FEB Fifth Grade Curriculum Map

Reading				
Unit/Timeline	Content/ Skills	Standards	Key Words	Assessment
1 – Nonfiction: Narrative, Non–Narrative, and Mash–Up Texts September–October	Goals: ● Readers use what they know about text structure to identify key ideas and details. ● Readers notice a shift in overall structure and internal structure and switch their approach to reading, thinking, and jotting as needed. ● Readers synthesize ideas and information across multiple texts and media and become teachers of others. ● Readers use strategies to figure out unfamiliar vocabulary.	5R1: Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences. 5R3: In informational texts, explain the relationships or interactions between two or more individuals, events, ideas, or concepts based on specific evidence from the text 5R4: Determine the meaning of words, phrases, figurative language, academic, and content–specific words and analyze their effect on meaning, tone, or mood. 5R5: In informational texts, compare and contrast the overall structure in two or more texts using terms such as sequence, comparison, cause/effect, and problem/solution 5R8: Explain how claims in a text are supported by relevant reasons and evidence, identifying which reasons and evidence support which claims.	● Non–fiction Genre ● Visual and graphic features of nonfiction text ● Subtitles ● Headings ● Key terms ● Bold words ● Table of contents ● Glossary ● Main idea ● Supporting details ● Inferring ● Synthesizing ● Analyzing ● Summarizing ● Cause and effect ● Chronological ● Text Structure ● Context clues ● Implicity ● Point of view ● Author's Purpose ● Note taking	End of Unit Assessment: CommonLit – Sharks: Monsters or Misunderstood? & Should Students Wear Uniforms?
2 – Author Study November–December	Goals: ● Readers will read many	5R1: Locate and refer to relevant details and evidence when	● Literary elements ● Inferences	End of Unit Assessment:

	books by a particular author learning that particular author's characteristics or trademarks through setting, plot, character, and craft.
	● Readers will synthesize the themes across many texts to consider the author's overall message.
	● Readers will use conversation to deepen their understanding of the books and the author they are reading.
	● Readers will reflect and share how their thinking is moved or shaped by a particular author.
		explaining what a text says explicitly/implicitly and make logical inferences.
		
		5R2: Determine a theme or central idea and explain how it is supported by key details; summarize a text.
		
		5R3: In literary texts, compare and contrast two or more characters, settings, and events, drawing on specific details in the text.
		
		5R5: In literary texts, explain how a series of chapters, scenes, or stanzas fits together to determine the overall structure of a story, drama, or poem
		
		5R6: In literary texts, explain how a narrator's or speaker's point of view influences how events are described.
			● Point of View
			● Plot
			  ○ Rising Action
			  ○ Resolution
			  ○ Climax
			  ○ Falling Action
			  ○ Resolution
			● Problem / Conflict
			● Foreshadowing
			● Theme / Central idea
			● Symbolism
			● Text evidence
			● Author's Purpose
			● Analyze
			● Reflect
			● Text evidence
			● Summarize
				CommonLit –
				
				The Boy Who Cried Wolf
				
				&
				
				Tornado Coming!

3 – Making Claims Across Different Genres January–February	Goals: ● Readers make claims about a text's themes, conflicts, and influence of point of view. ● Readers adjust their strategies according to the genre of the text. ● Readers compare their claims across genres and texts. ● Readers support their claims with relevant	5R7: Analyze how visual and multimedia elements contribute to the meaning of literary and informational texts. 5R8: Explain how claims in a text are supported by relevant reasons and evidence, identifying which reasons and evidence support which claims 5R9: Use established criteria to categorize texts and make informed judgments about quality;	● Use inference to better understand text ● Sort and sift through information to answer questions ● Point of View ● Theme / Central idea ● Analyze ● Reflect ● Text evidence	End of Unit Assessment: CommonLit – Marian's Revolution & Who Are the Water Protectors?

	evidence and explanation. ● Readers use writing and conversation to deepen their understanding across texts.	make connections to other texts, ideas, cultural perspectives, eras, and personal experiences.		

4 – Comparing Themes Across Novels–Book Clubs
 	
April–June
	Goals:
	● Readers use close reading strategies to generate ideas about possible themes being addressed and to uncover the author's overall message.
	● Readers think about and develop themes across a text with evidence and explanation.
	● Readers establish routines for managing book clubs (if they are working in a book club).
	● Readers use conversation to deepen understanding of the larger story that is told.
	● Readers reflect and share how their thinking is moved or shaped throughout a book or across a series.
		5R2: Determine a theme or central idea and explain how it is supported by key details; summarize a text.
		
		5R5: In literary texts, explain how a series of chapters, scenes, or stanzas fits together to determine the overall structure of a story, drama, or poem. In informational texts, compare and contrast the overall structure in two or more texts using terms such as sequence, comparison, cause/effect, and problem/solution.
			● Use inference to better understand text
			● Sort and sift through information to answer questions
			● Literary elements
			● Inferences
			● Point of View
			● Plot
			  ○ Rising Action
			  ○ Resolution
			  ○ Climax
			  ○ Falling Action
			  ○ Resolution
			● Problem / Conflict
			● Foreshadowing
			● Theme / Central idea
			● Symbolism
			● Text evidence
			● Author's purpose
			● Analyze
			● Reflect
			● Text evidence
			● Summarize
				End of Unit Assessment:
				
