

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Original Adoption: Original Adoption: 2023 NJSLs English Language Arts and English as a Second Language (8-21-24); Math NJSLs Mathematics (8-21-24); 2020 NJSLs Science, Social Studies, Career Readiness, Life Literacies & Key Skills, Computer Design & Thinking, Visual & Performing Arts, World Language, Comprehensive Health and Physical Education (5-11-22)

Created By:

Recommended Pacing Guide

Unit 1: Addition and Subtraction of Fractions	24 days
Unit 2: Place Value and Decimals	28 days
Unit 3: Multiplication and Division	17 days
Unit 4: Multiplication and Division of Fractions	24 days
Unit 5: Area and Volume	13 days
Unit 6: Decimal Operations	15 days
Unit 7: Numeric Expressions	10 days
Unit 8: Geometry	15 days

Alignment with State Mandates

The following colors are used throughout this document to indicate areas in which the curriculum is aligned with the following NJSA requirements:

- **Holocaust and genocides** ([N.J.S.A. 18A:35-28](#))
- **History and contributions of African-Americans** (Amistad Law) ([N.J.S.A. 18A:35-4.43](#))
- **Highlight and promote diversity and inclusion** (Diversity & Inclusion Law) ([N.J.S.A. 18A:35-4.36a](#))
- **History of disabled and LGBT persons** included in middle and high school curriculum ([Section 18A:35-4.35](#))
- **Climate Change** - to prepare students to understand how and why climate change happens, the impact it has on our local and global communities and to act in informed and sustainable ways. Please [click here](#) for specific examples (by subject).

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Unit 1: Addition and Subtraction with the Standard Algorithm	Duration: 13 days
---	--------------------------

[New Jersey Student Learning Standards](#)

5.NF.A	Use equivalent fractions as a strategy to add and subtract fractions
5.NF.1	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.
5.NF.2	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

[New Jersey 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 and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Social Awareness	<ul style="list-style-type: none"> Recognize and identify the thoughts, feelings, and perspectives of others. Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds. Demonstrate an understanding of the need for mutual respect when viewpoints differ. Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> Develop, implement, and model effective problem-solving and critical thinking skills. Identify the consequences associated with one's actions in order to make constructive choices. Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> Establish and maintain healthy relationships. Utilize positive communication and social skills to interact effectively with others. Identify ways to resist inappropriate social pressure. Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. Identify who, when, where, or how to seek help for oneself or others when needed.

<u>Interdisciplinary Connections</u>	
ELA Standards	
L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	<p>Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies.</p> <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion
Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Career Readiness, Life Literacies & Key Skills

9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices

CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Evidence of Student Learning

<p>Formative Tasks:</p> <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> ● Oral assessments ● Istation
--	---

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● <i>Number Talks</i> ● NJSLA released items 	
Summative Assessments: <ul style="list-style-type: none"> ● Unit Assessment 	Benchmark Assessments: <ul style="list-style-type: none"> ● Istation Diagnostic ● Monthly ISIP ● Beginning of the Year Screener

Knowledge & Skills

Enduring Understandings: <ul style="list-style-type: none"> ● Equivalent fractions can be generated when we multiply/divide by a form of 1. ● Fractions must represent equal-sized parts before they can be added or subtracted. ● Equivalent fractions help create common denominators so fractions can be combined accurately. ● Models and equations help explain why fraction addition and subtraction works. ● Estimation helps determine whether fraction answers are reasonable. ● Interpreting the meaning of fractions is just as important as finding the correct answer. ● Visual models and equations help represent and solve fraction problems clearly. 	Essential Questions: <ul style="list-style-type: none"> ● How can I generate equivalent fractions? ● Why does multiplying/dividing by a form of one create an equivalent fraction? ● What strategies can I use to determine the missing numerator or denominator when given two equivalent fractions? ● How can I prove that two fractions are equivalent? ● Why do fractions need common denominators before they can be added or subtracted? ● How can equivalent fractions help me combine fractions accurately? ● How do models help me understand fraction addition and subtraction? ● How can I estimate to check if my answer makes sense? ● How can drawings, models, or equations help me explain my thinking? ● How can I rename a mixed number in order to subtract?
---	--

Content <i>Students will know...</i> <ul style="list-style-type: none"> ● Improper fractions can be rewritten as a mixed number and the value is not changed. ● Mixed numbers can be rewritten as improper fractions and the value is not changed. ● Adding fractions with like denominators means joining the parts together. ● Subtracting fractions with like denominators means removing the quantity in the second number from the quantity in the first number. 	Skills <i>Students will be able to ...</i> <ul style="list-style-type: none"> ● Rewrite improper fractions as mixed numbers by decomposing the improper fractions into whole(s) and a fractional part. ● Rewrite mixed numbers as improper fractions by rewriting each whole as a fraction with the given unit and then combine the quantities. ● Model fractions and mixed numbers with fraction circles and use the models to rewrite mixed numbers as improper fractions and improper fractions as mixed numbers.
---	---

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- | | |
|--|--|
| <ul style="list-style-type: none">• Equivalent fractions can be generated by multiplying the original fraction by a form of 1.• Fraction models can be used to confirm fraction equivalence.• Equivalent fractions can be generated by dividing the original fraction by a form of 1.• In order to add fractions with unlike denominators, we first have to find a common denominator.• In order to subtract fractions with unlike denominators, we first have to find a common denominator. | <ul style="list-style-type: none">• Determine the missing value when given two equivalent mixed numbers.• Add mixed numbers with like denominators by combining whole numbers and combining fractional parts; sometimes it will be necessary to rename the fraction.• Model the addition of mixed numbers using fraction circles.• Apply mental math strategies (getting to a whole) when adding fractions.• Subtract mixed numbers with like denominators by subtracting whole numbers and subtracting fractional parts; sometimes it will be necessary to rename before subtracting.• Model the subtraction of mixed numbers using fraction circles.• Multiply by a form of 1 to generate equivalent fractions.• Create a model to match the mathematical process for multiplying by a form of 1 to generate an equivalent fraction.• Divide by a form of 1 to generate an equivalent fraction.• When given two equivalent fractions, determine the form of 1 that can be used to prove their equivalence (includes multiplication and division).• Support fraction equivalencies with models.• Find the missing numerator or denominator when given two equivalent fractions.• Add fractions with unlike denominators.• Model the addition of fractions with unlike denominators using fraction circles.• Use multiplication to create equivalent fractions with common denominators before adding.• Add mixed numbers with unlike denominators.• Subtract fractions with unlike denominators.• Use multiplication to create equivalent fractions with common denominators before subtracting.• Subtract mixed numbers with unlike denominators. When necessary, rename mixed numbers in order to subtract. |
|--|--|

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Core Instructional & Supplemental Materials

Suggested Activities/Resources:

- Manipulatives
- Istation
- District Created Lessons (Unit 1)
- District Created Parent Resources
- Communicators
- Unit Review Jeopardy
- *Number Talks*
- NJSLA released items

Supplemental Materials

- Illustrated Mathematics
 - [5.NF.1](#)
 - [5.NF.2](#)

Suggested Accommodations

English Language Learners:

- Multi-sensory instruction
- Flexible grouping
- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities
- Manipulatives/concrete models
- Modified assignments
- Brain breaks

Economically Disadvantaged:

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cueing
- Activate schema
- Build background knowledge

Culturally Diverse:

- Create an emotionally positive classroom climate.
- Create effective communication
- Model and teach cultural respect
- Build relationships with students by interviewing students to understand their background

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Unit 2: Place Value and Decimals	Duration: 28 days
---	--------------------------

[New Jersey Student Learning Standards](#)

5.NBT.A	Understand the place value system
5.NBT.1	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.
5.NBT.2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
5.NBT.3	<p>Read, write, and compare decimals to thousandths.</p> <p>a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 3 \times \left(\frac{1}{10}\right) + 9 \times \left(\frac{1}{100}\right) + 2 \times \left(\frac{1}{1000}\right)$.</p> <p>b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>
5.NBT.4	Use place value understanding to round decimals to any place.

