Correlation of McGraw-Hill Education *College And Career Readiness Practice Workbooks* to the College and Career Readiness Standards for Adult Education

CCR Standards	CCR Practice Workbooks
READING STANDARDS	
CCR Anchor 1: Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text. (RI/RL.4.1) • Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (RI/RL.5.1)	**Reading Literary Text** • Lesson 8: Make Inferences and Draw Conclusions **Reading Informational Text** • Lesson 1: Determine Main Idea and Cite Supporting Details **Civics and Government** • Lesson 3: Structure of Government: Draw Conclusions **Economics** • Lesson 7: Money, Banking, and Personal Finance: Identify Relevant Information **United States History** • Lesson 3: Civil War and Reconstruction: Support Analysis with Evidence • Lesson 10: U.S. Foreign Policy Post-Cold War: Make Inferences **Life Science** • Lesson 6: Social Interactions and Group Behavior: Make Logical Inferences **Physical Science** • Lesson 6: Energy Reason to a Conclusion **Earth and Space Science** • Lesson 6: Global Climate Change: Cite Evidence to Support Analysis

Level D
• Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. (RI/RL.7.1)
  • *Application:* cite specific textual evidence to support analysis of primary and secondary sources. (RH.6-8.1)
  • *Application:* cite specific textual evidence to support analysis of science and technical texts. (RST.6-8.1)	

Level E
• Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text. (RI/RL.9-10.1)
  • *Application:* cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. (RH.9-10.1)
  • *Application:* cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions. (RST.9-10.1)	

CCR Standards	CCR Practice Workbooks
CCR Anchor 2: Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Determine the main idea of a text and explain how it is supported by key details; summarize the text. (RI.4.2) • Determine a theme of a story, drama, or poem from details in the text; summarize the text. (RL.4.2) **Level D** • Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments. (RI/RL.6.2) • *Application:* determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions. (RST.6-8.2) **Level E** • Determine a theme or central idea of a text and analyze in detail its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text. (RI/RL.9-10.2) • Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. (RST.11-12.2)	**Reading Literary Text** • Lesson 1: Determine Central Ideas and Supporting Details • Lesson 2: Identify Themes **Reading Informational Text** • Lesson 1: Determine Main Idea and Cite Supporting Details • Lesson 2: Analyze Important Details and Summarize Ideas **Civics and Government** • Lesson 1: Foundational Principles of American Democracy: Determine and Summarize Main Idea • Lesson 3: Structure of Government: Draw Conclusions **Economics** • Lesson 6: Competition: Identify Main Idea and Details **United States History** • Lesson 1: The Beginning of Our Nation: Determine and Summarize Main Idea **Geography and the World** • Lesson 1: Ancient Civilizations: Identify the Main Idea and Supporting Details **Life Science** • Lesson 2: Structure and Function in the Human Body Understand Central Ideas and Summarize Concepts **Physical Science** • Lesson 1: Wave Properties: Understand Central Ideas and Supporting Details • Lesson 2: Chemical Reactions: Summarize Complex Concepts • Lesson 6: Energy: Reason to a Conclusion **Earth and Space Science** • Lesson 1: Effects of Earth's Internal Processes: Understand Central Ideas and Supporting Details • Lesson 2: Structures and Matter in the Universe: Summarize Complex Concepts

CCR Standards	CCR Practice Workbooks
CCR Anchor 3: Analyze how and why individuals, events, and ideas develop and interact over the course of a text. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. (RI.4.3) **Level D** • Analyze how a text makes connections among and distinctions between individuals, ideas, or events (e.g., through comparisons, analogies, or categories). (RI.8.3) • *Application:* identify key steps in a text's description of a process related to history/social studies (e.g., how a bill becomes law, how interest rates are raised or lowered). (RH.6-8.3) • Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. (RST.6-8.3) **Level E** • Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text. (RI.11-12.3) • Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them. (RH.9-10.3) • Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. (RST.9-10.3)	**Reading Literary Text** • Lesson 4: Analyze Character, Dialogue, and Setting • Lesson 5: Analyze Plot Events • Lesson 6: Analyze Relationships within Texts: Compare and Contrast • Lesson 7: Analyze Relationships within Texts: Cause and Effect **Reading Informational Text** • Lesson 3: Analyze Relationships within Texts: Compare and Contrast • Lesson 4: Analyze Relationships within Texts: Cause and Effect • Lesson 5: • Lesson 6: Analyze Sequence • Lesson 7: Understand and Use Multi-step Instructions • Lesson 10: **Civics and Government** • Lesson 4: Changes to the U.S. Constitution: Explain a Process • Lesson 7: The Living Constitution: Analyze Cause and Effect **Economics** • Lesson 1: Economic Systems: Compare and Contrast **United States History** • Lesson 2: A Growing Republic: Analyze the Sequence of Events • Lesson 4: Industrialization: Interpret Information • Lesson 8: The Cold War: Analyze Cause and Effect **Geography and the World** • Lesson 6: Global Consequences of War: Analyze Cause and Effect **Life Science** • Lesson 3: Inheritance and Variability of Traits: Examine Cause and Effect • Lesson 8: Disruption of Ecosystems: Apply Scientific Practices to a Unique Situation **Physical Science** • Lesson 8: Collisions: Apply the Scientific Method to a Unique Situation **Earth and Space Science** • Lesson 3: The Role of Water in Earth Processes: Recognize a Sequence • Lesson 8: Plate Tectonics: Apply the Scientific Method to a Unique Situation

CCR Standards	CCR Practice Workbooks
CCR Anchor 4: Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a topic or subject area. (RI.5.4) • Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes. (RL.5.4) **Level D** • Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone. (RI/RL.6.4) **Level E** • Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper). (RI/RL.9-10.4) • *Application:* determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context. (RST.9-10.4)	**Reading Literary Text** • Lesson 8: Make Inferences and Draw Conclusions • Lesson 9: Interpret Language: Word Choice, Meaning, Tone, and Imagery **Reading Informational Text** • Lesson 8: Determine Meaning: Technical Terms and Unknown Words • Lesson 9: Interpret Vocabulary: Denotative, Connotative and Figurative Meanings **Civics and Government** • Lesson 1: Foundational Principles of American Democracy: Determine and Summarize Main Idea • Lesson 2: Compare Foundational U.S. Documents: Use Context for Meaning of Unknown Word **United States History** • Lesson 1: The Beginning of Our Nation: Determine and Summarize Main Idea **Life Science** • Lesson 1: Energy Intake in the Human Body: Use Context to Define Uncommon Terms **Physical Science** • Lesson 3: The Atom: Understand Quantitative or Technical Information

