CURRICULUM PLAN 2022/2023
Language Arts, Mathematics, & Virtue in Practice
Our Lady of Perpetual Help School, Bakersfield

WRITING FOCUS	GRAMMAR FOCUS	READING STRATEGY FOCUS	SPEAKING & LISTENING FOCUS	VIRTUE IN PRACTICE FOCUS	MATH POWER STANDARDS (MPS)
Narrative (K-2) I can write narratives to develop real or imagined experiences using effective technique, descriptive details, & clear sequence of events. Informative (3-8) I can write informative texts to examine a topic and convey ideas and information clearly Email Etiquette (6-8)	Parts of Speech Review	Understand text features (K-5) Review (6-8) Understanding text features Annotation and note taking	Classroom Rules & Routines 1. What is the routine for asking a question? 2. What is the routine for working in groups? 3. How do students respond to classmates in a discussion? 4. When should students speak and when should they listen? 5. How should students speak to adults? 6. Email etiquette		MP1: Understand and Persevere I can make sense of problems and not give up when trying to solve them *see attached MPS for more detailed information.
Narrative (K-2) I can write narratives to develop real or imagined experiences using effective technique, descriptive details, & clear sequence of events. Informative (3-8) I can write informative texts to examine a topic and convey ideas and information clearly	Elements of a complete sentence: - Subjects and Verbs (6-8) - Fragments	Identify & understand key ideas and details & how they relate to the main idea (K-8)	What makes a strong discussion? 1.Actively participate 2.Listen to one another 3.Build on each other's ideas 4.Remain engaged 5.Behave respectfully	Faith Believing in God and all He has revealed.	MP2: Logic and Reasoning I can use words, numbers, logic, and reasoning skills to help me solve problems *see attached MPS for more detailed information.
Narrative (K-2) I can write narratives to develop real or imagined	Simple Sentences + Phrases	Summarize the text (K-8) Identify organizational	What does Collaborative Discussion sound like? 1.Leader states the purpose/	Reverence Showing your deepest respect for things of God.	MP3: Justify and Critique I can justify my strategies and evaluate if the ideas of

experiences using effective technique, descriptive details, & clear sequence of events. Informative (3-8) I can write informative texts to examine a topic and convey ideas and information clearly		structures (6-8)	goal 2.Pose and respond to questions 3.Be courteous 4.Keep things moving 5.Wrap it up		others' make sense *see attached MPS for more detailed information.*
Opinion (K-5)/ Argumentative (6-8) I can write opinion pieces on topics supporting a point of view with reasons and evidence.	Independent Clauses: - Compound Sentences - Runons	Identify author's claim and key reasons to support claim (K-8)	Preparing for a discussion 1.Research your topic 2.Reflect, synthesize, and question 3.Take notes	Stewardship Returning to God the first fruits of your time, talent, and treasure.	MP4: Model with Mathematics I can clearly show my work using words, diagrams, pictures, and symbols *see attached MPS for more detailed information.*
Opinion (K-5)/ Argumentative (6-8) I can write opinion/ argumentative pieces on topics supporting a point of view with reasons and evidence..	Dependent Clauses: ● AAAWWUBBIS (Subordinating Conjunctions) ● THAMO (conjunctive adverbs) ● FANBOYS (coordinating conjunctions)	Identify & Differentiate fact and opinion (K-8)	Establish and follow procedures 1.What's your role? 2.Make decisions as a group 3.Set goals and track progress 4.Stay on track 5.Establish rules for talking 6.Moderate the discussion	Generosity Giving without counting the cost.	MP5: Strategically Use Tools I can select and use the appropriate tools to help me solve problems. *see attached MPS for more detailed information.*
Opinion (K-5)/ Argumentative (6-8) I can write opinion/ argumentative pieces on topics supporting a point of view with reasons and evidence..	Review	Make inferences (K-8)	Speak constructively 1.Speak formally in complete sentences 2.Watch your body language 3.Listen actively and wait for your turn 4.Don't make side comments 5.Use evidence to add to discussion 6.Build on others' ideas	Gratitude Seeing everything as a gift and being thankful.	MP5: Strategically Use Tools I can select and use the appropriate tools to help me solve problems *see attached MPS for more detailed information.*
Opinion (K-5)/ Argumentative (6-8)	Subject Verb Agreement	Draw conclusions based on evidence from text (K-8)	Listen and Respond 1.Stick to the subject 2.Elaborate	Honesty Being trustworthy and true.	MP6: Attend to Precision I can review my calculations and strategies to see if they

I can write opinion/ argumentative pieces on topics supporting a point of view with reasons and evidence.			3.Connect with your group 4.Add new reasoning 5.Recognize distracted behavior 6.Question and clarify		are correct *see attached MPS for more detailed information.*
	Pronoun Antecedent Agreement (6-8)	Identify Author's purpose & Point of View (K-8) Analyze plot development, conflict/resolution (6-8)	Wrapping Up the Discussion 1. Reflecting by paraphrasing key points 2. Creating an action plan for each member	Mercy Caring for those who suffer.	MP7: Utilize Structure I can use the structure of a problem to help me find the answer *see attached MPS for more detailed information.*
Informative (K-2) I can write informative texts to examine a topic and convey ideas and information clearly Narrative (3-5) I can write narratives to develop real or imagined experiences using effective technique, descriptive details, & clear sequence of events. Literary Analysis (6-8) I can respond to literature by stating a claim that is supported with reasons, analysis, and text-based evidence.	Pronoun Problems and Tense Consistency (6-8)	Describe characters, setting, and events using details from text (K-8) Analyze how story elements interact (6-8)	Use media in a presentation Use audio, video, images, and presentation software to help support your presentation and increase interest Giving a Presentation 1.Information is appropriate for purpose/ audience/ task 2.Claim and thesis stated 3.Claim logically supported with evidence 4.Effective language and style 5.Appropriate eye contact, volume, enunciation, and gestures	Justice Being fair and giving each his due.	MP8: Utilize Patterns I can find and use mathematical patterns to help me solve a problem *see attached MPS for more detailed information.*

Informative (K-2) I can write informative texts to examine a topic and convey ideas and information clearly Narrative (3-5) I can write narratives to develop real or imagined experiences using effective technique, descriptive details, & clear sequence of events. Literary Analysis (6-8) I can respond to literature by stating a claim that is supported with reasons, analysis, and text-based evidence.	Common Usage Errors (6-8)	Determine theme of a text (K-8) Evaluate author's word choice and tone & how they influence the text(6-8)	Analyze and Evaluate Presentations	Zeal Being driven by an intense love for God.	Review *see attached MPS for more detailed information.*