[New Jersey 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 and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations.
-----------------------	--

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	<ul style="list-style-type: none"> ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> ● Recognize and identify the thoughts, feelings, and perspectives of others. ● Demonstrate an awareness of the differences among individuals, groups, and others’ cultural backgrounds. ● Demonstrate an understanding of the need for mutual respect when viewpoints differ. ● Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> ● Develop, implement, and model effective problem-solving and critical thinking skills. ● Identify the consequences associated with one’s actions in order to make constructive choices. ● Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> ● Establish and maintain healthy relationships. ● Utilize positive communication and social skills to interact effectively with others. ● Identify ways to resist inappropriate social pressure. ● Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. ● Identify who, when, where, or how to seek help for oneself or others when needed.

<u>Interdisciplinary Connections</u>

ELA Standards

L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

L.VL.5.2	Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies. A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion
Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

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 & Key Skills

9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices
--

CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Evidence of Student Learning	
<p>Formative Tasks:</p> <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes ● <i>Number Talks</i> ● NJSLA released items 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> ● Oral assessments ● Istation
<p>Summative Assessments:</p> <ul style="list-style-type: none"> ● Unit Assessment 	<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> ● Monthly ISIP

Knowledge & Skills	
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● The value of a digit depends on <i>where</i> it is in the number. ● Each place value in a number is ten times the value of the place to its right. ● Understanding place value helps when working with large numbers (reading, writing, comparing) ● Expanded form is when we write a number as the sum of the value of its digits. ● Word form is when we write a number using words. ● Rounding helps us identify a benchmark that a number is close to. ● Any given number falls between two benchmark numbers. ● Rounding a number means to substitute a “nice” number that is close to the original number. ● Decimals represent parts of a whole and extend the place-value system beyond whole numbers. ● Exponents show how many times a base number is multiplied by itself. ● Powers of 10 help represent large numbers efficiently. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ● How does the position of a digit change its value? ● Why is understanding place value important when working with large numbers? ● How can I show the same number in different ways? ● How do different number forms (standard, word, expanded) help me understand a number? ● How does rounding help us understand a number’s value? ● What patterns do I notice when multiplying or dividing by powers of 10? ● How do decimals help represent parts of a whole? ● What does an exponent tell me about a number? ● How do powers of 10 help us write and understand large numbers? ● How are exponents connected to place value? ● How can I use place value to compare decimals correctly?

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Using exponents makes it easier to read, write and compare numbers. ● Place value patterns explain how powers of 10 work. ● Decimals can be read, written, and compared using place value understanding. ● Comparing decimals requires looking at the digits in the same place value. ● Rounding helps create estimates that are easier to use and understand. ● Decimals are rounded based on the value of digits to the right. 	<ul style="list-style-type: none"> ● Why is it important to compare digits in the same place value? ● Why do we round decimals, and when is it helpful? ● How do I decide which digit to look at when rounding?
<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> ● Multi-digit whole numbers and decimal numbers can be represented with place value disks. ● Ten of one place value is needed to make one of the next largest place value. ● Each digit in a number has a value, depending on its position in the number. ● A number can be written in expanded form, as the sum of the value of its digits, each multiplied by its place value. ● Word form is when we write a number using words. ● Any given number falls between two benchmark numbers. ● Rounding a number means to substitute a “nice” number that is close to the original number. ● Decimal numbers can be modeled with base-10 blocks or place value disks. ● Place value can be used to compare decimals. ● Each place value in a number is $\frac{1}{10}$ the value of the place to its left. Understand that this pattern continues indefinitely. ● Understand that a decimal number falls between two whole numbers. ● When a given number is multiplied by ten, all of the digits shift one place to the left. ● Powers of 10 can be rewritten as factors of 10. ● When a given number is divided by ten the digits shift one place to the right. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Build multi-digit numbers with place value disks. ● Identify the largest place value represented in a multi-digit number. ● Identify the place value and value of specified digits. ● Read multi-digit whole numbers. ● When given the standard form of a multi-digit whole number, write the number in expanded form. ● When given a multi-digit whole number in expanded form, write the number in standard form. ● When given the standard form of a multi-digit whole number, write the number in word form. ● When given a multi-digit whole number in word form, write the number in standard form. ● Identify the halfway point between two whole numbers and place it in its approximate location on a number line. ● Determine the surrounding benchmarks for a given whole number. ● Show your thinking about rounding on an open number line. ● Round multi-digit whole numbers to any place value. ● Use base-10 blocks to represent a given value through the hundredths. ● Read decimal numbers and record the standard form. ● When given a base-10 model, record the standard form of the number. ● Sketch a base-10 model to represent numbers through the thousandths.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	<ul style="list-style-type: none"> ● Compare decimal numbers using base-10 models. ● Compare decimal numbers by reasoning about the value of the digits in the number. ● Write decimal numbers in expanded form by first modeling them with place value disks. ● When giving the expanded form of a decimal number, write the standard form. ● Write decimal numbers in expanded form by reasoning about the value of the digits in the number. ● Compare decimals that are written in different forms. ● Identify the value of a digit in a decimal place. ● Round decimal numbers to any place value. ● Use place value disks to model multiplying by 10. ● Use a place value chart to model multiplying a number by 10. ● Find the product of a number that has been repeatedly multiplied by 10. ● Multiply a given number by a power of 10 by reasoning about how the digits shift.. ● Divide a given number by a power of 10 by reasoning about how the digits shift. ● Compare the value of the same digit in two different numbers..
--	--

Core Instructional & Supplemental Materials

<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> ● Manipulatives ● Istation ● District Created Lessons (Unit 2) ● District Created Parent Resources ● Communicators ● Unit Review Jeopardy ● <i>Number Talks</i> ● NJSLA released items 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> ● Illustrated Mathematics <ul style="list-style-type: none"> ○ 5.NBT.1 ○ 5.NBT.2 ○ 5.NBT.3 ○ 5.NBT.4 ● <i>Great Estimations</i> by Bruce Goldstone ● <i>Lucky Beans</i> by Becky Birtha ● <i>Millions, Billions, and Trillions</i> by David A. Adler
---	---

Suggested Accommodations

<p>English Language Learners:</p> <ul style="list-style-type: none"> ● Multi-sensory instruction ● Flexible grouping

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Provide visuals ● Be flexible with assignments and time frames ● Provide needed academic resources ● Chunking information ● Scaffolded questioning ● Tiered activities ● Manipulatives/concrete models ● Modified assignments ● Brain breaks <p>Economically Disadvantaged:</p> <ul style="list-style-type: none"> ● Pre-teach vocabulary using visuals and gestures ● Chunk texts ● Summarize as you go ● Preview lessons ● Graphic organizers ● Highlight key words ● Sentence starters ● Prompting and cueing ● Activate schema ● Build background knowledge <p>Culturally Diverse:</p> <ul style="list-style-type: none"> ● Create an emotionally positive classroom climate. ● Create effective communication ● Model and teach cultural respect ● Build relationships with students by interviewing students to understand their background

Unit 3: Multiplication and Division	Duration: 17 days
--	--------------------------

