

CPM Seventh Grade Pacing Calendar and Standards Alignment



■ - Non-Math Teaching days/ Holidays

First Semester Instructional Days	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Sept.	■	■	■	■	■	Chapter 1					Chapter 1					Chapter 1					Ch 1			
Oct.	Ch 1		Ch 2			Chapter 2					Chapter 2					Chapter 2					Ch 2		■	
Nov.	Chapter 3					Chapter 3					Chapter 3					Chapter 3		■	■				Ch 4	
Dec.	Chapter 4					Chapter 4					Chapter 4					Chapter 4		■	■	■	■	■	■	■
Jan.	■	■	Ch 5				Chapter 5					Chapter 5					Exam		Ch 5			Chapter 5		

Chapter 1 (19 days)	Chapter 2 (19 days)	Chapter 3 (18 days)	Chapter 4 (19 days)	Chapter 5 (23 days)
<p>Introduction & Probability: Welcome to math class! This chapter will introduce you to several of the big ideas that you will explore during this course. You will apply your current mathematical knowledge to solve problems, some of which you will revisit later in the course using new tools.</p> <p>Later in the chapter, you will focus on finding probability. Probability is the chance that something will happen. It is something you may have thought about in various aspects of daily life, but in this chapter, you will learn how to calculate it mathematically. As you work with fish tanks, experiment with spinners, and toss coins, you will determine how to find the theoretical and the experimental probability that an event will occur. You will also review or reinforce your understanding of working with fractions and other portions.</p>	<p>Fractions & Integer Addition: In Chapter 2 you will work to deepen your understanding about various types of numbers. In Section 2.1, you will look carefully at relationships between fractions, decimals, and percents to rewrite numbers in different forms and to compare them to each other.</p> <p>In Section 2.2, you will direct an acrobat to move back and forth on a tightrope as you learn about adding and multiplying integers (positive and negative whole numbers, and zero). You will also learn how to add and multiply numbers containing fractions and decimals (called rational numbers). Then you will represent and combine positive and negative values using pictures. Finally, you will learn ways to make calculations without having to write anything down or use a calculator. In Section 2.3, you will look at coordinate graphs and learn how to scale axes to make the graphs the most useful for different purposes.</p>	<p>Arithmetic Properties: The acrobat from Chapter 2 has somersaulted into Chapter 3, where you will continue to use the acrobat’s routines as you work with integers. Specifically, you will learn about grouping mathematical operations so that you can simplify expressions accurately. In the first section of this chapter, you will also begin to think about how to figure out unknown amounts, a skill that is essential for algebraic thinking.</p> <p>In the second section of this chapter, you will revisit integers as you investigate subtraction of positive and negative numbers and think more deeply about multiplication.</p> <p>Section 3.3 extends your previous understanding of operating with portions to include division with fractions, mixed numbers, and decimals.</p>	<p>Proportions & Expressions: In Section 4.1, you will investigate how to enlarge and reduce figures so that they maintain their same shape. Your work with similar figures and scale drawings, such as maps and blueprints, will lay the foundation for much of the rest of the chapter.</p> <p>Maps, blueprints, and scale models all have one thing in common: they are proportional to what they represent. This is a concept that you will explore in Section 4.2. You will also study proportional relationships using tables, graphs, and the Giant One.</p> <p>Section 4.3, you will begin to build expressions using a new tool called “algebra tiles.” You will use a variable to help you describe the perimeter and area of shapes built with tiles when one dimension is unknown or represents various possible lengths. You will write expressions and simplify them.</p>	<p>Probability & Solving Word Problems: How often do you need to compare one thing to another? You probably compare prices when you are buying something, and you may compare heights of basketball players as you watch a game. In mathematics, comparing one thing to another is an important strategy to learn about how they are related.</p> <p>In Section 5.2, you will continue your study of probability. You will learn how to calculate probabilities of two or more events and how to decide when different games are fair. You will also calculate the probability that more than one event will take place. As you do this, you will learn new ways to organize the possible outcomes and will explore situations where one outcome is more likely than another.</p> <p>In Section 5.3, you will use variables to represent a single unknown number in different contexts, such as the length of the side of a figure or the number of frogs in a pond. You will learn about the 5-D Process, a strategy to organize your thinking that can help you solve problems.</p>

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Second Semester Instructional Days	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Jan.	■	■	Ch 5			Chapter 5					Chapter 5					Exam			Ch 5		Chapter 5		
Feb.	Chapter 5					Chapter 6					Chapter 6					Chapter 6							
March	Chapter 6					Chapter 7					Chapter 7					Chapter 7							
April	Chapter 7					Chapter 8					Chapter 8					Chapter 8							
May	Chapter 9					Chapter 9					Chapter 9					Chapter 9							
June	Review/Exam					■					■					■							