Math Power Standard for Grade __K___	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard #1: Count to 100 by ones and by tens K.CC	CCSS.MATH.CONTENT.K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1). CCSS.MATH.CONTENT.K.CC.B.4.A When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. CCSS.MATH.CONTENT.K.CC.B.4.B Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. CCSS.MATH.CONTENT.K.CC.B.4.C Understand that each successive number name refers to a quantity that is one larger.	Concepts: ● Count ● informal language (know the terms: number, digit) ● sequence/number order ● Recognize Skills: ● Must be able to count by ones to 100. ● Must be able to count by tens to 100. ● Verbalize numbers by ones to 100. ● Verbalize numbers by tens to 100. ● recognize number names ● count on ● understand the terms: number, digits	❖ 100th day chart ❖ place value frame ❖ ten frames and counters ❖ number line ❖ GoMath Text Book ❖ GoMath Practice Book ❖ ThinkCentral Homework ❖ Rocket Math ❖ Learning Centers created by Teacher		By the end of kindergarten
Power Standard #2: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	CCSS.MATH.CONTENT.K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality. CCSS.MATH.CONTENT.K.CC.B.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.	Concepts: ● write numbers ● represent numbers ● count ● informal language (know the terms: objects, counters, pictures, etc.) ● sequence/number order ● recognize Skills ● write numbers 0-20 ● represent numbers 0-20 ● count from 1 to 20 ● count on from a given number to 20 ● understand the terms: objects, counters, pictures, etc. ● recognize numbers 0-20	❖ counters ❖ ten frames ❖ GoMath Text Book ❖ GoMath Practice Book ❖ ThinkCentral Homework ❖ Rocket Math ❖ Learing Centers created by teachers ❖ Handwriting book		By the end of kindergarten

Power Standard #3:	CCSS.MATH.CONTENT.K.CC.C.6	Concept:	❖ *GoMath Text Book*		*By the end of*
Compare two numbers between 1 and 10 presented as written numerals.	*Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1*	• Compare • identify • greater than • less than • equal to • groups • write Skills: • compare two numbers from 1-10 • recognize numbers from 1-10 • recognize greater than • recognize less than • recognize equal to. • understand the concepts of groups, sets • write numbers 1-10	❖ *GoMath Practice Book* ❖ *ThinkCentral Homework*		*kindergarten*
Power Standard #4:	CCSS.MATH.CONTENT.K.OA.A.1	Concepts:	❖ *GoMath Text Book*		*By the end of*
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.	*Represent addition and subtraction with objects, fingers, mental images, drawings1, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.* *CCSS.MATH.CONTENT.K.OA.A.4* *For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.*	• Solve • Decompose • add • Answer • subtract • recognize symbols of math • strategies on how to solve • informal language (pairs, objects, equations, ten-frames, mental images, sum, difference, equals, etc.) Skills: • solve addition problems • solve subtraction problems • representation of numbers • decompose numbers less than or equal to 10 • add numbers less than or equal to 10 • identify the sum of an equation • identify the difference of an equation • use mental computation • counting on • counting backwards • identify + • identify - • identify = • understand the terms: pairs, ten-frame, objects, equations, sum, difference, equals, computation, less than, greater than	❖ *GoMath Practice Book* ❖ *ThinkCentral Homework* ❖ ❖ *Rocket Math* ❖ ❖ *Number Line*		*kindergarten*

| Power Standard #5:

Fluently add and subtract within 5. | CCSS.MATH.CONTENT.K.OA.A.1
Represent addition and subtraction with objects, fingers, mental images, drawings1, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. | Concepts:

● recognize
● symbols of math
● informal language
● add
● subtract

Skills:

● represent how to put groups together
● represent how to take groups apart
● understand that + means adding
● understand that - means subtracting
● understand that = means the sum or difference
● understanding the meaning of: sum, addition, subtraction, equal to, difference
● how to write an addition equation
● how to write a subtraction equation
● recognize numbers 1-5
● write the numbers 1-5
● fluently add numbers 1-5
● fluently subtract numbers 1-5 | ❖ *GoMath Text Book*
❖ *GoMath Practice Book*
❖ *ThinkCentral Homework*
❖ *Rocket Math*
❖ *Flash Cards* | | *By the end of kindergarten* |
| Power Standard #6

Work with numbers 11-19 to gain foundations for place value. | CCSS.MATH.CONTENT.K.NBT.A.1
Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. | Concepts:

● recognize
● write
● count
● place value
● informal language
● represent

Skills:

● recognize numbers 1-19
● write numbers 1-19
● count from 0 to 19
● count on from any given number to 19
● understand concepts of tens and ones
● decompose numbers 1-19
● compose numbers 1-19
● understand the terms: place value, tens place, one's place, decompose, compose.
● represent the number of each value through ones or tens | ● *GoMath Text Book*
● *GoMath Practice Book*
● *ThinkCentral Homework*
● *Place Value Frame* | | *By the end of kindergarten* |

Power Standard #7: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.	CCSS.MATH.CONTENT.K.CC.A.3 *Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).* CCSS.MATH.CONTENT.K.CC.A.1 *Count to 100 by ones and by tens.* CCSS.MATH.CONTENT.K.MD.A.2 *Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.*	Concepts: ● classify ● count ● recognize ● sort ● informal language ● write Skills: ● classify objects ● count objects ● recognize their category ● sort by attribute ● recognize numbers 1-20 ● write numbers 1-20 ● count numbers 1-20 ● count on from any given number to 20	❖ *GoMath Text Book* ❖ *GoMath Practice Book* ❖ *ThinkCentral Homework* ❖ *Interactive Notebook* ❖ *Learning Centers created by teacher*		*By the end of kindergarten*
Power standard #8: Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind and next to.	CCSS.MATH.CONTENT.K.G.A.2 *Correctly name shapes regardless of their orientations or overall size.* CCSS.MATH.CONTENT.K.G.A.3 *Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").* CCSS.MATH.CONTENT.K.MD.A.1 *Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.*	Concepts: ● describe ● recognize ● informal language ● 2D shapes ● 3D shapes ● attributes Skills: ● name the shapes ● recognize the shape ● know the attributes of shapes ● understand the positional terms: above, below, beside, in front of, behind, and next to. ● recognize 2D shapes ● recognize 3D shapes	❖ *GoMath Text Book* ❖ *GoMath Practice Book* ❖ *ThinkCentral Homework* ❖ *Learning Centers created by Teachers*		*By the end of kindergarten*
Power standard #9: Analyze and compare two and three dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/ "corners") and other attributes (e.g., having sides of equal length.	CCSS.MATH.CONTENT.K.G.A.3 *Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").* CCSS.MATH.CONTENT.K.G.A.2 *Correctly name shapes regardless of their orientations or overall size.* CCSS.MATH.CONTENT.K.MD.A.2 *Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.*	Concepts: ● analyze ● compare ● understand math vocabulary ● 2d shapes ● 3d shapes ● sizes ● orientations ● informal language ● similarities ● differences Skills: ● Analyze 2D shapes ● Analyze 3D shapes ● Compare 2D shapes ● Compare 3D shapes ● use informal language to describe similarities ● use informal language to describe differences	❖ *GoMath Text Book* ❖ *GoMath Practice Book* ❖ *ThinkCentral Homework* ❖ *Learning centers created by teachers*		*By the end of kindergarten*

