#)

Multilingual Learners

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- [Grade 3 - eGlossary](#)
- Allow use of a bilingual dictionary.
- Allow use of handheld translator.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
- Model productive and engaging partner talk.
- Allow for extended time.
- Provide guided notes as necessary.
- Set a writing goal for the assignment and then focus only on that goal.
- Use illustrations to encourage understanding
- Provide chart resources on desk/folder ([Benchmark Fractions](#))
- Present information in a variety of ways (pictures, videos ([Khan Academy- Intro to Fractions](#)), manipulatives)
- Cut out and use vocabulary flashcards specific to unit in Go Math book

Gifted and Talented

- Provide opportunities to lead the discussion.
- Use flexible grouping.
- *Enrichment* activities
- Enrichment Activity Cards
- Challenge/higher level questioning
- Create math game ([Math Game Rubric](#))
- Use projects, such as the Real World and STEM projects from Go Math!

Students with 504 Plans

- Reteach activities
- Use of manipulatives: counters, number grid, vocabulary picture cards, playdough
- Preferential Seating
- Provide concrete experiences to help learn to use fractions, such as baking, telling time
- Monitor On-Task Performance
- Establish and maintain eye contact when giving oral directions
- Directions repeated and/or clarified
- Provide copy of class notes
- Homework does not impact grade in class
- Reduce homework amount
- Modify assessments
 - Examples: given in sections & reduced questions

Social-Emotional Learning Competencies

- **Self-Awareness:** ability to recognize one's emotions and know one's strengths and

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limitations

- Connections:
 - Reflecting on one's learning (Oral, Thumbs Up, Thumbs Down, Pictures, etc.)
- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
 - Connections:
 - Visit the mindfulness/cool down corner in the classroom for self-soothing activities (Squishy ball, sand timer, fidget popper, etc.)
- **Social Awareness**: ability to take the perspective of others, demonstrate empathy, acknowledge and appreciate similarities and differences, and understand how one's actions influence and are influenced by others
 - Connections:
 - Students collaborate and help each other during math centers
- **Relationship Skills**: refers to one's ability to demonstrate prosocial skills and behaviors in order to develop meaningful relationships and resolve interpersonal conflicts
 - Connections:
 - Class discussions
 - Incentives for individual students and small groups
- **Responsible Decision-Making**: refers to the ability to use multiple pieces of information to make ethical and responsible decisions
 - Connections:
 - Class rules and routines
 - Class discussions
 - Following directions for math centers

3rd Grade Math Curriculum

Unit 5: Measurement

Refer to Go Math! Chapters 10-11

Unit Overview

In this unit, students will engage in measurement that requires students to reason abstractly and quantitatively. Each measurement attribute (e.g., time, length, mass, etc.) has its own units for obtaining and recording a quantitative measurement. Students need to evaluate measures to determine if they make sense.

Students will also explain that area is the amount of space taken up by a two-dimensional object or shape and perimeter is the distance or length around a two-dimensional object or shape. Students will use rectangles to model and solve problems involving both area and perimeter.

Enduring Understandings

- Time can be measured using different units that are related to one another.
- Capacity is a measure of the amount of liquid a container can hold.
- Mass is a measure of the quantity of matter in an object. Weight and mass are different.
- The weight of an object is a measure of how heavy an object is.
- Word problems can include capacity and weight.
- The amount of space inside a shape is its area, and area can be estimated or found using square units.
- Square units can be used to create shapes with given areas.
- Standard measurement units are used for consistency in finding and communicating measurements.

Essential Questions

- How can length of time be measured and found?
- How do the different ways of measuring help us understand the world around us?
- What are different ways to find the area of a shape?
- How is area related to the operations of multiplication and addition?
- How can visual models be used to help understand and calculate area and perimeter?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferring• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports

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Summative Assessments

- Chapter Quizzes & Tests
- Student Self-Reflection by Chapter
- Chapter Performance Tasks (as appropriate)
- Online Math Activity Scores

Alternative Assessments

- Modified Unit Assessment
- Modified Chapter Assessment

Standards (NJSL) Addressed in this Unit

Measurement and Data 3.MD

A. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

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.
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).
6 Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
7

B. Represent and interpret data.

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.

C. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
 - a. 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.
 - b. 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.
6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and nonstandard units).
7. Relate area to the operations of multiplication and addition.
 - a. 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.
 - b. 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.
 - c. 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 $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
 - d. Recognize area as an 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.

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D. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

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.

Computer Science and Design Thinking

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

Career Readiness, Life Literacies, and Key Skills

CAREER AWARENESS, EXPLORATION, PREPARATION, AND TRAINING

9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

PRACTICES

- **CLKSP4** Demonstrate creativity and innovation.
- **CLKSP5** Utilize critical thinking to make sense of problems and persevere in solving them.
- **CLKSP8** Use technology to enhance productivity, increase collaboration, and communicate effectively.

Interdisciplinary Connections

English Language Arts

Reading

- **RL.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- **RL.3.4** Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.

Writing

- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- **W.3.5** With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.
- **W.3.8** Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Speaking & Listening

- **SL.3.1.B** Follow agreed-upon rules 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.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Standards for Mathematical Practice

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

Unit 5: Measurement

Time, Length, Liquid Volume, and Mass

Students will...

- Read, write, and tell time on analog and digital clocks to the nearest minute.
- Decide when to use A.M. and P.M. when telling time to the nearest minute.
- Use a number line or an analog clock to measure time intervals in minutes.
- Use a number line or an analog clock to add or subtract time intervals to find starting times or ending times.
- Solve problems involving addition and subtraction of time intervals by using the strategy draw a diagram.
- Measure length to the nearest half or fourth inch and use measurement data to make a line plot.
- Estimate and measure liquid volume in liters.
- Estimate and measure mass in grams and kilograms.
- Add, subtract, multiply, or divide to solve problems involving liquid volumes or masses.

Perimeter and Area

Students will...

- Explore the perimeter of polygons by counting units on grid paper.
- Estimate and measure the perimeter of polygons using inch and centimeter rulers.
- Find the unknown length of a side of a polygon when you know its perimeter.
- Explore perimeter and area as attributes of polygons.
- Estimate and measure the area of plane figures by counting unit squares.
- Relate area to addition and multiplication by using area models.
- Solve area problems by using the strategy find a pattern.
- Apply the Distributive Property to area models and to find the area of combined rectangles.
- Compare areas of rectangles that have the same perimeter.
- Compare perimeters of rectangles that have the same area.

Unit Specific Vocabulary

minute
analog clock
digital clock
half hour

inch
liquid volume
liter (l)
gram (g)

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hour quarter hour a.m. p.m. midnight noon elapsed time multiplication repeated addition	kilogram (kg) mass perimeter area square unit unit square pattern Distributive Property
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Suggested Modifications and Accommodations

These strategies can be adapted to scaffold for students needing more support or extend the learning for higher level students. Differentiation is accomplished through content, process, product, and learning environment.

Instructional Materials and Learning Activities

Core Instructional Materials:

- *Go Math 3* © 2015 - Houghton Mifflin Harcourt
 - Teacher Edition, Student Workbooks, Unit Assessments, Student Reference Book, Activity Cards, Blackline Masters

Supplemental Materials:

- Bridges in Mathematics for intervention
- Digital Resources:
 - *Think Central*® Digital (<https://www-k6.thinkcentral.com>)
 - ebooks, eToolkit, eTeacher's Manual, eStudent Books, online resources
 - Online Practice Assignments (Includes but not limited to: Xtra Math, DreamBox)
 - [Grade 3 - eGlossary](#)
 - Bridges in Mathematics (<https://bridges.mathlearningcenter.org/>) for intervention
 - STEAM Integration Unit 5 - Weatherproof the Roof - Extreme Weather and Climate Change
 - [STEAM Integration Grades K-6 2022](#)