Chapter 6 (21 days)	Chapter 7 (18 days)	Chapter 8 (16 days)	Chapter 9 (20 days)
<p>Solving Inequalities & Equations: In this chapter, you will use algebra tiles to compare two expressions on Expression Comparison Mats. In Section 6.1, you will also discover the legal moves that allow you to simplify expressions. Then you will determine which expression is greater or if they are equal. You will also learn how to record solutions to inequalities using number lines with boundary points.</p> <p>You will extend what you know about comparing expressions to include cases in which expressions are equal. You will build equations on Equation Mats with algebra tiles, write equations with variables, and solve equations without using tiles. Learning how to write and solve equations will provide you a new way to solve word problems without completing a 5-D table. By the end of this chapter, you will learn efficient ways to justify the steps used to solve equations.</p>	<p>Proportions & Percents: When traveling in a car, have you ever asked, "When are we going to get there?" Did you know that you could use mathematics to answer that question? In Section 7.1, you will use diagrams, like the ones you used for percents, to find the relationship between rate, time, and distance.</p> <p>Then you will revisit scale factors and connect them to percents. You will learn how to simplify difficult problems by rewriting equations to remove fractional and decimal coefficients. Finally, you will investigate how to find the percent increase, percent decrease, and simple interest.</p> <p>You have studied many different proportional relationships, including scale drawings, unit pricing, penny towers, and gas mileage. You will explore more about proportional relationships in Section 7.2 as you learn additional strategies for solving them.</p>	<p>Statistics & Angle Relationships: You may not have noticed, but many homework problems in Chapter 7 helped prepare you for this chapter's work with data. The homework problems equipped you with tools for comparing two sets of data and making inferences about the data based on evidence.</p> <p>After revisiting data display and analysis in Section 8.1, in Section 8.2 you will look at how to design a good survey. You will learn more about the kinds of questions to ask and the group that you would select to answer them.</p> <p>In Section 8.3, your focus will shift from statistics toward geometry. You will begin by learning about angles. Specifically, you will learn how to classify them by their sizes and by their relationships to other angles. Then you will build triangles and quadrilaterals with specific characteristics and compare them to each other.</p>	<p>Circles & Volume: Congratulations! You have made it to the last chapter in your math book! Now you will return to geometry, learning how to find the circumference and area of a circle.</p> <p>In Section 9.1, you will also use this concept to find the areas of complicated figures. In Section 9.2, you will explore how to measure the surface areas and volumes of three-dimensional solids by designing and building cereal boxes. You will visualize what the cut surface of a solid will look like if you slice it at different angles. Finally, you will investigate the volumes of shapes that do not have rectangular bases.</p> <p>In the course closure and reflection (Section 9.3), you will work with your team to solve challenging problems that allow you to reflect about your learning throughout the course.</p>

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Chapter 1 Rec 12 Days	Chapter 2 Rec 11 Days	Chapter 3 Rec 11 Days	Chapter 4 Rec 12 Days	Chapter 5 Rec 16 Days	Chapter 6 Rec 13 Days	Chapter 7 Rec 10 Days	Chapter 8 Rec 10 Days	Chapter 9 Rec 13 Days	
<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	<u>Standards</u>	
7.SP.5	7.RP.2a	7.NS.1c	7.RP.1	7.RP.3	7.EE.3	7.RP.2c	7.SP.1	7.G.3	
7.SP.6	7.RP.2b	7.NS.1d	7.RP.2a	7.EE.3	7.EE.4a	7.RP.2d	7.SP.2	7.G.4	
7.SP.7a	7.NS.1a	7.NS.2a	7.RP.2b	7.SP.6	7.EE.4b	7.RP.3	7.SP.3	7.G.6	
7.SP.7b	7.NS.1b	7.NS.2b	7.RP.2c	7.SP.7a	MP1	7.NS.3	7.SP.4	MP1	
7.SP.8a	7.NS.1d	7.NS.2c	7.RP.2d	7.SP.7b	MP2	7.EE.2	7.G.2	MP2	
MP1	7.NS.2a	7.NS.3	7.EE.1	7.SP.8a	MP3	7.EE.3	7.G.5	MP6	
MP2	7.NS.2d	MP1	7.G.1	7.SP.8b	MP5	7.EE.4a	MP1		
MP3	MP1	MP2	MP1	7.SP.8c	MP6	MP1	MP2		
MP5	MP4	MP6	MP3	MP1		MP2	MP3		
MP6			MP6	MP2		MP3	MP6		
MP7				MP4		MP4			
MP8				MP5					
RP – Ratios and Proportional Relationships <ul style="list-style-type: none"> Analyze proportional relationships and use them to solve real-world and mathematical problems. 	NS – The Number System <ul style="list-style-type: none"> Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. 	EE - Expressions and Equations <ul style="list-style-type: none"> Use properties of operations to generate equivalent expressions. Solve real-life and mathematical problems using numerical and algebraic expressions and equations 	G – Geometry <ul style="list-style-type: none"> Draw, construct and describe geometrical figures and describe the relationships between them. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume. 			SP – Statistics and Probability <ul style="list-style-type: none"> Use random sampling to draw inferences about a population. Draw informal comparative inferences about two populations. Investigate chance processes and develop, use, and evaluate probability models. 		MP – Mathematical Practice Standards <ol style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning. 	