		● use informal language to describe parts		
Power standard #10: Solve addition and subtraction word problems, and add and subtract within 10-, e.g., by using objects or drawings to represent the problem.	*CCSS.MATH.CONTENT.K.OA.A.1* *Represent addition and subtraction with objects, fingers, mental images, drawings1, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.* *CCSS.MATH.CONTENT.K.OA.A.3* *Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).* *CCSS.MATH.CONTENT.K.OA.A.4* *For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.*	Concepts: ● solve ● addition ● subtraction ● read ● word problems ● recognize ● write ● count ● compose ● decompose ● equations Skills: ● solve addition word problems ● solve subtraction word problems ● read word problems ● recognize key terms: put together, take apart, in all, are left, take away, total, equal, all together, sum, difference, groups etc. ● write numbers 1-10 ● write an addition sentence ● write a subtraction sentence ● decompose numbers within 10 ● compose numbers within 10 ● count from 1 to 10 ● count on from any given number to 10	❖ *GoMath Text Book* ❖ *GoMath Practice Book* ❖ *ThinkCentral Homework* ❖ *Number line*		*By the end of kindergarten*

Math Power Standard for Grade __1___	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard #1: 1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on, making ten, decomposing a number leading to ten, using the relationship between addition and subtraction, and creating equivalent but easier or known sums.		<u>Concepts</u> Demonstrating fluency Strategies Relationship Add Subtract Counting on Making ten Decomposing Equivalent Sums <u>Skills</u> Add within 20 Subtract within 20 Counting on Creating equivalent but easier/known sums Decomposing number leading to 10	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Rocket Math* • *Ten frame* •		By end of first grade
Power Standard #2 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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.1.NBT.6		<u>Concepts</u> Subtract Multiples Range Positive Zero Differences Models Drawings Place Value Operations Relationships <u>Skills</u> -Subtract multiples of 10 in the range of 10-90 -Use concrete models or drawings -Use strategies based on place value -Use properties of operations -Use the relationship between addition and subtraction -Relate the strategy to a	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Rocket Math*		By end of first grade

		written method -Explain the reasoning used.			
Power Standard #3 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. 1.NBT.5		*Concepts* ● Two-digit number ● More ● Less ● Reasoning ● Mental *Skills* ● Mentally find 10 more or 10 less ● Explain the reasoning used ● Understand a two-digit number (ones/tens) ● Without having to count	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		By end of first grade
Power Standard #4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.1.MD.4		*Concepts* ● Organize ● Represent ● Interpret ● Ask and answer questions ● Total number ● Data ● Category ● More ● Less ● Data points *Skills* ● Organize data ● Represent data ● Interpret data ● Tell how many more in a category ● Tell how many less in a category ● Answer questions about the total number of data points ● Ask questions about the total	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		By end of first grade

		number of data points			
Power Standard #5 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape 1.G.2		*Concepts* ● Shapes ● Compose ● Two-dimensional shapes ● Three-dimensional shapes ● Composite shape Skills ● Compose two-dimensional shapes ● Compose three-dimensional shapes ● Create a composite shape ● Compose new shapes from the composite shape	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		By end of first grade
Power Standard #6 Tell and write time in hours and half-hours using analog and digital clocks. 1.MD.3		*Concepts* ● Time ● Analog clocks ● Digital clocks ● Hours ● Half-hours *Skills* ● Tell time ● Write time ● Tell time in hours using an analog clock ● Tell time in hours using a digital clock	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		By end of first grade

		● Tell time in half-hours using an analog clock ● Tell time in half-hours using a digital clock			

Math Power Standard for Grade __2___	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard #1: **2.OA.1.** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	Represent and solve problems involving addition and subtraction.	● *add* ● *subtract* ● *word problems* ● *1-step problem* ● *2-step problem* ● *take from* ● *put together* ● *take apart* ● *compare* ● *drawings* ● *equations* ● *symbols*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		*By the end of second grade*
Power Standard #2: **2.OA.2**. Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.	Add and subtract within 20.	● *fluency* ● *add* ● *subtract* ● *1-digit number* ● *2-digit number* ● *sums* ● *mental strategies* ● *memory*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		*By the end of second grade*
Power Standard #3: **2.OA.3.** Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to	Work with equal groups of objects to gain foundations for multiplication.	● *determine* ● *group* ● *objects* ● *odd* ● *even* ● *pairing objects*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentral Homework*		*By the end of second grade*

express an even number as a sum of two equal addends.		*● counting by 2s* *● equation* *● express even number* *● sum* *equal addends*			
Power Standard #4: **2.OA.4.** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	*addition*	*● addition* *● objects* *● arrange* *● arrays* *● columns* *● rows* *● equation* *● addend* *● equal addends* *sum*	*● GoMath Text Book* *● GoMath Practice Book* *● ThinkCentral Homework*		*By the end of second grade*
Power Standard #5: **2.NBT.1.** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.	Understand place value.	*● digit* *● 3-digit numbers* *● amounts* *● hundreds* *● tens* *● ones* *equal*	*● GoMath Text Book* *● GoMath Practice Book* *● ThinkCentral Homework*		*By the end of second grade*
Power Standard #6: **2.NBT.2.** Count within 1000; skip-count by 2s, 5s, 10s, and 100s	*skip count*	*● count* *skip-count*	*● GoMath Text Book* *● GoMath Practice Book* *● ThinkCentral Homework*		*By the end of second grade*
Power Standard #7: **2.NBT.7.** Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the	*place value and addition*	*● add* *● subtract* *● concrete models* *● drawings* *● place value* *● properties of operations*	*● GoMath Text Book* *● GoMath Practice Book* *● ThinkCentral Homework*		*By the end of second grade*

strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.		● *relationship between addition and subtraction* ● *a written method* ● *3-digit number* ● *hundreds* ● *tens* ● *ones* ● *decompose* ● *compose*			
Power Standard #8: **2.NBT.9.** Explain why addition and subtraction strategies work, using place value and the properties of operations.	*place value*	● *addition* ● *subtraction* ● *strategies* ● *place value* *properties of operations*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentr al Homework*		*By the end of second grade*
Power Standard #9: **2.MD.5.** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	*adding and subtracting within 100*	*addition* *subtraction* *word problems* *lengths* *units* *drawings* *rulers* *equations* *symbol* *unknown numbers*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentr al Homework*		*By the end of second grade*
Power Standard #10: **2.G.2.** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	*Partition*	● *Partition* ● *rectangle* ● *rows* ● *columns* ● *same-size* ● *count* ● *total number*	● *GoMath Text Book* ● *GoMath Practice Book* ● *ThinkCentr al Homework*		*By the end of second grade*

Math Power Standard for Grade _3____	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard #1 **3.OA.5.** Apply properties of operations as strategies to multiply and divide. Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15, then 15 × 2 = 30, or by 5 × 2 = 10, then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.)	*CCSS.MATH.CONTENT.3.OA.A.1* *Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.*	*Concepts* • Properties • Operations • Associative • Distributive • Properties of Operations • Commutative Property • Associative Property • Distributive Property • Strategies • Multiply • Divide *Skills* • Apply properties of operations to multiply • Apply properties of operations to divide • Use strategies to multiply • Use strategies to divide • Know multiplication facts • Know the commutative property of multiplication • Know the associative property of multiplication • Know the distributive property of multiplication • Find the answer when applying the distributive property. • Find the answer when applying commutative property (reversing the order of the factors) • Find the answer when applying the associative property	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* **Plan:** *October*
Power Standards #2 **3.OA.7.** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. **By the end of Grade 3, know from memory all products of two one-digit numbers**	*CCSS.MATH.CONTENT.3.OA.A.1* *Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.* *CCSS.MATH.CONTENT.3.OA.A.2* *Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.*	*Concepts* • Relationships between multiplication and division • Properties of Operations • Fluently • Operations • Products • One-digit numbers • Digit • Relationship • Multiplication • Division • Strategies *Skills* • Fluently multiply within 100 • Fluently divide within 100 • Know from memory all products of two one-digit numbers • Know properties of operations • Use strategies as relationship between multiplication and division • Use properties of operations	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan:* *November*

		Concepts			
Power Standards #3 **3.OA.8.** Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	CCSS.MATH.CONTENT.3.OA.C.7 *Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.*	<u>Concepts</u> • Two-step • Word problems • Four operations • Equations • Letter • Reasonableness • Answers • Unknown quantity • Mental Computation • Estimation • Rounding <u>Skills</u> • Solve two-step word problems • Use the four operations • Representation of the problems • Use equations with a letter • Assess the reasonableness of answers • Use mental computation strategies • Use estimation strategies • Use rounding strategies	• GoMath Text Book • GoMath Practice Book • ThinkCentral Homework • Freckle.com		*By the end of third grade.* *Plan: September* *Big Idea:*
Power Standards #4 **3.NBT.2.** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	CCSS.MATH.CONTENT.3.NBT.A.1 *Use place value understanding to round whole numbers to the nearest 10 or 100.*	<u>Concepts</u> • Addition • Subtraction • 1000 • Place value • Strategies • Algorithms • Properties of Operations • Relationships between addition and subtraction <u>Skills</u> • Fluently add within 1000 • Fluently subtract within 1000 • Use strategies based on place value • Use strategies based on properties of operations • Use strategies based on the relationship between addition and subtraction • Use algorithms based on place value • Use algorithms based on properties of operations • Use algorithms based on the relationship between addition and subtraction	• GoMath Text Book • GoMath Practice Book • ThinkCentral Homework • Freckle.com	**Formative:** • Oral assessments • GoMath Practice book • Create a quiz a partner in a small groups. • White board problems • Binder of assessments	*By the end of third grade.* *Plan: August* *Essential Question: Can students fluently add and subtract within 1000?*
Power Standards #5 **3.MD.3.** Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	**3.NBT.2.** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	<u>Concepts</u> • Scaled picture graph • Scaled bar graph • Data • Categories • One-step problems • Two-step problems • "How many more?" • "How many less?" • Scale • Key <u>Skills</u> • Draw a scaled picture graph in which each picture represents a specific value • Draw a scaled bar graph in which each square represents a specific value	• GoMath Text Book • GoMath Practice Book • ThinkCentral Homework • Freckle.com		*By the end of third grade.* *Plan: December*

		Concepts / Skills	Resources		Timeline
		• Represent a data set with several categories • Use information from the scaled bar graph • Solve one-step problems -"how many more?" • Solve one-step problems-"how many less?" • Solve two-step problems - "how many more?" • Solve two-step word problems - "how many less?"			
Power Standard #6 **3.NF.1.** Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a part of size 1/b.	*CCSS.MATH.CONTENT.3.NF.A.2* *Understand a fraction as a number on the number line; represent fractions on a number line diagram.*	<u>Concepts</u> • Fractions 1/b • Part • Whole • Equal parts • Quantity <u>Skills</u> • Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts • Understand a fraction a/b as the quantity formed by a part of size 1/b	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan: January*
Power Standard #7 **3.NF.3**. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	**3.NF.1.** Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a part of size 1/b.	<u>Concepts</u> • Fractions • Equivalence • Size • Equivalent Fractions <u>Skills</u> • Explain equivalence of fractions in special cases • Compare fractions by reasoning about their size	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan: February* *Essential Question: Can students find the equivalence of a fraction?*
Power Standard #8 **3.NF.3a.** Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	**3.NF.1.** Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a part of size 1/b.	<u>Concepts</u> • Fractions • Equal • Equivalent • Equivalent Fractions • Point • Number line • Size <u>Skills</u> • Understand two fractions as equivalent if they are the same size • Understand two fractions as equivalent if they are the same point on a number line	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan: March*