CCR Standards	CCR Practice Workbooks
CCR Anchor 5: Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text. (RI.4.5) • Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. (RI.5.5) **Level D** • Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas. (RI.6.5) • Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas. (RI.7.5) **Level E** • Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter). (RI.9-10.5) • Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging. (RI.11-12.5)	**Reading Literary Text** • Lesson 4: Analyze Character, Dialogue, and Setting • Lesson 5: Analyze Plot Events • Lesson 6: Analyze Relationships within Texts: Compare and Contrast • Lesson 7: Analyze Relationships within Texts: Cause and Effect **Reading Informational Text** • Lesson 2: • Lesson 3: Analyze Relationships within Texts: Compare and Contrast • Lesson 4: Analyze Relationships within Texts: Cause and Effect • Lesson 5: Analyze Text Structure • Lesson 7: Understand and Use Multi-step Instructions **Civics and Government** • Lesson 4: Changes to the U.S. Constitution: Explain a Process • Lesson 5: Political Parties and Interest Groups: Analyze Point of View • Lesson 7: The Living Constitution: Analyze Cause and Effect **Economics** • Lesson 9: The Federal Reserve: Understand Organization **United States History** • Lesson 2: A Growing Republic: Analyze the Sequence of Events • Lesson 6: Depression and Recovery: Recognize Trend in Data **Geography and the World** • Lesson 4: Exploration and Settlement in the New World: Sequence Information

CCR Standards	CCR Practice Workbooks
CCR Anchor 6: Assess how point of view or purpose shapes the content and style of a text. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent. (RI.5.6) • Describe how a narrator's or speaker's point of view influences how events are described. (RL.5.6) **Level D** • Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints. (RI.8.6) • Identify aspects of a text that reveal an author's point of view or purpose (e.g., loaded language, inclusion or avoidance of particular facts). (RH.6-8.6) **Level E** • Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose. (RI.9-10.6) • *Application:* analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature. RL.9-10.6 • Analyze a case in which grasping point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement). (RL.11-12.6) • Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. (RH.9-10.6)	**Reading Literary Text** • Lesson 3: Determine an Author's Purpose and Point of View **Reading Informational Text** • Lesson 10: Interpret and Apply Written Policies and Procedures **Civics and Government** • Lesson 5: Political Parties and Interest Groups: Analyze Point of View • Lesson 6: Political Speeches: Evaluate an Argument **United States History** • Lesson 5: American Imperialism and Expansion: Determine and Analyze Point of View • Lesson 7: World War II and Recovery: Integrate Content Presented in Different Ways

CCR Standards	CCR Practice Workbooks
CCR Anchor 7: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears. (RI.4.7) • Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently. (RI.5.7) **Level D** • Integrate information presented in different media or formats (e.g., in charts, graphs, photographs, videos, or maps) as well as in words to develop a coherent understanding of a topic or issue. (RI.6.7) • Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). (RST.6-8.7) **Level E** • Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem. (RI.11-12.7) • Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words. (RST.9-10.7) • Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text. (RH.9-10.7)	**Reading Informational Text** • Lesson 7: Understand and Use Multi-step Instructions **Civics and Government** • Lesson 7: The Living Constitution: Analyze Cause and Effect • Lesson 8: Public Policy: Integrate Content Presented in Different Ways **Economics** • Lesson 2: Economic Factors: Analyze Visual Information **United States History** • Lesson 7: World War II and Recovery: Integrate Content Presented in Different Ways • Lesson 8: The Cold War: Analyze Cause and Effect **Geography and the World** • Lesson 3: Region and Place: Interpret Maps • Lesson 5: Immigration: Integrate Content Presented in Different Ways • Lesson 7: Natural Resources and Sustainability: Analyze Data **Life Science** • Lesson 4: Human Body and Health: Analyze Quantitative or Technical Information • Lesson 5: Factors Affecting Biodiversity: Apply Quantitative or Technical Information • Lesson 7: Evolution: Evaluate Multiple Sources of Information **Physical Science** • Lesson 3: The Atom: Understand Quantitative or Technical Information • Lesson 4: Electricity and Magnetism: Apply Quantitative or Technical Information • Lesson 7: Information Technologies and Instrumentation: Evaluate Multiple Sources of Information **Earth and Space Science** • Lesson 4: Weather and Climate: Apply Quantitative or Technical Information • Lesson 7: Large-Scale System Interactions: Evaluate Multiple Sources of Information

CCR Standards	CCR Practice Workbooks
CCR Anchor 8: Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s). (RI.5.8) **Level D** • Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced. (RI.8.8) **Level E** • Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning. (RI.9-10.8)	**Civics and Government** • Lesson 9: Civic Engagement: Evaluate the Reasoning of an Argument **Economics** • Lesson 8: The Labor Market: Evaluate an Argument **United States History** • Lesson 9: Civil Rights: Evaluate an Argument and Supporting Evidence • Lesson 10: U.S. Foreign Policy Post-Cold War: Make Inferences
CCR Anchor 9: Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C • Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (RI.5.9) **Level D** • Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the texts disagree on matters of fact or interpretation. (RI.8.9) **Level E** • Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts. (RI.9-10.9) • Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln's Second Inaugural Address) for their themes, purposes, and rhetorical features. (RI.11-12.9) • *Application:* compare and contrast treatments of the same topic in several primary and secondary sources. (RH.9-10.9) • Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts. (RST.9-10.9)	**Reading Informational Text** • Lesson 3: Analyze Relationships within Texts: Compare and Contrast **Civics and Government** • Lesson 9: Civic Engagement: Evaluate the Reasoning of an Argument **United States History** • Lesson 9: Civil Rights: Evaluate an Argument and Supporting Evidence **Life Science** • Lesson 7: Evolution: Evaluate Multiple Sources of Information **Physical Science** • Lesson 7: Information Technologies and Instrumentation: Evaluate Multiple Sources of Information **Earth and Space Science** • Lesson 7: : Large-Scale System Interactions: Evaluate Multiple Sources of Information