				CommonLit –
				
				Mercury's Sandals
				
				&
				
				Thirteen and a Half

Writing			
Unit	Content/ Skills	Standards	Assessment
1–Take Action on Issues September–October	Goals: ● Writers learn and build powerful arguments from different media types on a particular topic. ● Writers take a solid stance (claim and argument) and support it with clear evidence. ● Writers persuade the reader by using voice, structure, and precise language. ● Writers use grammar and conventions to convey ideas precisely and powerfully.	5W1: Write an argument to support claims with clear reasons and relevant evidence. 5W1a: Introduce a precise claim and organize the reasons and evidence logically. . 5W1b: Provide logically ordered reasons that are supported by facts and details from various sources. 5W1c: Use precise language and content–specific vocabulary while writing an argument. 5W1d: Use appropriate transitional words, phrases, and clauses to clarify and connect ideas and concepts. 5W1e: Provide a concluding statement or section related to the argument presented. 5W1f: Maintain a style and tone appropriate to the writing task. 5W2: Write informative/explanatory texts to explore a topic and convey ideas and information relevant to the subject. 5W2a: Introduce a topic clearly, provide a general focus, and organize related information logically. 5W2b: Develop a topic with facts, definitions, concrete details, quotations, or other relevant information; include text	Persuasive Writing Essay

		features, illustrations, and multimedia to aid comprehension.	
		5W2c: Use precise language and content-specific vocabulary to explain a topic.	
		5W2d: Use appropriate transitional/linking words, phrases, and clauses to clarify and connect ideas and concepts.	
		5W2e: Provide a concluding statement or section related to the information or explanation presented.	
		5W2f: Establish a style aligned to a subject area or task	
2– Fan Fiction Writing November–December	Goals: ● Writers generate ideas for and plan fiction stories inspired by and based on literature. ● Writers elaborate using the elements of fiction and craft inspired by a piece of literature. ● Writers use grammar and conventions to convey ideas precisely and powerfully. ● Writers give and get feedback throughout the writing process.	5W3: Write narratives to develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences. 5W3a: Establish a situation and introduce a narrator and/or characters. 5W3b: Use narrative techniques, such as dialogue and description, to develop experiences and events or show the responses of characters to situations. 5W3c: Use a variety of transitional words, phrases, and clauses to manage the sequence of events. 5W3d: Use concrete words and phrases and sensory details to convey experiences and events precisely.	Narrative Literary Piece

		5W3e: Provide a conclusion that follows from the narrated experiences or events.	
3– Designing Presentations January–February	Goals: ● Writers collect, revisit, and play with ideas. ● Writers draft what they want to teach others about. ● Writers consider their audience and revise based on what they want and need to know. ● Writers give and get feedback.	5W4: Create a poem, story, play, artwork, or other response to a text, author, theme, or personal experience.	Making Claims Across Genres Essay
4– Speech Writing March	Goals: ● Writers select topics and refine those topics for appropriate focus. ● Writers explain their information using precise language, voice, and structure. ● Writers research and include that research when explaining their information. ● Writers use grammar and conventions to convey ideas precisely and powerfully.	5W6: Conduct research to answer questions, including self–generated questions, and to build knowledge through investigation of multiple aspects of a topic using multiple sources. 5W7: Recall relevant information from experiences or gather relevant information from multiple sources; summarize or paraphrase; avoid plagiarism and provide a list of sources.	Digital Literacy Speech
5– Threading Themes Together April–June	Goals: ● Writers consider and interpret themes as they read novels. ● Writers make claims across novels to prove a common theme and develop logical structures to support this work. ● Writers draft using specific references to novels as well as their own ideas to support their claims. ● Writers revise to be more precise, convincing and coherent.	5W5: Draw evidence from literary or informational texts to respond and support analysis, reflection, and research by applying the Grade 5 Reading Standards..	Comparing Themes Across a Series (Literary Essay)

	● Writers use grammar and conventions to convey ideas precisely and powerfully		

Science		
Unit 1: Space Systems: Stars and the Solar System–September–November		
Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking Questions and Defining Problems 2. Developing and Using Models 3. Planning and Carrying Out Investigations 4. Analyzing and Interpreting Data 5. Using Mathematics and Computational Thinking 6. Constructing Explanations and Designing Solutions 7. Engaging in Argument from Evidence 8. Obtaining, Evaluating, and Communicating Information	–The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center. (5–PS2–1) –The sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth. (5–ESS1–1) –The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. (5–ESS1–2)	1. Patterns 2. Cause and effect 3. Scale, proportion, and quantity 4. Systems and system models 5. Energy and matter 6. Structure and function 7. Stability and change
Performance Expectation(s)		Assessment

–Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. –Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from Earth. –Support an argument that the gravitational force exerted by Earth on objects is directed down.	End-of-Unit 1

Unit 2: Structure and Properties of Matter– November –January

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking Questions and Defining Problems 2. Developing and Using Models 3. Planning and Carrying Out Investigations 4. Analyzing and Interpreting Data 5. Using Mathematics and Computational Thinking 6. Constructing Explanations and Designing Solutions 7. Engaging in Argument from Evidence 8. Obtaining, Evaluating, and Communicating Information	–Matter of any type can be subdivided into particles that are too small to see, but even then, the matter still exists and can be detected by other means. A model showing that gases are made from matter particles that are too small to see and are moving freely around in space can explain many observations, including the inflation and shape of a balloon and the effects of air on larger particles or objects. (5-PS1-1) –(NYSED) The total amount of matter is conserved when it changes form, even in transitions in which it seems to vanish. (5-PS1-2) –Measurements of a variety of properties can be used to identify materials. (Boundary: At this grade level, mass and weight are not distinguished, and no attempt is made to define the unseen	1. Patterns 2. Cause and effect 3. Scale, proportion, and quantity 4. Systems and system models 5. Energy and matter 6. Structure and function 7. Stability and change

	particles or explain the atomic–scale mechanism of evaporation and condensation.) (5–PS1–3) –When two or more different substances are mixed, a new substance with different properties may be formed. (5–PS1– 4) –No matter what reaction or change in properties occurs, the total weight of the substances does not change. (Boundary: Mass and weight are not distinguished at this grade level.) (5–PS1–2)	
Performance Expectation(s)		Assessment
–Develop a model to describe that matter is made of particles too small to be seen. –Make observations and measurements to identify materials based on their properties. –Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances the total amount of matter is conserved. –Develop a model to describe that matter is made of particles too small to be –Conduct an investigation to determine whether the mixing of two or more substances results in new substances.		End–of–Unit 2