Power Standard #9 **3.G.1.** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	*CCSS.MATH.CONTENT.3.G.A.2* *Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.*	<u>Concepts</u> • Shapes • Different • Categories • Subcategories • Attributes • Rhombus • Rectangle • Quadrilateral • Square • Sides • Define • Belong • Shared <u>Skills</u> • Understand that shapes belong to different categories • Understand that shapes may share attributes • Understand that the shared attributes can define a larger category • Recognize rhombuses as an example of a quadrilateral • Recognize rectangles as an example of a quadrilateral • Recognize squares as an example of a quadrilateral • Draw examples of quadrilaterals • Draw examples of quadrilaterals that do not belong to a subcategory	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan:* *May*
Power Standard #10 **3.G.2.** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape.	**3.G.1.** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	<u>Concepts</u> • Partition • Shapes • Parts • Equal • Equal Areas • Unit Fraction • Whole • Express • Describe <u>Skills</u> • Partition shapes into parts with equal areas • Express the area of each part as a unit fraction of the whole. • Partition a shape into 4 parts with equal area • Describe the area of each part as ¼ of the area of the shape.	• *GoMath Text Book* • *GoMath Practice Book* • *ThinkCentral Homework* • *Freckle.com*		*By the end of third grade.* *Plan: April*

Math Power Standard for Grade 4	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard #1 4.OA.1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.	Multiplication equation as a comparison Verbal statements of multiplicative comparison Multiplication equations	*Concepts* ● multiplication equation as comparison ● verbal statements ● multiplicative comparison ● multiplication equations *Skills* ● Interpret a multiplication equation as a comparison, ● Represent verbal statements of multiplicative comparisons ● Represent verbal statements as multiplication equations.	GoMath Textbook GoMath Practice Book ThinkCentral Homework Freckle.com		Plan: September Essential Question:
Power Standard #2 4.OA.3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	Multi-Step word problems with whole numbers Letter standing for the unknown quantity Interpreting remainders Mental computation Rounding	*Concepts* ● multi-step word problems ● whole numbers ● four operations ● remainders ● equations ● letter standing for the unknown quantity ● reasonableness ● mental computation ● estimating strategies ● rounding *Skills* ● solve multistep word problems posed with whole numbers and whole number answers ● use four operations ● interpret remainders ● represent problems using equations with a letter standing for the unknown quantity ● assess for reasonableness of answer using mental computations ● assess for reasonableness of answer using estimations strategies ● assess for reasonableness of answer using rounding	GoMath Textbook GoMath Practice Book ThinkCentral Homework Freckle.com		Plan: January Essential Question:

Power Standard #3 4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	Factors of whole numbers in range 1-100 Whole numbers as factors Whole numbers as a multiple of its factors Prime and composite	<u>Concepts</u> ● factor pairs ● whole number ● multiple ● factors ● prime ● composite <u>Skills</u> ● find factor pairs for whole numbers to 100 ● recognize a multiple ● recognize a factor ● determine if a number is prime or composite	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *February* *Essential Question:*
Power Standard #4 4.NBT.5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Multi-digit multiplication Place value Rectangular arrays Area models	<u>Concepts</u> ● whole number ● place value ● properties of operations ● equations ● rectangular arrays ● area models ● four digit number ● one digit number ● two digit number <u>Skills</u> ● multiply whole number by a number up to 4 digits ● multiply 2 two-digit numbers ● use strategies for place value and properties of operations ● illustrate and explain by using equations, rectangular arrays, area models	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *October* *Essential Question:*
Power Standard #5 4.NBT.6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.	Whole-number quotients and remainders Multiplication/division relationship Rectangular arrays Area models	<u>Concepts</u> ● whole number quotients ● remainders ● four-digit dividends ● one -digit divisor ● place value ● properties of operations ● multiplication & division (fact family) ● equations ● rectangular arrays ● area models <u>Skills</u> ● find whole number quotients with up to four digit dividends and one digit divisors ● find remainders with up to four digit dividends and one digit divisors ● use strategies for place value ● use strategies for properties of operations	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *November/ December* *Essential Question:*

		● use the relationship between multiplication and division ● illustrate and explain using equations ● illustrate and explain using rectangular arrays ● illustrate and explain using area models			
Power Standard #6 4.NBT.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.	Base-ten numerals Expanded form Comparisons	*Concepts* ● multi-digit whole numbers ● base-ten numerals ● number names ● expanded form ● two multi digit numbers ● symbols <,>, = ● comparisons *Skills* ● read multi-digit whole numbers using base-ten numerals, number names, expanded form ● write multi-digit whole numbers using base-ten numerals, number names, expanded form ● compare two multi-digit numbers ● use symbols <,>,= ● record results of comparisons	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*	Oral assessments Quiz students and they write on white boards. Exit tickets Binder of assessments with notes about observations	*Plan:* *August* *Essential Question:* *How can you use place value to compare, add and subtract, and estimate with whole numbers?*
Power Standard #7 4.NF.1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	Fraction models Separating and joining parts referring to the same whole Equivalent fractions	*Concepts* ● fraction ● equivalent ● equivalent fractions ● visual fraction models *Skills* ● Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. ● using principles to recognize and generate equivalent fractions	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *March* *Essential Question:*
Power Standard #8 4.NF.3a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	Joining and separating parts referring to the same whole Addition and subtraction of fractions	*Concepts* ● Addition ● subtraction ● fractions ● parts referring to the same whole *Skills* ● understand addition of fractions as joining parts ● understand subtraction of fractions as separating parts	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework*		*Plan:* *April* *Essential Question:*

			Freckle.com		
Power Standard #9 4.MD.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),	Units of measurement (metric and standard) Express measurements in larger units of a smaller unit Convert measurements	<u>Concepts</u> ● relative size ● measurement units ● one system of units ● larger unit in terms of a smaller unit ● measurement equivalents ● two-column table ● length ● conversion table <u>Skills</u> ● Know relative sizes of measurement units within one system of units ● Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. ● Record measurement equivalents in a two-column table ● express length in two units ● generate a conversion table	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *May* *Essential Question:*
Power Standard #10 4.MD.2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale	Units of measurement Number line diagrams Measurement scales	<u>Concepts</u> ● four operations ● distances ● intervals of time ● liquid volumes ● masses of objects ● money ● simple fractions ● simple decimals ● measurements quantities ● diagrams ● number line diagrams ● measurement scale <u>Skills</u> ● use found operations to solve word problems involving distances including problems involving simple fractions ● use found operations to solve word problems involving distances including problems involving simple decimals ● use found operations to solve word problems involving intervals of time including problems involving simple decimals ● use found operations to solve word problems involving intervals of time including problems involving simple factions ● use found operations to solve word problems involving liquid volumes	*GoMath Textbook* *GoMath Practice Book* *ThinkCentral Homework* *Freckle.com*		*Plan:* *May* *Essential Question:*