<u>New Jersey Student Learning Standards</u>	
5.NF.B	Apply and extend previous understandings of multiplication and division to multiply and divide fractions
5.NF.3	Interpret a fraction as division of the numerator by the denominator (i.e., $\frac{a}{b} = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
5.NBT.B	Perform operations with multi-digit whole numbers & with decimals to hundredths
5.NBT.5	With accuracy and efficiency, multiply multi-digit whole numbers using the standard algorithm.
5.NBT.6	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations,

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
--	---

<u>New Jersey Standards for Mathematical Practice</u>	
--	--

MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.
MP.3	Construct viable arguments and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies	
--	--

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> ● Recognize and identify the thoughts, feelings, and perspectives of others. ● Demonstrate an awareness of the differences among individuals, groups, and others’ cultural backgrounds. ● Demonstrate an understanding of the need for mutual respect when viewpoints differ. ● Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> ● Develop, implement, and model effective problem-solving and critical thinking skills. ● Identify the consequences associated with one’s actions in order to make constructive choices. ● Evaluate personal, ethical, safety, and civic impact of decisions.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Relationship Skills	<ul style="list-style-type: none"> ● Establish and maintain healthy relationships. ● Utilize positive communication and social skills to interact effectively with others. ● Identify ways to resist inappropriate social pressure. ● Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. ● Identify who, when, where, or how to seek help for oneself or others when needed.
----------------------------	---

Interdisciplinary Connections

ELA Standards

L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	<p>Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies.</p> <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	<p>Write informative/explanatory texts to examine a topic and convey information clearly.</p> <ul style="list-style-type: none"> D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	<p>Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p> <ul style="list-style-type: none"> A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	<p>B. Follow agreed-upon rules for discussions and carry out assigned roles.</p> <p>C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others.</p> <p>D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion</p>
--	---

Social Studies

6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.
-------------------------	---

Computer Science & Design Thinking

8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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 & Key Skills

9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Career Readiness, Life Literacies, and Key Skills Practices	
CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Evidence of Student Learning	
Formative Tasks: <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes ● <i>Number Talks</i> ● NJSLA released items 	Alternative Assessments: <ul style="list-style-type: none"> ● Oral assessments ● Istation
Summative Assessments: <ul style="list-style-type: none"> ● Unit Assessment 	Benchmark Assessments: <ul style="list-style-type: none"> ● Monthly ISIP

Knowledge & Skills	
Enduring Understandings: <ul style="list-style-type: none"> ● Place value helps break numbers apart to make multiplication easier. 	Essential Questions: <ul style="list-style-type: none"> ● How does place value help me multiply large numbers?

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> • Different strategies (such as the box method, and the partial-products algorithm) lead to the same correct product. • Division can be understood as equal sharing or grouping, • Place value strategies help divide larger numbers efficiently. • Multiplication and division are inverse operations. • A fraction can represent division of a whole number by another whole number • Fractions describe how a whole can be shared equally among groups. • Visual models and real-world contexts help explain fractions as division. 	<ul style="list-style-type: none"> • Why can different multiplication strategies give the same answer? • How can I use place value to divide larger numbers? • How are multiplication and division connected? • How can a fraction represent division? • What does a fraction tell me about sharing equally? • How do models and real-life situations help explain fractions as division?
--	---

<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> • Partial-products is a place value algorithm for multiplying numbers. • The box method graphic organizer can be used to record partial-products. • The standard algorithm is a traditional, more abbreviated, way of recording multi-digit multiplication. • Partial-quotients is a place value algorithm for dividing numbers. • Understand that the divisor can be interpreted as the quantity within each group. The quotient is the number of groups that can be made from the dividend. • Extension of facts can be used when making groups of the divisor. • A fraction can be interpreted as the numerator divided by the denominator. • Understand that the equation $a \div b = \frac{a}{b}$ and support this idea with visual models. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> • Use partial-products and the box method to multiply whole numbers. • Use the partial-products algorithm and recording to multiply whole numbers. • Use the standard algorithm to multiply multi-digit numbers by a single-digit number. • Use the standard algorithm to multiply multi-digit numbers by multi-digit numbers, when carrying is not necessary. • Use the standard algorithm to multiply multi-digit numbers by multi-digit numbers, when carrying is necessary. • Sketch a bar model to match a word problem. • Use a bar model to determine the steps and operations for solving. • Use the standard algorithm for multiplication to solve word problems. • Use the partial-quotients algorithm to divide by a 1-digit divisor. • Use the partial-quotients algorithm to divide by a 2-digit divisor. • Use partial-products to solve word problems. • Create a visual model to show the numerator of a fraction being divided by the denominator.
---	---

Core Instructional & Supplemental Materials	
<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> • Manipulatives 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> • 5.NF.3

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- | | |
|--|---|
| <ul style="list-style-type: none">• Istation• District Created Lessons (Unit 3)• District Created Parent Resources• Communicators• Unit Review Jeopardy• <i>Number Talks</i>• NJSLA released items | <ul style="list-style-type: none">• 5.NBT.5• 5.NBT.6 |
|--|---|

Suggested Accommodations

English Language Learners:

- Multi-sensory instruction
- Flexible grouping
- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities
- Manipulatives/concrete models
- Modified assignments
- Brain breaks

Economically Disadvantaged:

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cueing
- Activate schema
- Build background knowledge

Culturally Diverse:

- Create an emotionally positive classroom climate.
- Create effective communication
- Model and teach cultural respect
- Build relationships with students by interviewing students to understand their background

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
----------	---------------------------

Unit 4 : Multiplication and Division of Fractions	Duration: 24 days
---	-------------------

[New Jersey Student Learning Standards](#)

5.NF.B	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
5.NF.4	<p>Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <ul style="list-style-type: none"> a. Interpret the product $\left(\frac{a}{b}\right) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5.NF.5	<p>Interpret multiplication as scaling (resizing) by:</p> <ul style="list-style-type: none"> a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{(n \times a)}{(n \times b)}$ to the effect of multiplying $\frac{a}{b}$ by 1.
5.NF.6	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.
5.NF.7	<p>Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.</p> <ul style="list-style-type: none"> a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. b. Interpret division of a whole number by a unit fraction, and compute such quotients. c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.

[New Jersey Standards for Mathematical Practice](#)

MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

MP.3	Construct viable arguments and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies	
Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> ● Recognize and identify the thoughts, feelings, and perspectives of others. ● Demonstrate an awareness of the differences among individuals, groups, and others’ cultural backgrounds. ● Demonstrate an understanding of the need for mutual respect when viewpoints differ. ● Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> ● Develop, implement, and model effective problem-solving and critical thinking skills. ● Identify the consequences associated with one’s actions in order to make constructive choices. ● Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> ● Establish and maintain healthy relationships. ● Utilize positive communication and social skills to interact effectively with others. ● Identify ways to resist inappropriate social pressure. ● Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. ● Identify who, when, where, or how to seek help for oneself or others when needed.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<u>Interdisciplinary Connections</u>	
ELA Standards	
L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies. <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. <ul style="list-style-type: none"> D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. <ul style="list-style-type: none"> A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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 & Key Skills	
9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices	
CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Evidence of Student Learning	
<p>Formative Tasks:</p> <ul style="list-style-type: none"> • Teacher observations • Class discussions • Whiteboard/Communicators • Math routine responses • Daily DOLs • Daily classwork • Checks for understanding • Spiral Quizzes • Fluency Quizzes • <i>Number Talks</i> • NJSLA released items 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> • Oral assessments • Istation
<p>Summative Assessments:</p> <ul style="list-style-type: none"> • Unit Assessment 	<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> • Monthly ISIP

Knowledge & Skills	
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> • Fraction multiplication can be represented using models. • Understanding fraction size helps explain why products can be smaller than the factors. • Basic multiplication facts can be used to solve multiplication problems with fractions. • Multiplication changes the size of a quantity by scaling it up or down. • Multiplying by a number greater than 1 increases a value, while multiplying by a fraction less than 1 decreases it. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> • What does it mean to find a fraction of a fraction? • How can models help me understand fraction multiplication? • Why can multiplying fractions result in a smaller number? • How does multiplication change the size of a quantity? • What happens when I multiply a number greater than 1 or less than 1? • How can scaling help explain real-world situations?