Unit 3: Earth's Systems January–March

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
1. Asking Questions and Defining Problems 2. Developing and Using Models 3. Planning and Carrying Out	–Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's	1. Patterns 2. Cause and effect 3. Scale, proportion, and quantity

	surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. (5–ESS2–1) –Nearly all of Earth's available water is in the ocean. Most freshwater is in glaciers or underground; only a tiny fraction is in streams, lakes, wetlands, and the atmosphere. (5ESS2– 2) –Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments. (5–ESS3–1)	4. Systems and system models 5. Energy and matter: Flows, cycles, and conservation 6. Structure and function 7. Stability and change
Investigations 4. Analyzing and Interpreting Data 5. Using Mathematics and Computational Thinking 6. Constructing Explanations and Designing Solutions 7. Engaging in Argument from Evidence 8. Obtaining, Evaluating, and Communicating Information		

Performance Expectation(s)		Assessment
–Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. –Describe and graph the amounts of saltwater and freshwater in various reservoirs to provide evidence about the distribution of water on Earth. –Obtain and combine information about ways individual communities use science ideas to protect Earth's resources and environment.		End–of–Unit 3

Unit 4: Matter and Energy in organisms and Ecosystems March –May

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts

1. Asking Questions and Defining Problems 2. Developing and Using Models 3. Planning and Carrying Out Investigations 4. Analyzing and Interpreting Data 5. Using Mathematics and Computational Thinking 6. Constructing Explanations and Designing Solutions 7. Engaging in Argument from Evidence 8. Obtaining, Evaluating, and Communicating Information	–The energy released [from] food was once energy from the sun that was captured by plants in the chemical process that forms plant matter (from air and water). (5–PS3–1) –Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion. (Secondary to 5–PS3–1) – Plants acquire their material for growth chiefly from air and water. (5–LS1–1) –The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plant parts and animals) and therefore operate as "decomposers". Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5–LS2–1) –Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gasses and water from the environment and release waste matter (gas, liquid, or solid) back into the environment. (5–LS2–1)	1. Patterns 2. Cause and effect 3. Scale, proportion, and quantity 4. Systems and system models 5. Energy and matter: Flows, cycles, and conservation 6. Structure and function 7. Stability and change

Performance Expectation(s)	Assessment
–Develop a model to describe the movement of matter among plants (producers), animals (consumers), decomposers, and the environment. –Support an argument that plants get the materials they need for growth chiefly from air and water. –Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the Sun.	End-of-Unit 4

Social Studies – Communities From Around the World		
Unit 1: Early Civilizations September– November		
Enduring Understanding(s) Varying theories about how the earliest inhabitants of America arrived exist. Early inhabitants of the Americas adapted to environmental challenges in a variety of ways. The Aztecs, Incas and Mayas developed sophisticated cultures by using innovative technological solutions.	**Essential Question (s)** What makes people similar yet unique?	
Key Ideas	Standards *SS Framework &* *Next Gen. ELA*	Assessment
5.1a Various forms of scientific evidence suggest that humans came to North America approximately 25,000 to 14,000 years ago and spread southward to South America. 5.1b Human populations that settled along rivers, in rainforests, along oceans, in deserts, on plains, in mountains, and in cold climates adapted to and made use of the resources and environment around them in developing distinct ways of life. 5.2a Civilizations share certain common characteristics of religion, job specialization, cities, government, language and writing systems, technology, and social hierarchy. 5.2b Complex societies and civilizations adapted to and modified their environment to meet the needs of their people. 5.2c Political states can take different forms such as city–states and empires. A city–state is a city with a government that controls the surrounding territory, while an	<u>ELA Reading Standards:</u> Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences. (RI&RL) 2. Determine a theme or central idea and explain how it is supported by key details; summarize a text. (RI&RL) 3. In literary texts, compare and contrast two or more characters, settings, and events, drawing on specific details in the text. (RL) In informational texts, explain the relationships or interactions between two or more individuals, events, ideas, or concepts based on specific evidence from the text. (RI) 4. Determine the meaning of words, phrases, figurative language, academic, and content–specific words and analyze their effect on meaning, tone, or mood. (RI&RL) 5. In literary texts, explain how a series of chapters, scenes, or stanzas fits together to determine the overall structure of a story, drama, or poem. (RL) In informational texts, compare and contrast the overall structure in two or more texts using terms such as	Unit 1 Assessment

| empire is a political organization developed when a single supreme authority takes control over other geographic and/or cultural regions beyond its initial settlements. | sequence, comparison, cause/effect, and problem/solution. (RL)
6. In literary texts, explain how a narrator's or speaker's point of view influences how events are described. (RL) In informational texts, analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. (RI)
7. Analyze how visual and multimedia elements contribute to the meaning of literary and informational texts. (RI&RL)
9. Use established criteria to categorize texts and make informed judgments about quality; make connections to other texts, ideas, cultural perspectives, eras and personal experiences. (RI&RL)
ELA Writing Standards:
Write informative/explanatory texts to explore a topic and convey ideas and information relevant to the subject.
4. Create a poem, story, play, artwork, or other response to a text, author, theme, or personal experience.
ELA Listening/Speaking Standards:
Engage effectively in a range of collaborative discussions with diverse partners; express ideas clearly and persuasively, and build on those of others.
4. Report on a topic or text, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support central ideas or themes; speak clearly at an understandable pace and volume appropriate for the audience. | |