CCR Standards	CCR Practice Workbooks
WRITING STANDARDS	
CCR Anchor 1: Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.	
Level C • Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (W.5.1) **Level D** • Write arguments to support claims with clear reasons and relevant evidence. (W.7.1) **Level E** • Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. (W.9-10.1)	**Extended Response and Short Answers** • Lesson 2: Persuasive Text: Write an Introduction • Lesson 3: Persuasive Text: Write Supporting Paragraphs • Lesson 4: Persuasive Text: Write a Conclusion • Lesson 5: Write a Persuasive Essay
CCR Anchor 2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.	
Level C • Write informative/explanatory texts to examine a topic and convey ideas and information clearly. (W.4.2) **Level D** • Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content. [This includes the narration of historical events, scientific procedures/experiments, or technical processes.] (W/WHST.6-8.2) **Level E** • Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content. [This includes the narration of historical events, scientific procedures/experiments, or technical processes.] (W/WHST.9-10.2)	**Extended Response and Short Answers** • Lesson 8: Informative Essay: Write an Introduction • Lesson 9: Informative Essay: Organize Supporting Paragraphs • Lesson 10: Informative Essay: Write a Conclusion • Lesson 11: Informative Essay: Write an Informative Essay **Reading Informational Text** • Lesson 4: Analyze Relationships within Texts: Cause and Effect • Lesson 5: Analyze Text Structure • Lesson 7: Understand and Use Multi-step Instructions
CCR Anchor 3: Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences.	
Level B • Write narratives in which they recount a well-elaborated event or short sequence of events, include details to describe actions, thoughts, and feelings, use temporal words to signal event order, and provide a sense of closure. (W.2.3)	**Extended Response and Short Answers** • Lesson 1: Define Narrative Text **Reading Literary Text** • Lesson 4: Analyze Character, Dialogue, and Setting • Lesson 5: Analyze Plot Events

CCR Standards	CCR Practice Workbooks
CCR Anchor 4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	
Level C • Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (W.5.4) **Level D** • Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (W/WHST.6-8.4) **Level E** • Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (W/WHST.11-12.4)	**Extended Response and Short Answers** • Lesson 2: Persuasive Text: Write an Introduction • Lesson 3: Persuasive Text: Write Supporting Paragraphs • Lesson 4: Persuasive Text: Write a Conclusion • Lesson 5: Write a Persuasive Essay • Lesson 6: Revise and Edit a Persuasive Essay • Lesson 7: Informative Essay: Select a Topic • Lesson 8: Informative Essay: Write an Introduction • Lesson 9: Informative Essay: Organize Supporting Paragraphs • Lesson 10: Informative Essay: Write a Conclusion • Lesson 11: Informative Essay: Write an Informative Essay **The Writing Process** • Lesson 1: Paragraph Structure and Topic Sentences • Lesson 2: Tone and Diction • Lesson 3: Organization: Order of Importance and Sequence • Lesson 4: Organization: Comparison and Contrast and Cause and Effect • Lesson 5: Organization: Descriptions and Problem with Solutions • Lesson 6: Prewriting • Lesson 7: Writing • Lesson 8: Revising and Editing **Reading Informational Text** • Lesson 5: Analyze Text Structure
CCR Anchor 5: Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.	
Level C • With guidance and support from peers and others, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1–3 at this level.) (W.5.5) **Level D** • With some guidance and support from peers and others, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards 1–3 at this level.) (W/WHST.6-8.5) **Level E** • Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1–3 at this level.) (W.11-12.5)	**Extended Response and Short Answers** • Lesson 6: Revise and Edit a Persuasive Essay • Lesson 7: Informative Essay: Select a Topic • Lesson 12: Revise and Edit an Informative Essay **The Writing Process** • Lesson 6: Prewriting • Lesson 8: Revising and Editing

CCR Standards	CCR Practice Workbooks
CCR Anchor 6: Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.	
Level C • With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. (W.4.6) **Level D** • Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. (W.7.6) **Level E** • Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically. (W.9-10.6)	**Reading Literary Text** • Lesson 6: Analyze Relationships within Texts: Compare and Contrast
CCR Anchor 7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.	
Level C • Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic. (W.5.7) **Level D** • Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation. (W.7.7) **Level E** • Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. (W/WHST.11-12.7)	**Reading Informational Text** • Lesson 9: Interpret Vocabulary: Denotative, Connotative and Figurative Meanings
CCR Anchor 9: Draw evidence from literary or informational texts to support analysis, reflection, and research. *(Apply this standard to texts of appropriate complexity as outlined by Standard 10.)*	
Level C–E • Draw evidence from literary or informational texts to support analysis, reflection, and research. (W.5.9; W/WHST.6-8.9; W/WHST.11-12.9)	**Extended Response and Short Answers** • Lesson 1: Define Narrative Text

CCR Standards	CCR Practice Workbooks
LANGUAGE STANDARDS	
CCR Anchor 1: Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.	
Level C–E • Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (L.4.1, L.5.1/ L.6-.8.1/ L.9- 10.1) *See College and Career Readiness Standards for Adult Education for specific indicators within each level.*	**Extended Response and Short Answers** • Lesson 2: Persuasive Text: Write an Introduction • Lesson 3: Persuasive Text: Write Supporting Paragraphs • Lesson 4: Persuasive Text: Write a Conclusion • Lesson 5: Write a Persuasive Essay • Lesson 6: Revise and Edit a Persuasive Essay • Lesson 7: Informative Essay: Select a Topic • Lesson 8: Informative Essay: Write an Introduction • Lesson 9: Informative Essay: Organize Supporting Paragraphs • Lesson 10: Informative Essay: Write a Conclusion • Lesson 11: Informative Essay: Write an Informative Essay • Lesson 12: Revise and Edit an Informative Essay **The Writing Process** • Lesson 1: Paragraph Structure and Topic Sentences • Lesson 2: Tone and Diction • Lesson 3: Organization: Order of Importance and Sequence • Lesson 4: Organization: Comparison and Contrast and Cause and Effect • Lesson 5: Organization: Descriptions and Problem with Solutions • Lesson 6: Prewriting • Lesson 7: Writing • Lesson 8: Revising and Editing **Sentence Structure and Mechanics** • Lesson 1: Pronoun antecedent • Lesson 2: Subject-verb agreement • Lesson 3: Spelling • Lesson 4: Modifiers • Lesson 5: Parallel Structure • Lesson 6: Phrases • Lesson 7: Clauses: Independent and Dependent • Lesson 8: Phrases and Clauses with Punctuation