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

<ul style="list-style-type: none"> ● Scaling helps explain how multiplication affects size and quantity. ● Models help visualize scaling in real-life contexts. ● Fraction multiplication can be used to solve real-life problems. ● Different strategies and representations help explain fraction multiplication clearly. ● Understanding the context of a problem is important for choosing the correct operation for solving. ● We can better understand the context of a word problem by sketching a model to represent the problem. ● Division of fractions can be understood as how many groups or how much is in each group. ● Dividing by a unit fraction results in a larger number because the groups are smaller. ● Visual models help explain fraction division. 	<ul style="list-style-type: none"> ● How can I use fraction multiplication to solve real-life problems? ● How do I decide which strategy to model or use? ● How can I explain my thinking clearly? ● What does it mean to divide a whole number by a unit fraction or a unit fraction by a whole number? ● Why does dividing by a fraction sometimes result in a larger number? ● How can visual models help explain fraction division? ● How does fraction division connect to real-world situations?
<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> ● Multiplication expressions can be interpreted in terms of “groups of” ● Small facts for multiplication can be connected to and used for fraction multiplication. ● Visual models of multiplication problems can be used to understand the problem and determine a strategy for solving. ● Make the connection between the model for multiplying fractions and the algorithm. ● Generalize the process of multiplication of fractions. ● Generalize the process of multiplication of mixed numbers. ● Represent word problems using visual models. ● Solve word problems. ● Understand multiplication as scaling: <ul style="list-style-type: none"> ○ When one of the factors is less than a whole, the product will be less than the other factor. ○ If both factors are greater than a whole, the product will be greater than both factors. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Use fraction circles to model the multiplication of a whole number and a fraction. ● Interpret multiplication expressions that include fractions in terms of “groups of” ● Use small fact fluency to multiply fractions and whole numbers ● Sketch a bar model to explain the multiplication of a whole number and a fraction ● Use fraction circles to model multiplying a unit fraction times a whole number ● Sketch a bar model to represent multiplying a unit fraction times a whole number. ● Use a bar model to multiply any fraction times a whole number ● Sketch a model to represent a word problem. Use the model to determine the expression for solving. ● Solve word problems that require the multiplication of fractions and whole numbers. ● Sketch a bar model to represent multiplying a fraction by a fraction. ● Solve word problems that require the multiplication of two fractions. ● Multiply two fractions using the algorithm.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Interpret division problems that include fractions. <ul style="list-style-type: none"> ○ When dividing a whole number by a unit fraction, the dividend tells us the size of the group and the quotient tells us the number of groups that can be made. ○ When dividing a unit fraction by a whole number, the dividend tells us the number of groups and the quotient tells us the size of each group. ● Generalize the process of dividing a whole number by a unit fraction and connect it to multiplication. ● Generalize the process of dividing a unit fraction by a whole number and recognize that we can use multiplication to determine the denominator in the quotient. 	<ul style="list-style-type: none"> ● Use fraction circles to model the multiplication of a whole number and a mixed number.. ● Record the multiplication of a whole number and a mixed number using the box method. ● Create a model to represent multiplying a mixed number by a whole number. ● Record the multiplication of a mixed number by a whole number using the box method. ● Solve word problems that require the multiplication of a mixed number and a whole number. ● Reason about the size of the factors in a multiplication expression in order to determine how the product will compare to one or both of the factors. ● Model division of a whole number by a unit fraction using fraction circles. ● Find the quotient of a whole number divided by a unit fraction. ● Model division of a unit fraction by a whole number using circles and/or bars. ● Find the quotient of a unit fraction divided by a whole number. ● Solve division of fractions word problems.
--	--

Core Instructional & Supplemental Materials

<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> ● Manipulatives ● Istation ● District Created Lessons (Unit 4) ● District Created Parent Resources ● Communicators ● Unit Review Jeopardy ● <i>Number Talks</i> ● NJSLA released items 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> ● Illustrated Mathematics <ul style="list-style-type: none"> ○ 5.NF.4 ○ 5.NF.5 ○ 5.NF.6 ○ 5.NF.7
---	--

Suggested Accommodations

<p>English Language Learners:</p> <ul style="list-style-type: none"> ● Multi-sensory instruction ● Flexible grouping ● Small group instruction ● Provide peer tutoring ● Use a strong student as a “buddy” (does not necessarily have to speak the primary language) ● Chunking information ● Scaffolded questioning
--

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Manipulatives/concrete models ● Modified assignments ● Brain breaks <p>Economically Disadvantaged:</p> <ul style="list-style-type: none"> ● Pre-teach vocabulary using visuals and gestures ● Chunk texts ● Summarize as you go ● Preview lessons ● Graphic organizers ● Highlight key words ● Sentence starters ● Prompting and cueing ● Activate schema ● Build background knowledge <p>Culturally Diverse:</p> <ul style="list-style-type: none"> ● Create an emotionally positive classroom climate. ● Create effective communication ● Model and teach cultural respect ● Build relationships with students by interviewing students to understand their background
--

Unit 5 :Area and Volume	Duration: 13 days
--------------------------------	--------------------------

<u>New Jersey Student Learning Standards</u>	
5.NF.B	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
5.NF.4	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. <ul style="list-style-type: none"> b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5.M.B	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
5.M.2	Recognize volume as an attribute of solid figures and understand concepts of volume measurement. <ul style="list-style-type: none"> a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit: of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

5.M.3	Measure volume by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.
5.M.4	<p>Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <ol style="list-style-type: none"> a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. b. Apply the formulas $V = l \times w \times h$ and $V = B \times h$ and for rectangular prisms find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems. c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

<u>New Jersey Standards for Mathematical Practice</u>
--

MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.
MP.3	Construct viable arguments and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies
--

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Social Awareness	<ul style="list-style-type: none"> Recognize and identify the thoughts, feelings, and perspectives of others. Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds. Demonstrate an understanding of the need for mutual respect when viewpoints differ. Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> Develop, implement, and model effective problem-solving and critical thinking skills. Identify the consequences associated with one's actions in order to make constructive choices. Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> Establish and maintain healthy relationships. Utilize positive communication and social skills to interact effectively with others. Identify ways to resist inappropriate social pressure. Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. Identify who, when, where, or how to seek help for oneself or others when needed.