Unit 2: What Makes a Complex Society Complex? November–December	
Enduring Understanding(s) This inquiry provides students with an opportunity to evaluate a series of innovations by three complex civilizations— Maya, Aztec, and Inca. In examining the compelling question "What makes a complex society complex?" students explore how complex societies and civilizations adapt to and modify their environment to meet the needs of their people. Students use the social studies practices of Comparison and Contextualization as they work with sources related to the ancient writing developed by the Maya, specialized agricultural methods developed by the Aztecs, and transportation/communication networks developed by the Inca. The goal of this inquiry is to provide enough background about these innovations and technological advancements to support students as they develop arguments about what makes societies complex.	**Essential Question (s)** ● How did the Maya use writing to represent activities in their culture? ● What did the Aztecs do to master their watery environment? ● Why were roads important to the Inca Empire?

Key Ideas	Standards *SS Framework &* *Next Gen. ELA*	Assessment
(5.2a) Civilizations share certain common characteristics of religion, job specialization, cities, government, language and writing systems, technology, and social hierarchy. (5.2b) Complex societies and civilizations adapted to and modified their environment to meet the needs of their people.	<u>Social Studies Standards:</u> 5.2 COMPLEX SOCIETIES AND CIVILIZATIONS: Between 1100 B.C.E. and 1500 C.E., complex societies and civilizations developed in the Western Hemisphere. Although these complex societies and civilizations have certain defining characteristics in common, each is also known for unique cultural achievements and contributions.	Inquiry Summative Assessment

Unit 3: European Explorers and the Transatlantic Slave Trade: January	
Enduring Understanding(s) Europeans came to the Western Hemisphere for a variety of reasons and the impact of European exploration and settlement can be viewed through multiple perspectives.	**Essential Question (s)** How have global interactions between different groups of people led to significant long–term impacts?

The interactions between Native Americans and Europeans can be viewed as a major turning point for the Western Hemisphere.		
Key Ideas	Standards *SS Framework &* *Next Gen. ELA*	Assessment
5.3. EUROPEAN EXPLORATION AND ITS EFFECTS: Various European powers explored and eventually colonized the Western Hemisphere. This had a profound effect on Native Americans and led to the transatlantic slave trade. a. Europeans traveled to the Americas in search of new trade routes, including a northwest passage, and resources. They hoped to gain wealth, power, and glory. b. Europeans encountered and interacted with Native Americans in a variety of ways. c. The transatlantic trade of goods, movement of people, and spread of ideas and diseases resulted in cultural diffusion. This cultural diffusion became known as the Columbian Exchange which reshaped the lives and influenced the beliefs of people. d. Africans were captured, brought to the Americas, and sold as slaves. Their transport across the Atlantic was known as the Middle Passage.	1. Locate and refer to relevant details and evidence when explaining what a text says explicitly/implicitly and make logical inferences. (RI&RL) 2. Determine a theme or central idea and explain how it is supported by key details; summarize a text. (RI&RL) 3. In literary texts, compare and contrast two or more characters, settings, and events, drawing on specific details in the text. (RL) In informational texts, explain the relationships or interactions between two or more individuals, events, ideas, or concepts based on specific evidence from the text. (RI) 4. Determine the meaning of words, phrases, figurative language, academic, and content-specific words and analyze their effect on meaning, tone, or mood. (RI&RL) 6. In literary texts, explain how a narrator's or speaker's point of view influences how events are described. (RL) In informational texts, analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. (RI) 7. Analyze how visual and multimedia elements contribute to meaning of literary and informational texts. (RI&RL) 9. Use established criteria to categorize texts and make informed judgments about quality; make connections to other texts, ideas, cultural perspectives, eras and personal experiences. (RI&RL)	Summative Assessment

Unit 4: Sugar and Slavery: February–March		
Enduring Understanding(s)	Essential Question (s)	
Key Ideas	Standards *SS Framework &* *Next Gen. ELA*	Assessment
1. What conditions supported sugar production and slavery in the Western Hemisphere? 2. How was sugar cultivated in the Western Hemisphere? 3. What was life like for enslaved Africans on sugar plantations in the Western Hemisphere?	5.3 EUROPEAN EXPLORATION AND ITS EFFECTS: Various European powers explored and eventually colonized the Western Hemisphere. This had a profound impact on Native Americans and led to the transatlantic slave trade.	Unit 4 Assessment

Unit 5: Social Media: Why Can't I Post That?: April–May		
Enduring Understanding(s)	Essential Question (s)	
Key Ideas	Standards *SS Framework &* *Next Gen. ELA*	Assessment
1. What is the difference between rights and responsibilities? 2. Do we have the right to say anything we want on social media? (Bill Rights) 3. What are the benefits associated with posting on social media?		Summative Assessment

4. What are the risks associated with posting on social media?			

Math			
Unit	Content/ Skills	Standards	Assessment
Module 1 September– October	**4.Mod1.AD6** Explain the relationship between a digit in a multi–digit whole number and the same digit in the place to the right. **4.Mod1.AD7** Read and write multi–digit whole numbers in unit, standard, word, and expanded form. **4.Mod1.AD10** Add and subtract multi–digit whole numbers by using the standard algorithm. **4.Mod2.AD1** Solve word problems involving multiplicative comparison by using two–digit by one–digit multiplication or dividing tens and ones by one–digit numbers. **4.Mod3.AD2** Multiply whole numbers of up to four digits by one–digit whole numbers, and multiply 2 two–digit whole numbers. **4.Mod 3.AD3** Divide whole numbers of up to four digits by one–digit whole numbers. **5.Mod1.AD1** Write whole–number numerical expressions with parentheses. **5.Mod1.AD2** Evaluate whole–number numerical expressions with parentheses. **5.Mod1.AD3** Translate between whole–number numerical expressions and mathematical or contextual verbal descriptions.	**MA.NY–5.NBT**Number and Operations in Base Ten ● **MA.NY–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 1/10 of what it represents in the place to its left. ● **MA.NY–5.NBT.2** Use whole–number exponents to denote powers of 10. 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. ● **MA.NY–5.NBT.5** Fluently multiply multi–digit whole numbers using a standard algorithm. ● **MA.NY–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, and/or the relationship between multiplication and division. Illustrate and explain the	Topic A Quiz Topic B Quiz Topic C Quiz Topic D Quiz Module 1 Assessment