CCR Standards	CCR Practice Workbooks
CCR Anchor 2: Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
Level C–E • Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. (L.4.2, L.5.2/L.6.2- L.8.2/L.9- 10.2) *See College and Career Readiness Standards for Adult Education for specific indicators within each level.*	**Extended Response and Short Answers** • Lesson 2: Persuasive Text: Write an Introduction • Lesson 3: Persuasive Text: Write Supporting Paragraphs • Lesson 4: Persuasive Text: Write a Conclusion • Lesson 5: Write a Persuasive Essay • Lesson 6: Revise and Edit a Persuasive Essay • Lesson 7: Informative Essay: Select a Topic • Lesson 8: Informative Essay: Write an Introduction • Lesson 9: Informative Essay: Organize Supporting Paragraphs • Lesson 10: Informative Essay: Write a Conclusion • Lesson 11: Informative Essay: Write an Informative Essay • Lesson 12: Revise and Edit an Informative Essay **The Writing Process** • Lesson 1: Paragraph Structure and Topic Sentences • Lesson 2: Tone and Diction • Lesson 3: Organization: Order of Importance and Sequence • Lesson 4: Organization: Comparison and Contrast and Cause and Effect • Lesson 5: Organization: Descriptions and Problem with Solutions • Lesson 6: Prewriting • Lesson 7: Writing • Lesson 8: Revising and Editing **Sentence Structure and Mechanics** • Lesson 1: Pronoun antecedent • Lesson 3: Spelling • Lesson 4: Modifiers • Lesson 7: Clauses: Independent and Dependent • Lesson 8: Phrases and Clauses with Punctuation

CCR Standards	CCR Practice Workbooks
CCR Anchor 3: Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.	
Level C–D • Use knowledge of language and its conventions when writing, speaking, reading, or listening. (L.4.3, L.5.3/L.6.3, L.7.3) *See College and Career Readiness Standards for Adult Education for specific indicators within each level.*	**Extended Response and Short Answers** • Lesson 2: Persuasive Text: Write an Introduction • Lesson 3: Persuasive Text: Write Supporting Paragraphs • Lesson 4: Persuasive Text: Write a Conclusion • Lesson 5: Write a Persuasive Essay • Lesson 6: Revise and Edit a Persuasive Essay • Lesson 7: Informative Essay: Select a Topic • Lesson 8: Informative Essay: Write an Introduction • Lesson 9: Informative Essay: Organize Supporting Paragraphs • Lesson 10: Informative Essay: Write a Conclusion • Lesson 11: Informative Essay: Write an Informative Essay • Lesson 12: Revise and Edit an Informative Essay **The Writing Process** • Lesson 1: Paragraph Structure and Topic Sentences • Lesson 2: Tone and Diction • Lesson 3: Organization: Order of Importance and Sequence • Lesson 4: Organization: Comparison and Contrast and Cause and Effect • Lesson 5: Organization: Descriptions and Problem with Solutions • Lesson 6: Prewriting • Lesson 7: Writing • Lesson 8: Revising and Editing **Sentence Structure and Mechanics** • Lesson 1: Pronoun antecedent • Lesson 2: Subject-verb agreement • Lesson 3: Spelling • Lesson 4: Modifiers • Lesson 5: Parallel Structure • Lesson 6: Phrases • Lesson 7: Clauses: Independent and Dependent • Lesson 8: Phrases and Clauses with Punctuation **Reading: Literary Text** • Lesson 9: Interpret Language: Word Choice, Meaning, Tone, and Imagery **Reading: Informational Text** • Lesson 9: Interpret Vocabulary: Denotative, Connotative and Figurative Meanings

CCR Standards	CCR Practice Workbooks
CCR Anchor 4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.	
Level C–E • Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies. (L.4.4, L.5.4/L.6.4 / L.11-12.4) *See College and Career Readiness Standards for Adult Education for specific indicators within each level.*	**Reading: Informational Text** • Lesson 8: Determine Meaning: Technical Terms and Unknown Words • Lesson 9: Interpret Vocabulary: Denotative, Connotative and Figurative Meanings
CCR Anchor 5: Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	
Level C • Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. (L.5.5) *See College and Career Readiness Standards for Adult Education for specific indicators.*	**Reading: Informational Text** • Lesson 9: Interpret Vocabulary: Denotative, Connotative and Figurative Meanings
CCR Anchor 6: Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when encountering a word or phrase important to comprehension or expression.	