		- including problems involving simple decimals - use found operations to solve word problems involving liquid volumes including problems involving simple fractions - use found operations to solve word problems involving masses of objects including problems involving simple decimals - use found operations to solve word problems involving masses of objects including problems involving simple factions - use found operations to solve word problems involving money including problems involving simple factions - use found operations to solve word problems involving money including problems involving simple decimals - Represent measurement quantities using diagrams that feature a measurement scale - Represent measurement quantities using number line diagrams that feature a measurement scale			

Math Power Standard for Grade _5____	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Power Standard 1 **Express a whole number in the range 2–50 as a product of its prime factors. For example, find the prime factors of 24 and express 24 as 2 × 2 × 2 × 3.**	multiplication	- Whole Number - range - product - prime factors	*Go Math text* *graphic organizers* *factors chart* *math notebook* *Freckle Khan Academy*		*October with* *add subtract with uncommon denominators*
Power Standard 2 *A***dd, 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**	round numbers estimate add/subtract multiply divide	- decimals - hundredths - concrete models - drawings - strategies - place value - operations - relationship - addition - subtraction - written method - reasoning Adding decimals - Subtracting decimals - Multiplying decimals - Dividing decimals - Using concrete models - Using drawings - Using strategies - Using place value - Using properties of operations - Using the relationship between addition and subtraction - Relate the strategy to a written method - Explain reasoning used - Rounding decimals to the nearest hundre	*Go Math text* *graphic organizers* *factors chart* *math notebook* *Freckle Khan Academy*		*Sept* *add subtract decimals* *August* *divide decimals* *multiply divide decimals* *double digit division*

Power Standard 3 **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.**	find GCF LCF multiply divide	● fractions ● unlike denominators ● mixed numbers ● equivalent fractions ● equivalent sum ● equivalent difference ● like denominators Adding fractions with unlike denominators ● Subtracting fractions with unlike denominators ● Common denominators ● Replacing fractions with equivalent fractions ● Produce an equivalent sum of fractions ● Produce an equivalent difference of fractions	*Go Math text* *graphic organizers* *math notebook* *Freckle Khan Academy*		*August* *divide fractions* *Sept* *add/subtract fractions common denominator* *October* *uncommon denominator with GCF LCF*
Power Standard 4 **Solve real-world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.**	find GCF LCF multiply divide reading comprehension	● real-world problems ● multiplication ● fractions ● mixed numbers ● visual fraction models ● equations ● problems ● Solve real world problems ● Solve word problems ● Multiplication of fractions ● Multiplication of mixed numbers ● Using visual fraction models ● Using equations to represent the problems	*Go Math text* *graphic organizers* *math notebook* *Freckle Khan Academy*		*Sept multiply fractions*
Power Standard 5 **Convert among different-sized standard measurement units within a given measurement system**		● different-sized ● standard measurement units ● measurement system ● conversions ● multi-step ● real-world problems ● Convert standard measurement units using metric system ● Convert standard measurement units using customary (US) system	*Go Math text* *graphic organizers* *math notebook* *Freckle Khan Academy*		

		- Use conversions solving multi-step problems - Use conversions solving real-world problems			
Power Standard 6 **Recognize volume as an attribute of solid figures and understand concepts of volume measurement. 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.**		- volume - attribute - solid figures - concepts - volume measurement - unit cube - cubic unit - measure - packed without gaps - packed without overlaps - Recognize volume (vs area) as an attribute of solid figures - Understand volume measurement - Understand a cube with a side length of one unit is called a unit cube - Understand a unit cube is one cubic unit - Understand that unit cubes can be used to measure volume - Understand that a shape can be packed with n cubes without gaps or overlaps - Understand that the number of cubes is equal to the volume (cubic units)	*Go Math text* *graphic organizers* *math notebook* *Freckle Khan Academy*		
Power Standard 7 **the direction of one axis, and the second number 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 r 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.,**	graphing	- perpendicular - number lines - perpendicular number lines - axes - coordinate system - intersection - origin - line - point - plane - ordered pair - numbers - coordinates - first number - first axis - direction - second number - second axis	*Go Math text* *graphic organizers* *math notebook* *Freckle Khan Academy* *graph paper*		*March*

x-axis and x-coordinate, y-axis and y-coordinate)					
		• convention			
		• two axes			
		• x-axis			
		• y-axis			
		• x-coordinate			
		• y-coordinate			
		• horizontal (not required)			
		• vertical (not required)			
		• Use a pair of perpendicular number lines as axes			
		• Define a coordinate system			
		• Locate the origin on a coordinate system (0,0)			
		• Recognize x-axis			
		• Recognize y-axis			
		• Recognize x-coordinate (x,y)			
		• Recognize y-coordinate (x,y)			
		• Use an ordered pair of numbers			
		• Understand first number indicates how far to travel (horizontally) from the origin on the first axis with the convention of the axis being called the x-axis			
		• Understand first number indicates how far to travel (horizontally) from the origin on the first axis with the convention of the first point begin called the x-coordinate			
		• Understand second number indicates how far to travel (vertically) from the origin on the second axis with the convention of the axis being called the y-axis			
		• Understand second number indicates how far to travel (vertically) from the origin on the second axis with the convention of the second point being called the y-coordinate			
		•			

Math Power Standard for Grade __6___	*Support Standards Used*	*Concepts and Skills Addressed in Standard*	*Materials Used-Text, Teacher Created, Digital Components, etc.*	*Assessments used for Mastery-Formative and Summative*	*Approximate Time Frame for Student Mastery*
6 RP.2 Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship.		● unit rate a/b ● ratio ● rate ● ratio relationship			*March*
6.RP.3a Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.		● tables of equivalent ratios ● whole number measurements ● coordinate plane ● ratios			*April*
6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem		● quotients of fractions ● word problems ● division of fractions by fractions ● visual fraction models ● equations			*November* *divide fractions*

6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.		- multi-digit decimals - standard algorithm - operation			*October* *divide decimals*
6.NS.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.		- real-world problems - mathematical problems - points - four quadrants - coordinate plane - absolute value - distances - coordinate			*March*
6.EE.3 Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.		- properties of operations - equivalent expressions - distributive property - expression			*May*