5.Mod1.AD4 Compare the effect of each number and operation on the value of a whole–number numerical expression. **5.Mod1.AD5** Solve real–world and mathematical problems that involve addition, subtraction, multiplication, and division of multi–digit whole numbers. **5.Mod1.AD6** Explain the relationship between digits in multi–digit whole numbers. **5.Mod1.AD7** Explain the effect of multiplying and dividing whole numbers by powers of 10. **5.Mod1.AD8** Express whole–number powers of 10 in exponential form, standard form, and as repeated multiplication. **5.Mod1.AD9** Multiply two multi–digit whole numbers by using the standard algorithm. **5.Mod1.AD10** Solve problems that involve division of whole–number dividends with up to four digits and whole–number divisors with up to two digits. **5.Mod1.AD11** Represent division of whole–number dividends with up to four digits and whole–number divisors with up to two digits by using models. **5.Mod1.AD12** Convert among whole–number amounts within the metric measurement system to solve problems.	calculation by using equations, rectangular arrays, and/or area models. **MA.NY–5.OA.1** Apply the order of operations to evaluate numerical expressions. Note: Exponents and nested grouping symbols are not included. **MA.NY–4.OA.2** Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. Use drawings and equations with a symbol for the unknown number to represent the problem. **MA.NY–5.OA.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. e.g., Express the calculation "add 8 and 7, then multiply by 2" as $(8 + 7) \times 2$. Recognize that $3 \times (18,932 + 921)$ is three times as large as $18,932 + 921$, without having to calculate the indicated sum or product. **MA.NY–4.NBT.1** Recognize that in a multi–digit whole number, a digit in one place represents ten times what it represents in the place to its right. e.g., Recognize that $70 \times 10 = 700$ (and, therefore, $700 \div 10 = 70$) by applying concepts of place value, multiplication, and division. **MA.NY–4.NBT.2a** Read and write multi–digit whole numbers using base-ten numerals, number names, and expanded form. e.g., $50,327 = 50,000 + 300 + 20 + 7$ **MA.NY–4.NBT.2b** Compare two multi–digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. **MA.NY–4.NBT.4** Fluently add and subtract multi–digit whole numbers using a standard algorithm. **MA.NY–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. **MA.NY–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. **MA.NY–5.MD.1** Convert among different-sized standard measurement units within a given measurement system when the conversion factor is given. Use these conversions in solving multi–step, real world problems.	

Module 2
October–
November
	3.Mod1.AD1 Represent a multiplication situation with a model and convert between several representations of multiplication.
	3.Mod1.AD2 Represent a division situation with a model and convert between several representations of division.
	3.Mod1.AD7 Represent and explain division as an unknown factor problem.
	3.Mod 5.AD4 Represent a fraction a/b on a number line by partitioning the number line into intervals of length 1/b, starting from 0.
	4.Mod 4.AD2 Generate equivalent fractions and their representations.
	4.Mod 4.AD4 Decompose fractions into a sum of fractions with the same denominator in more than one way.
	4.Mod 4.AD5 Add mixed numbers with like denominators.
	4.Mod4.AD6 Subtract mixed numbers with like denominators.
	4.Mod4.AD9 Multiply a fraction by a whole number.
	4.Mod 4.AD11 Create a line plot to display a
		MA.NY–5.NF Number and Operations—Fractions
		    ● **MA.NY–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.
		    e.g., 1/3 + 2/9 = 3/9 + 2/9 = 5/9; 2/3 + 5/4 = 8/12 + 15/12 = 23/12
		    ● **MA.NY–5.NF.2** Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.
		    e.g., Recognize an incorrect result 2/5 + 1/2 = 3/7 by observing that 3/7 < 1/2.
			Topic A Quiz
			
			Topic B Quiz
			
			Topic C Quiz
			
			Topic D Quiz
			
			Module 2 Assessment

| | data set of measurements in fractions of a unit (1/2, 1/4, 1/8) and solve problems involving addition and subtraction of fractions by using the line plot.
5.Mod 2.AD1 Solve multi–step problems, including word problems, involving addition and subtraction of fractions and mixed numbers and division of whole numbers with fractional quotients.
5.Mod 2.AD2 Reason about the process of adding and subtracting fractions and mixed numbers with unlike units.
5.Mod 2.AD3 Model making equivalent fractions to add and subtract fractions and mixed numbers with unlike units.
5.Mod 2.AD4 Add and subtract fractions and mixed numbers with unlike units.
5.Mod 2.AD5 Solve word problems involving addition and subtraction of fractions and mixed numbers with unlike units.
5.Mod 2.AD6 Model word problems involving addition or subtraction of fractions or mixed numbers that refer to the same whole.
5.Mod 2.AD7 Estimate sums or differences of fractions or mixed numbers mentally and assess the reasonableness of answers to word problems.
5.Mod 2.AD8 Interpret fractions as division of the numerator by the denominator.
5.Mod 2.AD9 Model problems involving division of whole numbers with fractional quotients.
5.Mod 2.AD10 Solve word problems involving division of whole numbers with fractional quotients.
5.Mod 2.AD11 Make line plots to represent data sets in fractions of units (1/2, 1/4, 1/8) and use line plots to analyze data and solve problems. | ● **MA.NY–5.NF.3** Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
e.g., Interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4.
MA.NY–3.OA.1 Interpret products of whole numbers.
e.g., Interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. Describe a context in which a total number of objects can be expressed as 5 × 7.
MA.NY–3.OA.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. Describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.
MA.NY–3.OA.6 Understand division as an unknown–factor problem.
e.g., Find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.
MA.NY–4.NF.1 Explain why a fraction a/b is equivalent to a fraction $(a \times n)/(b \times n)$ 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.
e.g., 1/4 = (1 × 2)/(4 × 2) = (1 × 3)/(4 × 3) [Graphic | |