Special Education Students

- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
- Ask students to recall what they have already learned in ways that activate prior knowledge and build on that knowledge.
- Model problem-solving processes.
- Model productive and engaging partner talk.
- Provide direct instruction and/or think aloud for clarity.
- Build and/or use anchor charts with students and continually refer to them while teaching.
- Provide opportunities for students to turn and talk.
- Use modeling and manipulatives.
- Provide graphic organizers and graph paper.
- Use step-by-step how-to sheets to guide student problem-solving.
- Refer to student IEP goals and modifications.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
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- Use flexible grouping.
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- Provide frequent breaks.
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Students at Risk

- Use the reteach component of Go Math! lesson in small group settings.
- Shorten assignments.
- Ask students to recall what they already learned in ways that activate their prior knowledge.
- Use pre-assessment data to drive instruction.
- Use preferential seating.
- Use flexible grouping.
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- Allow for extended time.
- Provide guided notes as necessary.
- Allow student to orally construct their response.
- Use of Bridges Math Intervention with particular students.
- Provide frequent breaks.
- Utilize Lesson Check pages for quick comprehension checks at the beginning or end of lessons.
- [Time to the Hour-BrainPop Jr.](#)
- [Time to the Quarter and Half Hour-BrainPop Jr.](#)
- [Time to the Minute-BrainPop Jr.](#)
- [Elapsed Time-BrainPop Jr.](#)
- [Elapsed Time-BrainPop](#)
- [Grams and Kilograms-BrainPop Jr.](#)
- [Perimeter-BrainPop Jr.](#)
- [Area-BrainPop Jr.](#)

Multilingual Learners

- [Grade 3 - eGlossary](#)
- Allow use of a bilingual dictionary.
- Allow use of handheld translator.
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- Set a writing goal for the assignment and then focus only on that goal.
- Cut out and use vocabulary flashcards specific to unit in Go Math book

Gifted and Talented

- Provide opportunities to lead the discussion.

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- Use flexible grouping.
- *Enrichment* activities
- Enrichment Activity Cards
- Challenge/higher level questioning
- Use projects, such as the Real World and STEM projects from Go Math!

Students with 504 Plans

- *Reteach* activities
- Use of manipulatives, counters, number grid, and vocabulary picture cards
- Preferential Seating
- Monitor On-Task Performance
- Establish and maintain eye contact when giving oral directions
- Directions repeated and/or clarified
- Provide copy of class notes
- Use task cards ([Fraction Task Cards](#))
- Homework does not impact grade in class
- Reduce homework amount
- Modify assessments
 - Examples: given in sections & reduced questions

Social-Emotional Learning Competencies

- **Self-Awareness**: ability to recognize one's emotions and know one's strengths and limitations
 - Connections:
 - Reflecting on one's learning (Oral, Thumbs Up, Thumbs Down, Pictures, etc.)
- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
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 - Visit the mindfulness/cool down corner in the classroom for self-soothing activities (Squishy ball, sand timer, fidget popper, etc.)
- **Social Awareness**: ability to take the perspective of others, demonstrate empathy, acknowledge and appreciate similarities and differences, and understand how one's actions influence and are influenced by others
 - Connections:
 - Students collaborate and help each other during math centers
- **Relationship Skills**: refers to one's ability to demonstrate prosocial skills and behaviors in order to develop meaningful relationships and resolve interpersonal

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conflicts

- Connections:
 - Class discussions
 - Incentives for individual students and small groups

- **Responsible Decision-Making:** refers to the ability to use multiple pieces of information to make ethical and responsible decisions
 - Connections:
 - Class rules and routines
 - Class discussions
 - Following directions for math centers

3rd Grade Math Curriculum

Unit 6: Geometry

Refer to Go Math! Chapters 12

Unit Overview

In this unit, students will be asked to define and classify two-dimensional shapes based on their attributes. In doing so, they will justify their decisions and other students will agree or explain why they disagree. Students will work with concrete geometric shapes and examples in the environment which will facilitate concept development. They will use quantifiers, such as all, some, or none, to focus on the attributes of shapes. Varying drawings of shapes to display them with different spatial orientations will help students to focus on the attributes of shapes.