<u>Interdisciplinary Connections</u>	
ELA Standards	
L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	<p>Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies.</p> <ol style="list-style-type: none"> Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion
Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
----------	---------------------------

Career Readiness, Life Literacies & Key Skills

9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices

CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Evidence of Student Learning

<p>Formative Tasks:</p> <ul style="list-style-type: none"> • Teacher observations • Class discussions • Whiteboard/Communicators • Math routine responses • Daily DOLs • Daily classwork • Checks for understanding • Spiral Quizzes • Fluency Quizzes 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> • Oral assessments • Istation
--	---

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● <i>Number Talks</i> ● NJSLA released items 	
Summative Assessments: <ul style="list-style-type: none"> ● Unit Assessment 	Benchmark Assessments: <ul style="list-style-type: none"> ● Monthly ISIP

Knowledge & Skills	
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Area can be found by covering a shape completely with equal-sized unit squares. ● Rectangles with fractional side lengths can be tiled using unit fraction to find their area. ● Multiplying fractional side lengths gives the same as counting the unit fraction squares. ● Fraction multiplication represents the area of a rectangle, just like whole-number multiplication. ● Area models help visualize and explain how fractions are multiplied. ● Volume describes how much space a solid figure takes up. ● Volume is measured in cubic units, which show three-dimensional space. ● A unit cube represents one cubic unit of volume. ● Solid figures can be filled with unit cubes without gaps or overlaps to measure volume accurately. ● Counting unit cubes helps determine the volume of a solid figure. ● Cubic units (such as cubic centimeters, cubic inches, and cubic feet) describe three-dimensional space. ● Different-sized unit cubes change the number counted, but not the actual volume. ● Accurate volume measurement requires filling a solid completely without gaps or overlaps. ● The formulas $V = B \times h$ and $V = l \times w \times h$ give the same volume as counting unit cubes. ● Multiplying length, width, and height connects volume to multiplication. ● Understanding volume formulas helps solve real-world problems involving space and capacity. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ● How can I find the area of a rectangle using fractional side lengths? ● Why does multiplying the side lengths give the same area as counting unit fraction squares? ● How do area models help me understand fraction multiplication? ● What does a fraction product represent in a rectangular area? ● What is volume, and how is it different from area? ● How can counting unit cubes help me find the volume of a solid figure? ● Why is volume measured in cubic units? ● How can packing unit cubes without gaps or overlaps show the volume of a solid figure? ● Why is it important to fill a solid without gaps or overlaps when measuring volume? ● Why do we use cubic units like cubic centimeters, cubic inches, or cubic feet to measure volume? ● How does the size of a unit cube affect the number of cubes needed to measure volume? ● Why does multiplying length \times width \times height give the same volume as counting cubes? ● How do formulas help me solve real-world volume problems more quickly? ● How can diagrams or models help me understand and check volume calculations?

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Models, diagrams, and formulas provide different ways to understand and calculate volume. ● Volume is additive: the total volume of a solid figure is the sum of the volumes of its non-overlapping parts. ● Solid figures can be composed of multiple right rectangular prisms, and each part can be measured separately. ● Adding the volumes of parts helps solve complex or real-world problems efficiently. ● Understanding how to decompose figures into smaller prisms connects geometry and arithmetic. ● Visual models and diagrams help explain how volumes combine to form a total volume. ● Recognizing volume as additive allows flexibility in solving measurement problems. 	<ul style="list-style-type: none"> ● How can I find the volume of a solid figure made of more than one rectangular prism? ● Why is volume additive when combining non-overlapping parts? ● How can decomposing a figure into smaller prisms help me solve real-world problems? ● How do diagrams or models help me see and calculate the total volume of a composite figure?
<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> ● Area is the space inside of a 2-dimensional figure. ● We can calculate area of a rectangle using the formula $A = l \times w$. ● Understand how to determine the fractional unit being used to measure the area of a rectangle with fractional side lengths. ● Volume is the measurement of the space inside a 3-dimensional object. ● There are two formulas that we can use to find the volume of a rectangular prism: <ul style="list-style-type: none"> ○ $V = B \times h$ ○ $V = l \times w \times h$ ● Understand that volume is additive and use this understanding to find the volume of irregular prisms. <ul style="list-style-type: none"> ○ Partition the irregular prism into rectangular prisms, find the volume of each part and add them together ○ Count the units that compose the irregular figure ○ Apply the volume formula to the entire figure and then subtract the volume of the missing parts. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Solve area word problems by sketching a model of the rectangle and applying the area formula. ● When given the area of a rectangle and the length of one side, find the other side length using the formula for the area of a rectangle. ● Count units within a rectangle to determine the area of the rectangle. ● Use fraction understanding and visual models to determine the unit being used to measure the area of a rectangle. ● Sketch a rectangle on grid paper with given side lengths, and determine the area. ● Use the formula for area of a rectangle to find the area of a rectangle with fractional side lengths. ● Use the area formula to find the area of a rectangle whose side lengths are expressed as a mixed number. ● Record multiplication using the box method. ● Use concrete models to develop an understanding of the formula for volume. ● Use the formula $V = B \times h$ to determine the volume of a rectangular prism. ● Use the formula $V = l \times w \times h$ to determine the volume of a rectangular prism.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	<ul style="list-style-type: none"> ● When given a rectangular prism, determine the dimensions and calculate the volume. ● Determine the volume of a rectangular prism that is only partially filled with unit cubes. ● Find the volume of an irregular figure by cutting it into two separate figures and adding the volume of each for the total volume of the figure, or by counting the unit cubes that compose the figure. ● Find the volume of an irregular prism by applying the formula to the entire figure and then subtracting the missing pieces.
--	--

Core Instructional & Supplemental Materials

<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> ● Manipulatives ● Istation ● District Created Lessons (Unit 5) ● District Created Parent Resources ● Communicators ● Unit Review Jeopardy ● <i>Number Talks</i> ● NJSLA released items 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> ● Illustrated Mathematics <ul style="list-style-type: none"> ○ 5.NF.4 ○ 5.M.4 ● <i>Perimeter, Area, and Volume</i> by David A. Adler
---	---

Suggested Accommodations

<p>English Language Learners:</p> <ul style="list-style-type: none"> ● Multi-sensory instruction ● Flexible grouping ● Small group instruction ● Provide peer tutoring ● Use a strong student as a “buddy” (does not necessarily have to speak the primary language) ● Chunking information ● Scaffolded questioning ● Manipulatives/concrete models ● Pre-Teach vocabulary ● Co-Constructed Word Banks ● Anchor charts ● Gradual release model ● Visual models ● Hands-on activities ● Native language support when possible ● Sheltered English Instruction Strategies ● Sentence starters
--

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities
- Manipulatives/concrete models
- Modified assignments
- Brain breaks

Economically Disadvantaged:

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Sentence starters ● Prompting and cueing ● Activate schema ● Build background knowledge <p>Culturally Diverse:</p> <ul style="list-style-type: none"> ● Create an emotionally positive classroom climate. ● Create effective communication ● Model and teach cultural respect ● Build relationships with students by interviewing students to understand their background

Unit 6: Decimal Operations	Duration: 15 days
-----------------------------------	--------------------------

<u>New Jersey Student Learning Standards</u>	
5.NBT.B	Perform operations with multi-digit whole numbers & with decimals to hundredths
5.NBT.7	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
5.M.A	Convert like measurement units within a given measurement system.
5.M.1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

<u>New Jersey Standards for Mathematical Practice</u>	
MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.
MP.3	Construct viable arguments and 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.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

New Jersey Social and Emotional Competencies and Sub-Competencies

Self-Awareness	<ul style="list-style-type: none"> Recognize one’s feelings and thoughts. Recognize the impact of one’s feelings and thoughts on one’s own behavior. Recognize one’s personal traits, strengths, and limitations. Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. Recognize the skills needed to establish and achieve personal and educational goals. Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> Recognize and identify the thoughts, feelings, and perspectives of others. Demonstrate an awareness of the differences among individuals, groups, and others’ cultural backgrounds. Demonstrate an understanding of the need for mutual respect when viewpoints differ. Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> Develop, implement, and model effective problem-solving and critical thinking skills. Identify the consequences associated with one’s actions in order to make constructive choices. Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> Establish and maintain healthy relationships. Utilize positive communication and social skills to interact effectively with others. Identify ways to resist inappropriate social pressure. Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. Identify who, when, where, or how to seek help for oneself or others when needed.