			cannot be reproduced.]	
			MA.NY–5.MD.2 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots.	
			e.g., Given different measurements of liquid in identical beakers, make a line plot to display the data and find the total amount of liquid in all of the beakers.	
			MA.NY–4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots.	
			e.g., Given measurement data on a line plot, find and interpret the difference in length between the longest and shortest specimens in an insect collection.	
			MA.NY–4.NF.3.a Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.	
			MA.NY–4.NF.3.b Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions.	
			e.g., Justify decompositions by using a visual fraction model such as, but not limited to: 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8	
			MA.NY–3.NF.2.b Represent a fraction a/b on a number line by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.	
			MA.NY–4.NF.3.c Add and subtract mixed numbers with like denominators.	
			e.g., replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition	

		and subtraction **MA.NY–4.NF.4.b** Understand a multiple of *a/b* as a multiple of 1/*b*, and use this understanding to multiply a whole number by a fraction. e.g., use a visual fraction model to express 3 × 2/5 as 6 × 1/5, recognizing this product as 6/5, e.g., [graphic cannot be reproduced]. In general, *n* × (*a/b*) = (*n* × *a*)/*b*.	
Module 3 December– January	**5.Mod 3.AD1** Write numerical expressions that include fractions and parentheses. **5.Mod3.AD2** Evaluate numerical expressions that include fractions and parentheses. **5.Mod 3.AD3** Translate between numerical expressions that include fractions and mathematical or contextual verbal descriptions. **5.Mod3.AD4** Compare the effect of each number and operation on the value of a numerical expression that includes fractions. **5.Mod 3.AD5** Solve multi–step problems, including word problems, involving addition, subtraction, and multiplication of fractions, division of whole numbers with fractional quotients, and division with unit fractions and whole numbers. **5.Mod3.AD6** Multiply whole numbers or fractions by fractions. **5.Mod 3.AD7** Recognize, model, and contextualize the product of a fraction and a whole number or fraction. **5.Mod 3.AD8** Compare the effects of multiplying by fractions and whole numbers. **5.Mod3.AD9** Explain the effect of multiplying by a fraction less than 1, equal to 1, or greater than 1. **5.Mod 3.AD10** Solve real–world problems involving multiplication of fractions. **5.Mod 3.AD11** Model and evaluate division of unit fractions by nonzero whole numbers. **5.Mod 3.AD12** Model and evaluate division of	**MA.NY–5.NF**Number and Operations—Fractions ● **MA.NY–5.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number or a fraction. 　○ **MA.NY–5.NF.4.a** Interpret the product (*a/b*) × *q* as *a* parts of a partition of *q* into *b* equal parts; equivalently, as the result of a sequence of operations *a* × *q* ÷ *b*. 　e.g., Use a visual fraction model to show 2/3 × 4 = 8/3, and create a story context for this equation. Do the same with 2/3 × 4/5 = 8/15. ● **MA.NY–5.NF.6** Solve real world problems involving multiplication of fractions and mixed numbers. 　e.g., using visual fraction models or equations to represent the problem **MA.NY–5.OA.1** Apply the order of operations to evaluate numerical expressions. Note: Exponents and nested grouping symbols are not included. **MA.NY–5.OA.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. e.g., Express the calculation "add 8 and 7, then multiply by 2" as (8 + 7) × 2. Recognize that 3 × (18,932 + 921) is three times as large as 18,932 +	Topic A Quiz Topic B Quiz Topic C Quiz Topic D Quiz Module 3 Assessment

| | whole numbers by unit fractions.
5.Mod 3.AD13 Solve word problems involving division of unit fractions by nonzero whole numbers and division of whole numbers by unit fractions.
5.Mod3.AD14 Convert among units within the customary measurement system to solve problems. | 921, without having to calculate the indicated sum or product.
MA.NY–5.MD.1 Convert among different–sized standard measurement units within a given measurement system when the conversion factor is given. Use these conversions in solving multi–step, real world problems.
MA.NY–5.NF.5.a Compare 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.
e.g., In the case of 10 × 1/2 = 5, 5 is half of 10 and 5 is 10 times larger than 1/2.
MA.NY–5.NF.5.b Explain 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). Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number. Relate the principle of fraction equivalence $a/b = (a/b) × (n/n)$ to the effect of multiplying a/b by 1.
e.g., Explain why 4 × 3/2 is greater than 4. Explain why 4 × 1/2 is less than 4. 1/3 is equivalent to 2/6 because 1/3 × 2/2 = 2/6.
MA.NY–5.NF.7.a Interpret division of a unit fraction by a non–zero whole number, and compute such quotients.
e.g., Create a story context for 1/3 ÷ 4 and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 1/3 ÷ 4 = 1/12 because 1/12 × 4 = 1/3.
MA.NY–5.NF.7.b Interpret division of a whole number by a unit fraction, and compute such quotients.
e.g., Create a story context for 4 ÷ 1/5 and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ 1/5 = 20 because 20 × 1/5 = 4.
MA.NY–5.NF.7.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., How much chocolate will each person get if 3 people share 1/2 lb. of chocolate equally? How many 1/3–cup servings are in 2 cups of raisins?	