Level C
• Acquire and use accurately level-appropriate general academic and domain-specific words and phrases, including those that:
  • signal precise actions, emotions, or states of being (e.g., *quizzed, whined, stammered).*
  • are basic to a particular topic (e.g., *wildlife, conservation,* and *endangered* when discussing animal preservation).
  • signal contrast, addition, and other logical relationships (e.g., *however, although, nevertheless, similarly, moreover, in addition).* (L.4.6, L.5.6)
Level D
• Acquire and use accurately level-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. (L.8.6)
Level E
• Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. (L.11-12.6)
	Reading: Informational Text
	• Lesson 8: Determine Meaning: Technical Terms and Unknown Words
	The Writing Process
	• Lesson 1: Paragraph Structure and Topic Sentences
	• Lesson 2: Tone and Diction
	• Lesson 3: Organization: Order of Importance and Sequence
	• Lesson 4: Organization: Comparison and Contrast and Cause and Effect
	• Lesson 5: Organization: Descriptions and Problem with Solutions
	• Lesson 6: Prewriting
	• Lesson 7: Writing
	• Lesson 8: Revising and Editing

CCR Standards	CCR Practice Workbooks
LEVEL C: MATHEMATICS	
NUMBER AND OPERATIONS: BASE TEN (+ THE NUMBER SYSTEM)	
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. (4.NBT.2)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value
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. (4.NBT.5)	**Number Concepts** • Lesson 3: Integer Operations
Understand the place value system. 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. (5.NBT.1)	**Number Concepts** • Lesson 9: Decimal Operations
Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. (5.NBT.2)	**Number Concepts** • Lesson 9: Decimal Operations
Use place value understanding to round decimals to any place. (5.NBT.4)	**Number Concepts** • Lesson 9: Decimal Operations
Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. (5.NBT.7)	**Number Concepts** • Lesson 9: Decimal Operations
THE NUMBER SYSTEM	
Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. (6.NS.3)	**Number Concepts** • Lesson 9: Decimal Operations
Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4(9 + 2).* (6.NS.4)	**Number Concepts** • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions

CCR Standards	CCR Practice Workbooks
NUMBER AND OPERATIONS: FRACTIONS	
Extend understanding of fraction equivalence and ordering. 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. (4.NF.1)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. (4.NF.2)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. (4.NF.3a)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
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., by using a visual fraction model. *Examples: 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.* (4.NF.3b)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. (4.NF.3c)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem. (4.NF.3d)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. (4.NF.4)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?* (4.NF.4c)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions

CCR Standards	CCR Practice Workbooks
Understand decimal notation for fractions, and compare decimal fractions. Use decimal notation for fractions with denominators 10 or 100. *For example, rewrite 0.62 as 62/100 ; describe a length as 0.62 meters; locate 0.62 on a number line diagram.* (4.NF.6)	**Number Concepts** • Lesson 2: Comparing and Ordering Rational Numbers
Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. (4.NF.7)	**Number Concepts** • Lesson 2: Comparing and Ordering Rational Numbers
Use equivalent fractions as strategy to add and subtract fractions. 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. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.* (5.NF.1)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.* (5.NF.2)	**Number Concepts** • Lesson 7: Adding and Subtracting Fractions
Apply and extend previous understanding of multiplication and division to multiply and divide fractions. 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., by using visual fraction models or equations to represent the problem. *For example, 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. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?* (5.NF.3)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. (5.NF.4)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions

CCR Standards	CCR Practice Workbooks
Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a) / (n \times b)$ to the effect of multiplying a/b by 1. (5.NF.5)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. (5.NF.6)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (5.NF.7)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. *For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.* (5.NF.7a)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Interpret division of a whole number by a unit fraction, and compute such quotients. *For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.* (5.NF.7b)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, 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?* (5.NF.7c)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions

CCR Standards	CCR Practice Workbooks
THE NUMBER SYSTEM	
Apply and extend previous understandings of multiplication and division to divide fractions by fractions. 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. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because ¾ of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/cb.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?* (6.NS.1)	**Number Concepts** • Lesson 8: Multiplying and Dividing Fractions
RATIOS AND PROPORTIONAL RELATIONSHIPS	
Understand ratio concepts and use ratio reasoning to solve problems. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2 : 1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."* (6.RP.1)	**Ratios, Proportions, and Percents** • Lesson 1: Ratios and Ratio Tables
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. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."* (6.RP.2)	**Ratios, Proportions, and Percents** • Lesson 1: Ratios and Ratio Tables • Lesson 3: Unit Rates
OPERATIONS AND ALGEBRAIC THINKING	
Use the four operations with whole numbers to solve problems. 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. (4.OA.1)	**Basic Algebra** • Lesson 3: Properties •
Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. (4.OA.2)	**Basic Algebra** • Lesson 3: Properties

CCR Standards	CCR Practice Workbooks
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. (4.OA.3)	**Basic Algebra** • Lesson 1: Translating Variable Expressions
Gain familiarity with factors and multiples. 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. (4.OA.4)	**Number Concepts** • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions
Write and interpret numerical expressions. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. (5.OA.1)	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 4: Evaluating Expressions
Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (2100 + 425) is three times as large as the 2100 + 425, without having to calculate the indicated sum or product.* (5.OA.2)	**Basic Algebra** • Lesson 1: Translating Variable Expressions
EXPRESSIONS AND EQUATIONS	
Apply and extend previous understandings of arithmetic to algebraic expressions. Write and evaluate numerical expressions involving whole-number exponents. (6.EE.1)	**Basic Algebra** • Lesson 4: Evaluating Expressions
Write, read, and evaluate expressions in which letters stand for numbers. (6.EE.2)	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 4: Evaluating Expressions
Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 – y.* (6.EE.2a)	**Basic Algebra** • Lesson 1: Translating Variable Expressions
Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.* (6.EE.2b)	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 5: Equivalent Expressions

CCR Standards	CCR Practice Workbooks
Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas* $V = s^3$ *and* $A = 6s^2$ *to find the volume and surface area of a cube with sides of length* $s = 1/2$. (6.EE.2c)	**Basic Algebra** • Lesson 2: Order of Operations • Lesson 4: Evaluating Expressions **Number Concepts** • Lesson 5: Exponents and Roots
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* $3y$. (6.EE.3)	**Basic Algebra** • Lesson 2: Order of Operations • Lesson 3: Properties • Lesson 5: Equivalent Expressions
Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions* $y + y + y$ *and* $3y$ *are equivalent because they name the same number regardless of which number* y *stands for.* (6.EE.4)	**Basic Algebra** • Lesson 5: Equivalent Expressions
Reason about and solve one-variable equations and inequalities. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. (6.EE.5)	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 14: Solving One- Variable Inequalities
Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. (6.EE.6)	**Basic Algebra** • Lesson 1: Translating Variable Expressions
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. (6.EE.7)	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations
Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams. (6.EE.8)	**Basic Algebra** • Lesson 14: Solving One- Variable Inequalities