[Interdisciplinary Connections](#)

ELA Standards

L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies. <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. <ul style="list-style-type: none"> D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. <ul style="list-style-type: none"> A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion

Social Studies

6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.
-------------------------	---

Computer Science & Design Thinking

8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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 & Key Skills	
9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices	
CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Evidence of Student Learning	
<p>Formative Tasks:</p> <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes ● <i>Number Talks</i> ● NJSLA released items 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> ● Oral assessments ● Istation
<p>Summative Assessments:</p> <ul style="list-style-type: none"> ● Unit Assessment 	<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> ● Monthly ISIP

Knowledge & Skills	
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Decimal operations follow place-value rules just like whole numbers. ● Adding, subtracting, multiplying, and dividing decimals can be done using models, equations, or algorithms. ● Estimation helps check whether decimal calculations are reasonable. ● Understanding decimal operations allows solving real-world problems involving money, measurement, or quantities. ● Visual models (like grids or number lines) help explain decimal computations. ● Units within the same measurement system are related by multiplication or division. ● Converting measurements helps compare, compute, and solve real-world problems. ● Understanding how larger and smaller units relate supports accurate measurement and estimation. ● Visual models, diagrams, and equations can organize information and clarify conversions. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ● How do place-value rules help me add, subtract, multiply, and divide decimals? ● How can models or equations help me explain decimal operations? ● Why is estimation important when working with decimals? ● How can I use decimals to solve real-world problems involving money, measurement, or quantities? ● How are units within the same measurement system related? ● How can I convert measurements to solve real-world problems? ● Why is it important to understand how larger and smaller units relate? ● How can diagrams, tables, or equations help me organize and convert measurements accurately?

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Content

Students will know...

- There are 10 tenths in 1 whole.
- There are 10 hundredths in 1 tenth.
- When adding numbers with decimals, we add wholes to wholes, tenths to tenths, and hundredths to hundredths.
- Use mental addition and subtraction strategies to solve problems.
- Interpret multiplication expressions with decimals in terms of groups of.
- The standard algorithm for multiplication of whole numbers can be used when multiplying decimal numbers.
- When dividing a decimal by a whole number, we can interpret the divisor as the number of groups being made. The quotient tells us the size of each group.
- Relate the division of decimals to division of whole numbers
- Units of measure can be converted within the same system of measurement.

Skills

Students will be able to ...

- Use base-10 blocks and visual models to add decimals.
- Record the addition of decimals using place value understanding.
- Use base-10 blocks and visual models to subtract decimals.
- Model exchanging wholes for tenths and/or tenths for hundredths in order to subtract.
- Record the subtraction of decimals using place value understanding.
- Model mental strategies for adding and subtracting decimals on an open number line.
- Use base-10 blocks and visual models to represent multiplying decimals
- Use rounding strategies and knowledge of benchmark numbers and place value to approximate the product when multiplying decimals.
- Use the standard algorithm for multiplication of whole numbers to multiply decimal numbers; then place the decimal point using place value understanding
- Use base-10 blocks to represent the division of a decimal by a whole number.
- Apply basic division facts when dividing decimals by whole numbers.
- Use base-10 blocks to represent dividing a whole number by a decimal.
- Use place value understanding to think of the whole number in terms of the decimal.
- Apply basic division facts when dividing a whole number by a decimal.
- Use rounding strategies and knowledge of benchmark numbers and place value to approximate the quotient when dividing decimals.
- Use the partial-quotients algorithm for division of whole numbers to divide decimal numbers; then place the decimal point using place value understanding.
- Sketch a bar model to represent measurement word problems.
- Use multiplication to convert units within the same system.
- Use the four operations to solve multi-step measurement word problems.

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

Core Instructional & Supplemental Materials

Suggested Activities/Resources:

- Manipulatives
- Istation
- District Created Lessons (Unit 6)
- District Created Parent Resources
- Communicators
- Unit Review Jeopardy
- *Number Talks*
- NJSLA released items

Supplemental Materials

- Illustrated Mathematics
 - [5.NBT.7](#)
 - [5.M.1](#)

Suggested Accommodations

English Language Learners:

- Multi-sensory instruction
- Flexible grouping
- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities
- Manipulatives/concrete models
- Modified assignments
- Brain breaks

Economically Disadvantaged:

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cueing
- Activate schema
- Build background knowledge

Culturally Diverse:

- Create an emotionally positive classroom climate.
- Create effective communication
- Model and teach cultural respect
- Build relationships with students by interviewing students to understand their background

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Unit 7: Numeric Expressions	Duration: 10 days
------------------------------------	--------------------------

<u>New Jersey Student Learning Standards</u>
--

5.OA.A	Write and interpret numerical expressions.
5.OA.1	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
5.OA.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

<u>New Jersey Standards for Mathematical Practice</u>

MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.
MP.3	Construct viable arguments and 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.

New Jersey Social and Emotional Competencies and Sub-Competencies
--

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> ● Recognize and identify the thoughts, feelings, and perspectives of others.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	<ul style="list-style-type: none"> • Demonstrate an awareness of the differences among individuals, groups, and others' cultural backgrounds. • Demonstrate an understanding of the need for mutual respect when viewpoints differ. • Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> • Develop, implement, and model effective problem-solving and critical thinking skills. • Identify the consequences associated with one's actions in order to make constructive choices. • Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> • Establish and maintain healthy relationships. • Utilize positive communication and social skills to interact effectively with others. • Identify ways to resist inappropriate social pressure. • Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. • Identify who, when, where, or how to seek help for oneself or others when needed.

Interdisciplinary Connections

ELA Standards

L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	<p>Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies.</p> <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion
Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data
8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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 & Key Skills	
9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices	
CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Evidence of Student Learning	
<p>Formative Tasks:</p> <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes ● <i>Number Talks</i> ● NJSLA released items 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> ● Oral assessments ● Istation

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Summative Assessments: <ul style="list-style-type: none">• Unit Assessment	Benchmark Assessments: <ul style="list-style-type: none">• Monthly ISIP• SGO Assessment
---	---

Knowledge & Skills

Enduring Understandings: <ul style="list-style-type: none">• Numbers and operations can be combined in expressions to represent real-world situations.• Understanding the meaning of parentheses and the order of operations helps evaluate expressions correctly.• Parentheses, brackets, and braces help group parts of an expression to show which operations should be done first.• The order of operations ensures that expressions are evaluated correctly and consistently.• Expressions can represent real-world situations that require careful grouping of operations.• Understanding how to evaluate grouped expressions strengthens problem-solving and reasoning skills.• Different grouping symbols can be used together to clarify complex calculations.• Expressions can describe relationships between quantities without using an equals sign.• Numerical expressions represent calculations with numbers in a concise way.• Expressions can show relationships between quantities without needing to solve them.• Understanding the meaning of each part of an expression helps explain what it represents.• Parentheses, brackets, and the order of operations determine how expressions are interpreted.• Writing and interpreting expressions builds reasoning skills for solving real-world problems.	Essential Questions: <ul style="list-style-type: none">• How do parentheses, brackets, and braces affect the way I evaluate an expression?• Why is the order of operations important when working with grouped numbers?• How can grouping symbols help me represent real-world problems accurately?• How can I explain the steps I use to evaluate a complex expression?• Why might different grouping symbols be used together in one expression?• How can I write a numerical expression to represent a real-world calculation?• What does each part of a numerical expression tell me about the situation it represents?• How do parentheses and the order of operations affect how I interpret an expression?• How can understanding expressions help me solve problems more effectively?
---	--