Module 4
February–
March
	3.Mod4.AD4 Find the area of a rectangle with whole–number side lengths by tiling it and show that the area is equal to the product of the side lengths.
	3.Mod 4.AD7 Calculate areas of composite shapes.
	4.Mod 2.AD11 Solve area and perimeter problems.
	4.Mod 5.AD3 Represent tenths and hundredths in decimal form, fraction form, or by using a model.
	4.Mod5.AD4 Compare two decimal numbers to hundredths and justify the conclusions.
	4.Mod 6.AD6 Identify attributes and use them to classify two-dimensional figures, including triangles.
	5.Mod 4.AD1 Write numerical expressions that include decimals and parentheses.
	5.Mod4.AD2 Evaluate numerical expressions that include decimals and parentheses.
	5.Mod 4.AD3 Translate between numerical expressions that include decimals and mathematical or contextual verbal descriptions.
	5.Mod4.AD4 Compare the effect of each number and operation on the value of a numerical expression that includes decimals.
	5.Mod 4.AD5 Model decimals to the thousandths place.
	5.Mod4.AD6 Explain the relationship between digits in multi–digit numbers.
	5.Mod4.AD7 Explain the effect of multiplying and dividing numbers by powers of 10.
	5.Mod 4.AD8 Order a set of decimals to the
		MA.NY–5.OA.1 Apply the order of operations to evaluate numerical expressions.
		Note: Exponents and nested grouping symbols are not included.
		MA.NY–5.OA.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.
		e.g., Express the calculation "add 8 and 7, then multiply by 2" as (8 + 7) × 2. Recognize that 3 × (18,932 + 921) is three times as large as 18,932 + 921, without having to calculate the indicated sum or product.
		MA.NY–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 1/10 of what it represents in the place to its left.
		MA.NY–5.NBT.2 Use whole–number exponents to denote powers of 10. 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.
		MA.NY–5.NBT.3 Read, write, and compare decimals to thousandths.
		e.g., 47.392 = 4 × 10 + 7 × 1 + 3 × 1/10 + 9 × 1/100 + 2 × 1/1000; 47.392 = (4 × 10) + (7 × 1) + (3 × 1/10) + (9 × 1/100) + (2 × 1/1000); 47.392 = (4 × 10) + (7 × 1) + (3 × 0.1) + (9 × 0.01) + (2 × 0.001)
		    ● **MA.NY–5.NBT.3.a** Read and write decimals to thousandths using base-ten numerals, number names, and expanded form.
		    ● **MA.NY–5.NBT.3.b** Compare two
			Topic A Quiz
			
			Topic B Quiz
			
			Topic C Quiz
			
			Topic D and Topic E Quiz (together)
			
			Module 4 Assessment

thousandths place.

5.Mod4.AD9 Read and write decimals to the thousandths place in standard form, expanded form, word form, and unit form.

5.Mod4.AD10 Compare two decimals to the thousandths place by using >, =, and <.

5.Mod 4.AD11 Round decimals by using place value understanding.

5.Mod 4.AD12 Estimate sums, differences, products, and quotients of decimals to the hundredths place.

5.Mod 4.AD13 Solve real-world and mathematical problems that involve addition, subtraction, multiplication, and division of decimals to the hundredths place.

5.Mod4.AD14 Add decimals to the hundredths place.

5.Mod4.AD15 Subtract decimals to the hundredths place.

5.Mod4.AD16 Multiply decimals to the hundredths place.

5.Mod 4.AD17 Divide decimals to the hundredths place.

5.Mod 4.AD18 Model addition, subtraction, multiplication, and division of decimals to the hundredths place.

5.Mod 4.AD19 Analyze and explain strategies for addition, subtraction, multiplication, and division of decimals to the hundredths place.

5.Mod4.AD20 Convert among amounts within a given measurement system to solve problems.

decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

MA.NY-5.NBT.4 Use place value understanding to round decimals to any place.

MA.NY-5.NBT.7 Using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between operations: add and subtract decimals to hundredths; multiply and divide decimals to hundredths. Relate the strategy to a written method and explain the reasoning used.
Note: Division problems are limited to those that allow for the use of concrete models or drawings, strategies based on properties of operations, and/or the relationship between operations (e.g., $0.25 \div 0.05$). Problems should not be so complex as to require the use of an algorithm (e.g., $0.37 \div 0.05$).

MA.NY-5.MD.1 Convert among different-sized standard measurement units within a given measurement system when the conversion factor is given. Use these conversions in solving multi-step, real world problems.
Notes: Grade 5 expectations for decimal operations are limited to work with decimals to hundredths.

MA.NY-4.NF.6 Use decimal notation for fractions with denominators 10 or 100.
e.g., Rewrite 0.62 as 62/100 or 62/100 as 0.62. Describe a length as 0.62 meters. Locate 0.62 on a number line.