CCR Standards	CCR Practice Workbooks
Represent and analyze quantitative relationships between dependent and independent variables. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.* (6.EE.9)	**Basic Algebra** • Lesson 11: Functions • Lesson 12: Rate of Change and Slope
GEOMETRY	
Draw and identify lines and angles, and classify shapes by properties of their lines and angles. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. (4.G.1)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals
Graph points on the coordinate plane to solve real-world and mathematical problems. 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). (5.G.1)	**Number Concepts** • Lesson 4: The Coordinate Grid
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. (5.G.2)	**Number Concepts** • Lesson 4: The Coordinate Grid
Classify two-dimensional figures into categories based on their properties. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.* (5.G.3)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals • Lesson 4: Perimeter and Area of Polygons • Lesson 5: Circumference and Area of a Circle

CCR Standards	CCR Practice Workbooks
Solve real-world and mathematical problems involving area, surface area, and volume. 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. (6.G.1)	**Geometry and Measurement** • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons • Lesson 6: Area and Perimeter of Composite Shapes
Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. (6.G.3)	**Geometry and Measurement** • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons
Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. (6.G.4)	**Geometry and Measurement** • Lesson 10: Surface Area • Lesson 12: Surface Area and Volume of Composite Figures
MEASUREMENT AND DATA	
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. 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. (4.MD.2)	**Geometry and Measurement** • Lesson 1: Measuring and Converting Units
Apply the area and perimeter formulas for rectangles in real world and mathematical problems. *For example, 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.* (4.MD.3)	**Geometry and Measurement** • Lesson 4: Perimeter and Area of Polygons • Lesson 6: Area and Perimeter of Composite Shapes

CCR Standards	CCR Practice Workbooks
Geometric measurement: understand concepts of angle and measure angles. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. b. An angle that turns through *n* one-degree angles is said to have an angle measure of *n* degrees. (4.MD.5)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals
Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. (4.MD.7)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals
Convert like measurement units within a given measurement system. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems. (5.MD.1)	**Geometry and Measurement** • Lesson 1: Measuring and Converting Units
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. 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. (5.MD.3)	**Geometry and Measurement** • Lesson 11: Volume
Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units. (5.MD.4)	**Geometry and Measurement** • Lesson 11: Volume
Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. (5.MD.5)	**Geometry and Measurement** • Lesson 11: Volume

CCR Standards	CCR Practice Workbooks
Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. (5.MD.5a)	**Geometry and Measurement** • Lesson 11: Volume
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. (5.MD.5b)	**Geometry and Measurement** • Lesson 11: Volume
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. (5.MD.5c)	**Geometry and Measurement** • Lesson 12: Surface Area and Volume of Composite Figures
STATISTICS AND PROBABILITY	
Develop understanding of statistical variability. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.* (6.SP.1)	**Data Analysis and Probability** • Lesson 7: Sampling and Comparing Populations
Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. (6.SP.2)	**Data Analysis and Probability** • Lesson 3: Displaying Data I • Lesson 6: Distribution of Data
Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number. (6.SP.3)	**Data Analysis and Probability** • Lesson 6: Distribution of Data
Summarize and describe distributions. Display numerical data in plots on a number line, including dot plots, histograms, and box plots. (6.SP.4) [Also see S.ID.1]	**Data Analysis and Probability** • Lesson 2: Box Plots • Lesson 3: Displaying Data I

CCR Standards	CCR Practice Workbooks
LEVEL D: MATHEMATICS	
THE NUMBER SYSTEM	
Apply and extend previous understandings of numbers to the system of rational numbers.	
Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. (6.NS.5)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value
Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. (6.NS.6)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 3: Integer Operations • Lesson 4: The Coordinate Grid
Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite. (6.NS.6a)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 3: Integer Operations
Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. (6.NS.6b)	**Number Concepts** • Lesson 4: The Coordinate Grid
Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane. (6.NS.6c)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 4: The Coordinate Grid
Understand ordering and absolute value of rational numbers. (6.NS.7)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 9: Decimal Operations
Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.* (6.NS.7a)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value
Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3 C° > –7 °C to express the fact that –3°C is warmer than –7°C .* (6.NS.7b)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers

CCR Standards	CCR Practice Workbooks
Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write* $\|-30\| = 30$ *to describe the size of the debt in dollars.* (6.NS.7c)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value
Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.* (6.NS.7d)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value
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. (6.NS.8)	**Number Concepts** • Lesson 4: The Coordinate Grid
Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	
Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. (7.NS.1)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions
Describe situations in which opposite quantities combine to make 0. *For example, if a check is written for the same amount as a deposit, made to the same checking account, the result is a zero increase or decrease in the account balance.* (7.NS.1a)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions
Understand $p + q$ as the number located a distance $\|q\|$ from p, in the positive or negative direction depending on whether q is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts. (7.NS.1b)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions
Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts. (7.NS.1c)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions
Apply properties of operations as strategies to add and subtract rational numbers. (7.NS.1d)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions • Lesson 9: Decimal Operations

CCR Standards	CCR Practice Workbooks
Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. (7.NS.2)	**Number Concepts** • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions • Lesson 8: Multiplying and Dividing Fractions
Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. (7.NS.2a)	**Basic Algebra** • Lesson 3: Properties
Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then $-(p/q) = (-p)/q = p(-q)$. Interpret quotients of rational numbers by describing real-world contexts. (7.NS.2b)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions
Apply properties of operations as strategies to multiply and divide rational numbers. (7.NS.2c)	**Number Concepts** • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions • Lesson 8: Multiplying and Dividing Fractions
Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. (7.NS.2d)	**Number Concepts** • Lesson 9: Decimal Operations
Solve real-world and mathematical problems involving the four operations with rational numbers. (7.NS.3)	**Number Concepts** • Lesson 1: The Real Number System, Integers, and Absolute Value • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 3: Integer Operations • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions • Lesson 7: Adding and Subtracting Fractions • Lesson 8: Multiplying and Dividing Fractions • Lesson 9: Decimal Operations
Know that there are numbers that are not rational, and approximate them by rational numbers.	
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 (e.g., π^2). *For example, by truncating the decimal expansion of $\sqrt{2}$, show that $\sqrt{2}$ is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations*. (8.NS.2)	**Number Concepts** • Lesson 5: Exponents and Roots