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> ● Order of operations refers to the order in which we perform operations when evaluating an expression. <ul style="list-style-type: none"> ○ Parentheses ○ Multiplication or division ○ Addition or subtraction ● It is necessary to follow the order of operations so that everyone gets the same answer. ● Some expressions may include nested parentheses. When evaluating these, we start with the innermost set of parentheses. ● Parentheses are used as a grouping symbol. ● Recognize when it is necessary to include parentheses in an expression in order to accurately represent a scenario. ● The sum is the answer to an addition problem. ● The difference is the answer to a subtraction problem. ● The product is the answer to a multiplication problem. ● The quotient is the answer to a division problem. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Apply the order of operations to evaluate or simplify an expression ● Create a concrete model to represent a scenario that requires parentheses.. ● Use the model to write an expression to match a given scenario. ● Use the expression the solve respond to the question presented in the scenario. ● Sketch a visual model to represent an expression ● Write the expression that is being represented by a visual model. ● Write the numeric expression that can be used to represent a given phrase. ● Write a numeric expression that represents a word problem.
--	--

Core Instructional & Supplemental Materials

<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> ● Manipulatives ● Istation ● District Created Lessons (Unit 7) ● District Created Parent Resources ● Communicators ● Unit Review Jeopardy ● <i>Number Talks</i> ● NJSLA released items 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> ● Illustrated Mathematics <ul style="list-style-type: none"> ○ 5.OA.1 ○ 5.OA.2
---	--

Suggested Accommodations

<p>English Language Learners:</p> <ul style="list-style-type: none"> ● Multi-sensory instruction ● Flexible grouping

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models
- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Provide visuals ● Be flexible with assignments and time frames ● Provide needed academic resources ● Chunking information ● Scaffolded questioning ● Tiered activities ● Manipulatives/concrete models ● Modified assignments ● Brain breaks <p>Economically Disadvantaged:</p> <ul style="list-style-type: none"> ● Pre-teach vocabulary using visuals and gestures ● Chunk texts ● Summarize as you go ● Preview lessons ● Graphic organizers ● Highlight key words ● Sentence starters ● Prompting and cueing ● Activate schema ● Build background knowledge <p>Culturally Diverse:</p> <ul style="list-style-type: none"> ● Create an emotionally positive classroom climate. ● Create effective communication ● Model and teach cultural respect ● Build relationships with students by interviewing students to understand their background

Unit 8: Geometry	Duration: 15 days
-------------------------	--------------------------

<u>New Jersey Student Learning Standards</u>	
5.OA.B	Analyze patterns and relationships
5.OA.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.
5.G.A	Graph points on the coordinate plane to solve real-world and mathematical problems.
5.G.1	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

5.G.2	Represent real world and mathematical problems by graphing points in the first quadrant on the coordinate plane, and interpret coordinate values of points in the context of the situation.
5.G.B	Classify two-dimensional figures into categories based on their properties.
5.G.3	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
5.G.4	Classify two-dimensional figures in a hierarchy based on properties.
5.DL.A	Understand and analyze data visualizations.
5.DL.1	Understand how different visualizations can highlight aspects of data. Ask questions and interpret data visualizations to describe and analyze patterns.
5.DL.2	Develop strategies to collect, organize and represent data of various types and from various sources. Communicate results digitally through a data visual (e.g. chart, storyboard, video presentation).
5.DL.3	Collect and clean data to be analyzable (e.g., make sure each entry is formatted correctly, deal with missing or incomplete data).
5.DL.4	Using appropriate visualizations (i.e. double line plot, double bar graph), analyze data across samples.
5.DL.B	Represent and interpret data.
5.DL.5	Make a line plot to display a data set of measurement in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots.

<u>New Jersey Standards for Mathematical Practice</u>	
MP.1	Make sense of problems and persevere in solving them.
MP.2	Reason abstractly and quantitatively.
MP.3	Construct viable arguments and 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.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

New Jersey Social and Emotional Competencies and Sub-Competencies

Self-Awareness	<ul style="list-style-type: none"> ● Recognize one’s feelings and thoughts. ● Recognize the impact of one’s feelings and thoughts on one’s own behavior. ● Recognize one’s personal traits, strengths, and limitations. ● Recognize the importance of self-confidence in handling daily tasks and challenges.
Self-Management	<ul style="list-style-type: none"> ● Understand and practice strategies for managing one’s own emotions, thoughts, and behaviors. ● Recognize the skills needed to establish and achieve personal and educational goals. ● Identify and apply ways to persevere or overcome barriers through alternative methods to achieve one’s goals.
Social Awareness	<ul style="list-style-type: none"> ● Recognize and identify the thoughts, feelings, and perspectives of others. ● Demonstrate an awareness of the differences among individuals, groups, and others’ cultural backgrounds. ● Demonstrate an understanding of the need for mutual respect when viewpoints differ. ● Demonstrate an awareness of the expectations for social interactions in a variety of settings.
Responsible Decision Making	<ul style="list-style-type: none"> ● Develop, implement, and model effective problem-solving and critical thinking skills. ● Identify the consequences associated with one’s actions in order to make constructive choices. ● Evaluate personal, ethical, safety, and civic impact of decisions.
Relationship Skills	<ul style="list-style-type: none"> ● Establish and maintain healthy relationships. ● Utilize positive communication and social skills to interact effectively with others. ● Identify ways to resist inappropriate social pressure. ● Demonstrate the ability to prevent and resolve interpersonal conflicts in constructive ways. ● Identify who, when, where, or how to seek help for oneself or others when needed.

Interdisciplinary Connections

ELA Standards

L.RF.5.3	Know and apply grade-level phonics and word analysis skills in decoding and encoding words; use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
L.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
L.WF.5.2	Demonstrate command of the conventions of writing, including those listed under

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

	grade four foundational skills.
L.KL.5.1	Use knowledge of language and its conventions when writing, speaking, reading, or listening.
L.VL.5.2	Determine or clarify the meaning of unknown and multiple-meaning academic and domain-specific words and phrases based on grade 5 reading and content, choosing flexibility from a range of strategies. <ul style="list-style-type: none"> A. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. B. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, autograph). C. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.
RI.MF.5.6	Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, timelines, animations, interactive elements on web pages) and explain how the information contributes to an understanding of the text in which it appears.
W.IW.5.2	Write informative/explanatory texts to examine a topic and convey information clearly. <ul style="list-style-type: none"> D. Use precise language and domain specific vocabulary to inform about or explain a topic.
SL.PE.5.1	Engage effectively in a range of collaborative discussions (one-to-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly. <ul style="list-style-type: none"> A. Explicitly draw on previously read text or material and other information known about the topic to explore ideas under discussion. B. Follow agreed-upon rules for discussions and carry out assigned roles. C. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks made by others. D. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion
Social Studies	
6.1.5.CivicsCM.3	Identify the types of behaviors that promote collaboration and problem solving with others who have different perspectives.

Computer Science & Design Thinking	
8.1.5.DA.1	Collect, organize, and display data in order to highlight relationships or support a claim.
8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of data

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

8.1.5.DA.4	Organize and present climate change data visually to highlight relationships or support a claim.
8.1.5.AP.1	Compare and refine multiple algorithms for the same task and determine which is most appropriate
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 & Key Skills	
9.4.5.CI.3	Participate in brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity.
9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process
9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global.
9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology
9.4.5.IML.2	Create a visual representation to organize information about a problem or issue
9.4.5.IML.3	Represent the same data in multiple visual formats in order to tell a story about the data.