Enduring Understandings

- Two and three-dimensional objects with or without curved surfaces can be described, classified, and analyzed by their attributes.
- Shapes can be partitioned into parts with equal areas. Each part can be expressed as a unit fraction ($1/b$).

Essential Questions

- How can two-dimensional shapes be described, analyzed and classified? • How can equal areas of parts of a shape be expressed?

Assessments

Possible Formative Assessments
<ul style="list-style-type: none">• Teacher Observation• Student Participation• One-to-One Conferencing• Small Strategy Groups• LinkIt! Progress Reports• DreamBox Progress Reports
Summative Assessments
<ul style="list-style-type: none">• Chapter Quizzes & Tests• Student Self-Reflection by Chapter• Chapter Performance Tasks (as appropriate)• Online Math Activity Scores
Benchmark Assessments
<ul style="list-style-type: none">• LinkIt! Form C
Alternative Assessments
<ul style="list-style-type: none">• Modified Unit Assessment• Modified Chapter Assessment

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Standards (NJSL) Addressed in this Unit

Geometry 3.G.

A. Reason with shapes and their attributes.

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.
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 $\frac{1}{4}$ of the area of the shape.

Computer Science and Design Thinking

8.1.5.AP.4: Break down problems into smaller, manageable sub-problems to facilitate program development.

8.2.5.ED.2: Collaborate with peers to collect information, brainstorm to solve a problem, and evaluate all possible solutions to provide the best results with supporting sketches or models.

8.2.5.ED.3: Follow step by step directions to assemble a product or solve a problem, using appropriate tools to accomplish the task.

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- **W.3.2** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
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Unit 6: Geometry

Two Dimensional Shapes

Students will...

- Identify and describe attributes of plane shapes.
- Describe angles in plane shapes.
- Identify polygons by the number of sides they have.
- Determine if lines or line segments are intersecting, perpendicular, or parallel.
- Describe, classify, and compare quadrilaterals based on their sides and angles.
- Draw quadrilaterals.
- Describe and compare triangles based on the number of sides that have equal length and by their angles.
- Solve problems by using the strategy draw a diagram to classify plane shapes.
- Partition shapes into parts with equal areas and express the area as a unit fraction of the whole.

Unit Specific Vocabulary

Intersecting Lines	Decagon
Parallel Lines	Hexagon
Perpendicular Lines	Octagon
Closed Shape	Pentagon
Endpoint	Polygon
Line	Quadrilateral
Line Segment	Side
Open Shape	Triangle
Plane Shape	Rectangle
Point	Rhombus
Ray	Square
Two-Dimensional Shape	Trapezoid
Angle	Venn Diagram
Right Angle	Area
Vertex	Unit Fraction

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 - Online Practice Assignments (Includes but not limited to: Xtra Math, DreamBox)
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- Use various methods to understand a student's learning style, i.e.- observation, surveys, conferring.
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- Model productive and engaging partner talk.
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- Build and/or use anchor charts with students and continually refer to them while teaching.
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- [Solid Shapes \(Faces, Vertices, Edges\) -BrainPop Jr.](#)
- [Points, Lines, Segments, Rays -BrainPop Jr.](#)
- [Quadrilaterals-BrainPop Jr.](#)
- [Polygons -BrainPop Jr.](#)
- [Parallel and Perpendicular Lines -BrainPop Jr.](#)

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- Provide opportunities to lead the discussion.
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- Enrichment Activity Cards ([Geometry Task Cards](#))
- Challenge/higher level questioning
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- **Self-Management**: ability to regulate and control one's emotions and behaviors, particularly in stressful situations
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 - Connections:
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 - Incentives for individual students and small groups
- **Responsible Decision-Making**: refers to the ability to use multiple pieces of information to make ethical and responsible decisions
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 - Class discussions
 - Following directions for math centers