MA.NY-4.NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions.
e.g., using a visual model [graphics cannot be

		reproduced]. 0.2 > 0.09 because, when these decimals refer to the same whole, 2 out of 10 equal parts is more of that whole than 9 out of 100 equal parts. If the wholes were not the same size, this comparison would not be valid. **MA.NY–4.MD.3** Apply the area and perimeter formulas for rectangles in real world and mathematical problems. e.g., Find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor. **MA.NY–4.G.2a** Identify and name triangles based on angle size (right, obtuse, acute). **MA.NY–4.G.2b** Identify and name all quadrilaterals with 2 pairs of parallel sides as parallelograms. **MA.NY–4.G.2c** Identify and name all quadrilaterals with four right angles as rectangles. **MA.NY–3.MD.7.a** Find the area of a rectangle with whole–number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths. **MA.NY–3.MD.7.d** Recognize area as additive. Find areas of figures composed of non–overlapping rectangles, and apply this technique to solve real world problems. e.g., [graphic cannot be reproduced]	
Module 5 April/May	**5.Mod5.AD1** Multiply mixed numbers by whole numbers, fractions, and mixed numbers. **5.Mod 5.AD2** Find and model area by using tiles with unit–fraction side lengths. **5.Mod 5.AD3** Find areas of rectangles and figures composed of rectangles with fraction or mixed–number side lengths. **5.Mod 5.AD4** Model products of fractions and mixed numbers by using rectangular areas. **5.Mod 5.AD5** Solve real–world problems involving multiplication of mixed numbers. **5.Mod 5.AD6** Recognize that volume can be	**MA.NY–5.NF.4** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number or a fraction. ● **MA.NY–5.NF.4.b** Find the area of a rectangle with fractional side lengths by tiling it with rectangles 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	Topic A Quiz Topic B Quiz Topic C Quiz Topic D Quiz Module 5 Assessment	

measured by using unit cubes and that a solid packed without gaps or overlaps by n unit cubes has a volume of n cubic units.

5.Mod 5.AD7 Measure volumes by counting unit cubes that represent cubic centimeters, cubic inches, cubic feet, and improvised units.

5.Mod5.AD8 Determine unknown attributes of right rectangular prisms given the volume.

5.Mod5.AD9 Explain the relationship between multiplication and volume by packing right rectangular prisms with unit cubes.

5.Mod 5.AD10 Model and explain threefold whole number products as volumes.

5.Mod 5.AD11 Calculate volumes of right rectangular prisms by using V = l × w × h and V = B × h.

5.Mod 5.AD12 Find volumes of figures composed of right rectangular prisms to solve real–world and mathematical problems.

5.Mod 5.AD13 Explain that properties belonging to a category of two–dimensional figures also belong to all subcategories of that category.

5.Mod 5.AD14 Classify two–dimensional figures in a hierarchy based on properties.

products as rectangular areas.
e.g., The shaded portion shows the rectangle with the appropriate fraction side lengths. [Graphic cannot be reproduced.] The area of a 2/3 × 3/4 rectangle is 6/12 because the whole is partitioned into 12 parts with 6 of them shaded. [Graphic cannot be reproduced.]

MA.NY–5.NF.6 Solve real world problems involving multiplication of fractions and mixed numbers.
e.g., using visual fraction models or equations to represent the problem

MA.NY–5.MD.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

- **MA.NY–5.MD.3.a** Recognize that 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.
- **MA.NY–5.MD.3.b** Recognize that 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.

MA.NY–5.MD.4 Measure volumes by counting unit cubes, using cubic cm, cubic in., cubic ft., and improvised units.

MA.NY–5.MD.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

- **MA.NY–5.MD.5.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.

		● **MA.NY–5.MD.5.b**Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole–number edge lengths in the context of solving real world and mathematical problems. ● **MA.NY–5.MD.5.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. e.g., [Graphic cannot be reproduced.] **MA.NY–5.G.3** Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. e.g., All rectangles have four right angles and squares are rectangles, so all squares have four right angles. **MA.NY–5.G.4** Classify two-dimensional figures in a hierarchy based on properties.	
Module 6 May–June	**3.Mod 2.AD7** Solve one– and two–step how many more and how many less word problems using information presented in a scaled bar graph. **3.Mod 5.AD4** Represent a fraction a/b on a number line by partitioning the number line into intervals of length 1/b, starting from 0. **4.Mod2.AD5** Create a pattern that follows a given rule and identify additional features of that pattern. **5.Mod 5.AD3** Find areas of rectangles and figures composed of rectangles with fraction or mixed–number side lengths. **5.Mod 6.AD1** Describe numerical patterns. **5.Mod6.AD2** Generate and represent numerical	**MA.NY–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. e.g., Given the rule "Add 3" and the starting number 0, and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so. **MA.NY–4.OA.5** Generate a number or shape pattern that follows a given rule. Identify and informally explain apparent features of the pattern	Topic A Quiz Topic B Quiz Topic C Quiz Topic D Quiz Module 6 Assessment

patterns by using tables and the coordinate plane. **5.Mod 6.AD3** Plot and interpret points in a two-dimensional coordinate system. **5.Mod 5.AD14** Classify two-dimensional figures in a hierarchy based on properties. **5.Mod6.AD4** Solve real-world problems by using the first quadrant of the coordinate plane. **5.Mod 6.AD5** Solve mathematical problems by using the first quadrant of the coordinate plane.	that were not explicit in the rule itself. e.g., Given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way. **MA.NY-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 a scaled picture graph or a scaled bar graph. e.g., Draw a bar graph in which each square in the bar graph might represent 5 pets. **MA.NY-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 **MA.NY-5.G.2** Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. **MA.NY-5.G.4** Classify two-dimensional figures in a hierarchy based on properties. **MA.NY-5.NF.4.b** Find the area of a rectangle with fractional side lengths by tiling it with rectangles 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.
e.g., The shaded portion shows the rectangle with the appropriate fraction side lengths. [Graphic cannot be reproduced.] The area of a 2/3 × 3/4 rectangle is 6/12 because the whole is partitioned into 12 parts with 6 of them shaded. [Graphic cannot be reproduced.]
MA.NY–3.NF.2.b Represent a fraction a/b on a number line by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. | |