Career Readiness, Life Literacies, and Key Skills Practices	
CLKS.1	Act as a responsible and contributing community member and employee.
CLKS.2	Attend to financial well-being.
CLKS.3	Consider the environmental, social and economic impacts of decisions.
CLKS.4	Demonstrate creativity and innovation.
CLKS.5	Utilize critical thinking to make sense of problems and persevere in solving them.
CLKS.6	Model integrity, ethical leadership and effective management.
CLKS.7	Plan education and career paths aligned to personal goals.
CLKS.8	Use technology to enhance productivity, increase collaboration and communicate effectively.
CLKS.9	Work productively in teams while using cultural/global competence.

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

Evidence of Student Learning	
<p>Formative Tasks:</p> <ul style="list-style-type: none"> ● Teacher observations ● Class discussions ● Whiteboard/Communicators ● Math routine responses ● Daily DOLs ● Daily classwork ● Checks for understanding ● Spiral Quizzes ● Fluency Quizzes ● <i>Number Talks</i> ● NJSLA released items 	<p>Alternative Assessments:</p> <ul style="list-style-type: none"> ● Oral assessments ● Istation
<p>Summative Assessments:</p> <ul style="list-style-type: none"> ● Unit Assessment 	<p>Benchmark Assessments:</p> <ul style="list-style-type: none"> ● Istation Diagnostic ● Monthly ISIP ● End of Year Assessment

Knowledge & Skills	
<p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Patterns can be generated using rules, and these patterns reveal relationships between numbers. ● Comparing two patterns helps identify how numbers are related across sequences. ● The coordinate plane uses ordered pairs to locate points. ● The first number in an ordered pair (x-coordinate) tells how far to move horizontally; the second number (y-coordinate) tells how far to move vertically. ● Graphing points helps visualize relationships between numbers. ● Shapes can be classified by their attributes such as sides, angles, and symmetry. ● Some shapes belong to multiple categories because they share important properties. ● Understanding shape properties helps describe, compare, and build geometric figures. ● Classification reveals patterns and relationships in geometry. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ● How can I identify relationships between two numerical patterns? ● How can I locate points using ordered pairs on a coordinate plane? ● What does the x-coordinate and y-coordinate tell me about a point's location? ● How can graphing points help me understand relationships between numbers? ● How can I sort and classify shapes based on sides, angles, and other attributes? ● Why do some shapes belong to more than one category? ● How does understanding shape properties help me describe, compare, or create shapes? ● How can a line plot help me organize and display measurement data clearly? ● How do fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$) show precise measurements on a line plot? ● How can I use a line plot to find patterns, clusters, or gaps in data?

Lakewood Public School District Curriculum Guide

Grade: 5	Content Area: Mathematics
-----------------	----------------------------------

<ul style="list-style-type: none"> ● Line plots help organize data so patterns, clusters, and gaps are easier to see. ● Measurement data can include fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$) to show precision. ● Using line plots supports solving real-world problems by showing trends in the data. ● Interpreting line plots helps compare, analyze, and make decisions based on data. 	<ul style="list-style-type: none"> ● How can analyzing a line plot help me solve real-world problems?
---	--

<p>Content <i>Students will know...</i></p> <ul style="list-style-type: none"> ● Two-dimensional figures can be classified based on their attributes. ● Parallel lines are two lines that never intersect. ● Perpendicular lines are lines that intersect at a right angle. ● Understand the hierarchy of classification of two-dimensional figures. ● Understand that a two-dimensional figure can belong to more than one category. ● When we plot a point, we find the location of the point on the coordinate plane and we mark it. ● The horizontal line along the bottom of the coordinate grid is the x-axis. ● The vertical line along the left side of the coordinate plane is called the y-axis. ● The location at which the x- and y-axes intersect is called the origin. ● An ordered pair consists of two numbers and gives us directions to arrive at a specific location. ● The x-coordinate tells us how to move along the x-axis. ● The y-coordinate tells us how to move along the y-axis. ● Line plots are used to organize numeric data. 	<p>Skills <i>Students will be able to ...</i></p> <ul style="list-style-type: none"> ● Identify parallel or perpendicular in a 2-dimensional figure. ● Classify two-dimensional figures based on their attributes. ● Name two-dimensional figures based on defining attributes. ● On a grid, describe the location of a specified place. ● On a grid, sketch the location of a place when given directions to it. ● Use ordered pairs to plot points on the coordinate plane. ● Identify the coordinates of a point plotted on the coordinate plane. ● Describe the relationship between two number patterns. ● Apply a given rule to complete an input/output table. ● Identify the input/output table that follows a given set of rules. ● Collect data and arrange it in a line plot. ● Measure objects to the nearest $\frac{1}{8}$ of an inch to collect data for a line plot. ● Use the four operations with fractions in order to answer questions about data displayed in a line plot.
--	---

Core Instructional & Supplemental Materials	
--	--

<p>Suggested Activities/Resources:</p> <ul style="list-style-type: none"> ● Manipulatives ● Istation 	<p>Supplemental Materials</p> <ul style="list-style-type: none"> ● Illustrated Mathematics <ul style="list-style-type: none"> ○ 5.OA.3
---	--

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- | | |
|---|--|
| <ul style="list-style-type: none">● District Created Lessons (Unit 8)● District Created Parent Resources● Communicators● Unit Review Jeopardy● <i>Number Talks</i>● NJSLA released items | <ul style="list-style-type: none">○ 5.G.1○ 5.G.2○ 5.G.3○ 5.G.4○ 5.DL.5● <i>Number Patterns</i> by Robert Lee● <i>Nature's Numbers and Patterns</i> by Mary Atkinson● <i>Hidden Figures</i> by Margot Lee Shetterly, Winifred Conkling |
|---|--|

Suggested Accommodations

English Language Learners:

- Multi-sensory instruction
- Flexible grouping
- Small group instruction
- Provide peer tutoring
- Use a strong student as a “buddy” (does not necessarily have to speak the primary language)
- Chunking information
- Scaffolded questioning
- Manipulatives/concrete models
- Pre-Teach vocabulary
- Co-Constructed Word Banks
- Anchor charts
- Gradual release model
- Visual models
- Hands-on activities
- Native language support when possible
- Sheltered English Instruction Strategies
- Sentence starters

Special Education/Students with Disabilities:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Follow all IEP modifications
- Calculators
- Manipulatives/concrete models
- Directions repeated, clarified, and reworded
- Breakdown task into manageable parts

504 Plans:

- Allow extra time to complete assignments or tests
- Work in a small group
- Allow answers to be given orally or dictated
- Calculators
- Manipulatives/concrete models

Lakewood Public School District Curriculum Guide

Grade: 5

Content Area: Mathematics

- Follow all 504 modifications

Gifted and Talented:

- Higher level questioning
- Enriched assignments
- Tiered assignments
- Choice board to extend learning
- NJSLA released items

Students at Risk of Failure:

- Provide peer tutoring
- Use a strong student as a “buddy”
- Allow extra time to complete assignments or tests
- Work in a small group
- One on one instruction
- Provide immediate praise and feedback
- Create a nurturing environment
- Provide visuals
- Be flexible with assignments and time frames
- Provide needed academic resources
- Chunking information
- Scaffolded questioning
- Tiered activities
- Manipulatives/concrete models
- Modified assignments
- Brain breaks

Economically Disadvantaged:

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Summarize as you go
- Preview lessons
- Graphic organizers
- Highlight key words
- Sentence starters
- Prompting and cueing
- Activate schema
- Build background knowledge

Culturally Diverse:

- Create an emotionally positive classroom climate.
- Create effective communication
- Model and teach cultural respect
- Build relationships with students by interviewing students to understand their background