6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q and x are all nonnegative rational numbers		- real-world mathematical problems - mathematical problems - equations of the form x + p = q - equations of the form px = q - nonnegative rational numbers			
6.G.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.		- composing - decomposing - area - right triangles - triangles - special quadrilaterals - polygons - rectangles - shapes - techniques - real-world problems - mathematical problems			*April*

6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\,w\,h$ and $V = b\,h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.		- volume - right rectangular prism - fractional edge lengths - unit cubes - prism - formulas $V = l\,w\,h$ and $V = b\,h$ - mathematical problems			
6.SP.5 Summarize numerical data sets in relation to their context, such as by: c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.		- numerical data - context - quantitative measures of center - median - mean - measures of variability - interquartile range - mean absolute deviation - pattern - deviations - reference - data			

Math Power Standard for Grade _7____	Support Standards Used	Concepts Addressed in Standard	Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
7.RP.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.		- Rates - Complex Fractions - Unit Rates - Conversion - Percent - Sales tax - Interest - Discount - Mark-up	*Divide fractions* *Compute unit rates with ratios as fractions* *Compute rates with like and different units* *Understand the purpose of unit rates* *Compute ratios involving lengths, areas, and other quantities* *Understand the relationship between a percent and a ratio and a fraction and a decimal* *Convert fractions to decimals to percents and vice versa* *Find the percent of a number* *Compute the percent of change* *Understand the meaning and effect discount, tax, interest, and mark-up have on a value* *Solve financial literacy problems with simple interest, sales tax,*	*Go Math Math 7* *Freckle* *my.hrw.com*		Nov.

			tips, markups, and discounts		
7.RP.2 Recognize and represent proportional relationships between quantities. a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin. b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. c. Represent proportional relationships by equations. d. Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r) where r is the unit rate.		*Equivalent Ratios* *Proportional* *Relationships* *Slope* *Direct Variation*	*Create and solve equivalent ratios* *Understand and identify when two quantities are proportional by testing with equivalent ratios* *Graph ratios on a coordinate plane Understand the relationship and define x and y* *Connect constant rate of change with slope and direct variation* *Use graphs, equations, and diagrams to identify the constant of proportionality* *Write equations representing proportional relationships* *Explain what points on a graph of a proportional relationship mean including the origin and unit rate*	*Go Math Math 7* *Freckle* *my.hrw.com*	
7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.		*Integers* *Absolute Value* *Number line* *Complex fractions*	*Graph negative numbers on a number line* *Divide fractions* *Change fractions to decimals and vice versa*	*Go Math Math 7* *Freckle* *my.hrw.com*	==Aug/Sept/Oct==

		Four operations *with integers and* *rational numbers* *Terminating* *Repeating decimals* *Conversion*	*Understand the difference between terminating and repeating decimals* *Understand the difference between a rational number and an integer* *Understand the meaning of absolute value and its implication in real world problems* *Apply and extend previous understandings of operations with fractions and decimals to add, subtract, multiply and divide rational numbers* *Solve real world problems using rational numbers and the four operations* *Solve mathematical problems using rational numbers and the four operations*			

| 7.EE.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. | | Integers

Rational numbers

Four operations

Conversion

Mental

computation

Estimation

strategies

sequences

Properties of

Operations

Distributive

Property

Linear expressions

Order of Operation | *Understand the difference between rational numbers and integers*

Understand the difference between linear and nonlinear and an expression and an equation

Solve positive and negative rational number problems

Solve multi-step positive and negative decimal and fraction problems

Solve problems using order of operations

Manipulate the properties of operations and the distributive property

Use mental math, facilitate estimation, and discover the reasonableness of an answer | *Go Math Math 7*

Freckle

my.hrw.com | | <mark>Jan./ Feb</mark> |

7.EE.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.		*Variables* *Linear Expressions* *Four Operations* *Distributive Property* *Properties of Operations* *Coefficients* *Inequalities* *Equations* *Rational numbers* *Sequence* *Graphing* *Solution set* *Like terms* *Constants* *Order of operations*	*Understand the meaning of a variable* *Knowing new terms such as like terms, coefficients, constants* *Identify and combine like terms* *Know the different inverse properties* *Solve ratio word problems* *Model equations* *Solve equations* *Solve two step equations* *Prove solutions by replacing the variable with found answer* *Identify inequalities in real-world applications* *Graph inequalities on the number line* *Compare solutions of equations* *Understand the graph and what it represents*	Go Math Math 7 Freckle my.hrw.com		March

7.G.1 Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.		Ratios Geometric figures Length Scale drawings Conversion	Use ratios and proportions to solve scale drawing problems Determine if shapes are similar or congruent Calculate the side lengths and angle measures Understanding the difference between similar and congruent Construct scale drawings	Go Math Math 7 Freckle my.hrw.com		April
7.G.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle		Area Circumference Ratio Diameter Radius Pi	Understand that pi is an irrational number Identify the different parts of a circle Use a formula and input data to find a solution Understand the relationship between the circumference and area of a circle Understand the ratio between the circumference and the diameter of a circle Solve real-life and mathematical	Go Math Math 7 Freckle my.hrw.com		April

			problems for the circumference *Solve real-life and mathematical problems for the area of circles*			
7.G.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.		*Supplementary* *Complementary* *Vertical* *Adjacent* *Triangle* *Right angles* *Obtuse* *Acute*	*Classify angles* *Identify adjacent and vertical angles* *Understand that vertical angles are congruent* *Write and solve equations for angle measure problems* *Understand and use facts about supplementary, complementary, vertical, and adjacent angles to solve problems* *Solve real life and mathematical problems involving angle measure including multi-step problems*	*Go Math Math 7* *Freckle* *my.hrw.com*		*April*
7.G.6 Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed		*Area* *Volume* *Surface Area* *Prisms* *Pyramids* *Polygons*	*Identify different 2D and 3D figures* *Understand the different measurements of 2D and 3D figures* *Understand the exponents and units associated*	*Go Math Math 7* *Freckle* *my.hrw.com*		*April*

of triangles, quadrilaterals, polygons, cubes, and right prisms		*Cubes* *3D figures/objects*	*with area and volume measurements* *Know the different formulas for area and volume* *Understand the relationship between surface area and volume of 3D objects* *Find the area of composite figures* *Find the volume of prisms and cubes* *Compute the surface area of 3D prisms* *Solve real-life and mathematical problems for the area of two-dimensional objects composed of polygons* *Solve real-life and mathematical problems for the volume of 3D objects composed of prisms and cubes*			
7.SP.1 Understand that statistics can be used to gain information about a population by examining a sample of the population;		*Biased and unbiased samples* *Data* *Populations*	*Understand the basis of statistics* *Understand the difference between valid and invalid,*	*Go Math Math 7* *Freckle* *my.hrw.com*		<mark>May</mark>

generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.		*Validity* *Predictions*	*biased and unbiased samples* *Understand random sampling and other types of valid sampling* *Understand how generalizations about a population can be made*		
7.SP.4 Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.		*Median* *Mean* *Mode* *Range* *Quartile* *IQR* *Mean Absolute Deviation* *Inferences* *Populations* *Outlier*	*Draw informal inferences about populations* *Compute median, mean, mode, range, quartiles, IQR, and M.A.D.* *Use measures of center tendencies* *Use measures of variability* *Interpret different data sets: graphs, dot plots, box plots, tables* *Create different data displays*	*Go Math Math 7* *Freckle* *my.hrw.com*	
7.SP.7 Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if		*Probability* *Frequency* *Model* *Outcomes*	*Calculate the probabilities of events* *Understand discrepancies found in events*	*Go Math Math 7* *Freckle* *my.hrw.com*	

the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. b. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process		*Tree diagrams* *Permutations* *Independent and dependent events* *Theoretical* *Experimental* *Compound events* *Simulations* *Fundamental Counting Principle*	*Analyze probabilities models* *Create simulations and probability model* *Understand the difference between theoretical and experimental probabilities* *Compute permutations* *Compute using the fundamental counting principle*		

Math Power Standard for Grade __8___	Support Standards Used	Concepts and Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
NS2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions		• rational numbers • rational approximations • irrational numbers • number line diagram • value of expressions • size • Use rational approximations of irrational numbers • compare the size of irrational numbers • locate them approximately on a number line diagram • estimate the value of expressions	*Go Math Math 8* *Freckle* *my.hrw.com*		

Math Power Standard for Grade ALGEBRA 1	Support Standards Used	Concepts Addressed in Standard	Skills Addressed in Standard	Materials Used-Text, Teacher Created, Digital Components, etc.	Assessments used for Mastery-Formative and Summative	Approximate Time Frame for Student Mastery
Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define 51/3 to be the cube root of 5 because we want (51/3)3= 5(1/3)3 to hold, so (51/3)3 must equal 5		*Concepts: Need to Know* ● Rational numbers ● Rational Exponents ● Properties Integers ● Integer Exponent ● Notation ● Radicals ● Root	*Skills: Be Able to Do* ● Explain meaning of rational exponents ● Explain properties of exponent integers ● Explain relationship rational exponents and properties of exponent integers. ● Explain notation for radicals ● Explain radicals in terms of rational exponents			August
Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays		*Concepts* ● Units ● Solutions ● Multi-step Problems ● Word Problems ● Formulas ● Scale ● Ratio ● Origin in graphs ● Properties of a graphs ● data displays	*Skills* ● Use units to understand problem ● Use units to guide solutions ● Use unites to guide multi-step problems ● Chose units consistently in formula ● Interpret units consistently in formula ● Chose the scale ● Interpret the scale			August September

			● Choose the origin in graphs ● Interpret the origin in graphs ● Chose the data display ● Interpret the data display			
Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.		*Concepts* ● Simple equations ● steps of an equation ● equality ● assumptions ● original equation ● solution ● viable arguments ● justify ● solution method	*Skills* ● Explain each step in solving simple problem ● Explain steps from the equality of numbers for previous step ● Construct a viable argument ● Construct a viable argument to justify solution method			
Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.		*Concepts* ● Produce ● Equivalent ● Equivalent form ● Expression ● Properties ● Properties of the expression ● Quantity ● Quantity of the expression	*Skills* ● Produce an equivalent form of an expression ● Reveal properties of the quantity represent of the expression ● Explain properties of the quantities of the expression ● Choose an equivalent form of an expression			
Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add,		*Concepts* ● Polynomials ● System ● Analogous ● Integers ● Closed ● Operations of Addition, Subtraction,	*Skills* ● Understand a polynomial ● Understand polynomial form a system of analogous (simpler monomials)			November

subtract, and multiply polynomials		and Multiplication	• Understand that they are closed operations of addition • Understand that they are closed operations of subtraction • Understand that they are closed operations of multiplication			
Explain why the x-coordinates of the points where the graphs of the equations y = f(x) and y = g(x) intersect are the solutions of the equation f(x) = g(x); find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where f(x) and/or g(x) are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.		*Concepts* • X-Coordinates • Points • Graph • Equation • Intersect • Solutions • Linear • Polynomials • Rational • Absolute Value • Exponential • Logarithmic Functions	*Skills* • Explain x-coordinates of points • Explain where the graphs intersect • Explain that they are solutions to an equation • Find solutions for linear • Find solutions for polynomial • Find solutions for rational • Find solutions for absolute value • Find solutions for exponential • Find solutions for logarithmic functions • Find estimated solutions for linear • Find estimated solutions for polynomial • Find estimated solutions for rational • Find estimated solutions for absolute value			September

			● Find estimated solutions for exponential ● Find estimated solutions for logarithmic functions			
Distinguish between situations that can be modeled with linear functions and with exponential functions		*Concepts* ● Situation ● Linear Functions ● Exponential Functions	*Skills* ● Distinguish between situation ● Distinguish ways of modeling with linear functions ● Distinguish ways modeling with exponential function			
Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data		● Categorical ● Categorical Data ● Frequency ● Frequency table ● two-frequency ● Relative Frequency ● Context of data ● Joint frequencies ● Marginal frequencies ● conditional Relative frequencies ● association data ● data trends	● Summarize Categorical data ● Summarize two-way frequency table ● Interpret relative frequencies ● Interpret joint frequencies ● Interpret marginal frequencies ● Interpret conditional relative frequencies ● Recognize association data ● recognize trends in data			
Represent data with plots on the real number line (dot plots, histograms, and box plots)		*Concepts* ● Data ● Plots ● Real Numbers ● Dot Plots ● Histograms ● Box Plots	*Skills* ● Represent data with dot plots ● represent data with histograms ● represent data with box plots			

Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.		*Concepts* ● System ● Simple System ● Linear equation ● Quadratic equation ● variables ● two variables	*Skills* ● Solve simple system ● Solve simple system using linear equation ● Solve simple system using linear equation with two variables algebraically ● Solve simple system using linear equations with two variables graphically ● Solve simple system using quadratic equation ● Solve simple system using quadratic equation with two variables algebraically ● Solve simple system using quadratic equation with two variables graphically			