CCR Standards	CCR Practice Workbooks
Understand ratio concepts and use ratio reasoning to solve problems.	
Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations. (6.RP.3)	**Ratios, Proportions, and Percents** • Lesson 1: Ratios and Ratio Tables • Lesson 2: Finding Proportions with Models • Lesson 5: Proportions and Scale Factor • Lesson 6: Proportional Relationships • Lesson 7: Solving Proportions **Geometry and Measurement** • Lesson 1: Measuring and Converting Units • Lesson 8: Scale Drawings and Measurement
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. (6.RP.3a)	**Ratios, Proportions, and Percents** • Lesson 1: Ratios and Ratio Tables • Lesson 4: Graphing Proportions
Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?* (6.RP.3b)	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates
Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent. (6.RP.3c)	**Ratios, Proportions, and Percents** • Lesson 8: Proportions and Percentages • Lesson 9: Mental Math and Percentages • Lesson 10: Percentage Equations • Lesson 11: Use Percentages in the Real World
Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities. (6.RP.3d)	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 7: Solving Proportions **Geometry and Measurement** • Lesson 1: Measuring and Converting Units
Analyze proportional relationships and use them to solve real-world and mathematical problems.	
Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. *For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction ½ / ¼ miles per hour, equivalently 2 miles per hour.* (7.RP.1)	**Number Concepts** • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions **Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 7: Solving Proportions
Recognize and represent proportional relationships between quantities. (7.RP.2)	**Ratios, Proportions, and Percents** • Lesson 2: Finding Proportions with Models • Lesson 4: Graphing Proportions • Lesson 6: Proportional Relationships • Lesson 7: Solving Proportions

CCR Standards	CCR Practice Workbooks
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. (7.RP.2a)	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 4: Graphing Proportions • Lesson 6: Proportional Relationships
Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. (7.RP.2b) [Also see 8.EE.5]	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 4: Graphing Proportions • Lesson 6: Proportional Relationships
Represent proportional relationships by equations. *For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.* (7.RP.2c)	**Ratios, Proportions, and Percents** • Lesson 4: Graphing Proportions
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. (7.RP.2d)	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 4: Graphing Proportions
Use proportional relationships to solve multistep ratio and percent problems. *Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.* (7.RP.3) [Also see 7.G.1 and G.MG.2]	**Ratios, Proportions, and Percents** • Lesson 5: Proportions and Scale Factor • Lesson 7: Solving Proportions • Lesson 8: Proportions and Percentages • Lesson 11: Use Percentages in the Real World
EXPRESSIONS AND EQUATIONS	
Use properties of operations to generate equivalent expressions.	
Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. (7.EE.1)	**Basic Algebra** • Lesson 2: Order of Operations
Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."* (7.EE.2) [Also see A.SSE.2, A.SSE.3, A.SSE.3a, A.CED.4]	**Basic Algebra** • Lesson 5: Equivalent Expressions

CCR Standards	CCR Practice Workbooks
Solve real-life and mathematical problems using numerical and algebraic expressions and equations	
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. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9¾ inches long in the center of a door that is 27½ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.* (7.EE.3)	**Number Concepts** • Lesson 2: Comparing and Ordering Rational Numbers • Lesson 5: Exponents and Roots • Lesson 6: Greatest Common Factor, Least Common Multiple, and Simplifying Fractions • Lesson 7: Adding and Subtracting Fractions • Lesson 9: Decimal Operations **Ratios, Proportions, and Percents** • Lesson 11: Use Percentages in the Real World **Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations
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. (7.EE.4) [Also see A.CED.1 and A.REI.3]	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations • Lesson 14: Solving One- Variable Inequalities **Intermediate Algebra** • Lesson 4: Graphing 2-Variable Inequalities
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. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?* (7.EE.4a [Also see A.CED.1 and A.REI.3]	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations • Lesson 10: Solving for a Variable/Rearranging Formulas
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. *For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.* (7.EE.4b) [Also see A.CED.1 and A.REI.3]	**Basic Algebra** • Lesson 14: Solving One- Variable Inequalities
Work with radicals and integer exponents.	
Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example,* $3^2 \times 3^{(-5)} = 3^{(-3)} = (1/3)^3 = 1/27$. (8.EE.1) [Also see F.IF.8b]	**Intermediate Algebra** • Lesson 5: Exponents

CCR Standards	CCR Practice Workbooks
Use square root and cube root symbols to represent solutions to equations of the form $x^2 = p$ and $x^3 = p$, where p is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{2}$ is irrational. (8.EE.2) [Also see A.REI.2]	**Number Concepts** • Lesson 5: Exponents and Roots **Intermediate Algebra** • Lesson 7: Radicals
Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as* 3×10^8 *and the population of the world as* 7×10^9*, and determine that the world population is more than 20 times larger.* (8.EE.3)	**Number Concepts** • Lesson 10: Scientific Notation **Intermediate Algebra** • Lesson 5: Exponents
Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. (8.EE.4) [Also see N.Q.3]	**Number Concepts** • Lesson 10: Scientific Notation **Intermediate Algebra** • Lesson 5: Exponents
Understand the connections between proportional relationships, lines, and linear equations.	
Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.* (8.EE.5) [Also see 7.RP.2b]	**Ratios, Proportions, and Percents** • Lesson 3: Unit Rates • Lesson 4: Graphing Proportions
Analyze and solve linear equations and pairs of simultaneous linear equations.	
Solve linear equations in one variable. (8.EE.7) [Also see A.REI.3]	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations
Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). (8.EE.7a)	**Basic Algebra** • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations
Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. (8.EE.7b)	**Basic Algebra** • Lesson 7: Combining Like Terms • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations

CCR Standards	CCR Practice Workbooks
Analyze and solve pairs of simultaneous linear equations. (8.EE.8)	**Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 3: Solving Systems of Equations using Substitution and Elimination
Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously. (8.EE.8a)	**Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 3: Solving Systems of Equations using Substitution and Elimination
Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example, 3x + 2y = 5 and 3x + 2y = 6 have no solution because 3x + 2y cannot simultaneously be 5 and 6.* (8.EE.8b) [Also see A.REI.6]	**Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 3: Solving Systems of Equations using Substitution and Elimination
Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.* (8.EE.8c)	**Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 3: Solving Systems of Equations using Substitution and Elimination
FUNCTIONS	
Define, evaluate, and compare functions.	
Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. (8.F.1) [Also see F.IF.1]	**Basic Algebra** • Lesson 11: Functions
Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1, 1), (2, 4) and (3, 9), which are not on a straight line.* (8.F.3)	**Basic Algebra** • Lesson 13: Graphing Linear Functions
Use functions to model relationships between quantities.	
Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values. (8.F.4) [Also see F.BF.1 and F.LE.5]	**Basic Algebra** • Lesson 12: Rate of Change and Slope • Lesson 13: Graphing Linear Functions

CCR Standards	CCR Practice Workbooks
Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally. (8.F.5) [Also see A.REI.10 and F.IF.7]	**Basic Algebra** • Lesson 12: Rate of Change and Slope • Lesson 13: Graphing Linear Functions
GEOMETRY	
Draw, construct, and describe geometrical figures and describe the relationships between them.	
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. (7.G.1) [Also see 7.RP.3]	**Ratios, Proportions, and Percents** • Lesson 5: Proportions and Scale Factor **Geometry and Measurement** • Lesson 8: Scale Drawings and Measurement
Solve real-life and mathematical problems involving angle, measure, area, surface area, and volume.	
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. (7.G.4)	**Geometry and Measurement** • Lesson 5: Circumference and Area of a Circle
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. (7.G.5)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals
Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. (7.G.6) [Also see G.GMD.3]	**Geometry and Measurement** • Lesson 4: Perimeter and Area of Polygons • Lesson 6: Area and Perimeter of composite shapes • Lesson 10: Surface Area • Lesson 11: Volume • Lesson 12: Surface Area and Volume of Composite Figures
Understand congruence and similarity using physical models, transparencies, or geometry software.	
Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. (8.G.2) [Also see G.SRT.5]	**Geometry and Measurement** • Lesson 7: Transformations
Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. (8.G.4) [Also see G.SRT.5]	**Geometry and Measurement** • Lesson 7: Transformations

CCR Standards	CCR Practice Workbooks
Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.* (8.G.5)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals
Understand and apply the Pythagorean Theorem.	
Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. (8.G.7)	**Geometry and Measurement** • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons • Lesson 6: Area and Perimeter of composite shapes • Lesson 10: Surface Area • Lesson 11: Volume
Apply the Pythagorean Theorem to find the distance between two points in a coordinate system. (8.G.8)	**Geometry and Measurement** • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons
STATISTICS AND PROBABILITY	
Summarize and describe distributions.	
Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. 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. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. (6.SP.5)	**Data Analysis and Probability** • Lesson 2: Box Plots • Lesson 5: Mean Absolute Deviation • Lesson 6: Distribution of Data
Use random sampling to draw inferences about a population.	
Understand that statistics can be used to gain information about a population by examining a sample of the population; 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. (7.SP.1)	**Data Analysis and Probability** • Lesson 7: Sampling and Comparing Populations

CCR Standards	CCR Practice Workbooks
Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. *For example, estimate the mean word length in a book by randomly sampling* 5 *words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.* (7.SP.2)	**Data Analysis and Probability** • Lesson 7: Sampling and Comparing Populations
Draw informal comparative inferences about two populations.	
Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. *For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.* (7.SP.3)	**Data Analysis and Probability** • Lesson 5: Mean Absolute Deviation
Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. *For example, decide whether the words in one chapter of a science book are generally longer or shorter than the words in another chapter of a lower level science book.* (7.SP.4) [Also see S.ID.3]	**Data Analysis and Probability** • Lesson 2: Box Plots • Lesson 3: Displaying Data I
Investigate chance processes and develop, use, and evaluate probability models.	
Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. (7.SP.5)	**Data Analysis and Probability** • Lesson 11: Determine Probability
Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. *For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.* (7.SP.6)	**Data Analysis and Probability** • Lesson 11: Determine Probability

CCR Standards	CCR Practice Workbooks
Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. (7.SP.7)	**Data Analysis and Probability** • Lesson 11: Determine Probability
Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. *For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.* (7.SP.7a)	**Data Analysis and Probability** • Lesson 11: Determine Probability
Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process. *For example, find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open-end down. Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies?* (7.SP.7b)	**Data Analysis and Probability** • Lesson 11: Determine Probability
Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. (7.SP.8a)	**Data Analysis and Probability** • Lesson 11: Determine Probability
Investigate patterns of association in bivariate data.	
Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. (8.SP.1) [Also see S.ID.1]	**Data Analysis and Probability** • Lesson 9: Scatter Plots
Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line. (8.SP.2)	**Data Analysis and Probability** • Lesson 9: Scatter Plots
Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they like to cook and whether they participate actively in a sport. Is there evidence that those who like to cook also tend to play sports?* (8.SP.4) [Also see S.ID.5]	**Data Analysis and Probability** • Lesson 8: Displaying Two-Variable Data

CCR Standards	CCR Practice Workbooks
LEVEL E: MATHEMATICS	
NUMBER AND QUANTITY	
The Real Number System	
Extend the properties of exponents to rational exponents. Rewrite expressions involving radicals and rational exponents using the properties of exponents. (N.RN.2)	**Intermediate Algebra** • Lesson 5: Exponents • Lesson 7: Radicals
Quantities	
Reason quantitatively and use units to solve problems. 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.* (N.Q.1)	**Geometry and Measurement** • Lesson 1: Measuring and Converting Units • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons • Lesson 5: Circumference and Area of a Circle • Lesson 6: Area and Perimeter of composite shapes • Lesson 8: Scale Drawings and Measurement • Lesson 10: Surface Area • Lesson 11: Volume • Lesson 12: Surface Area and Volume of Composite Figures **Physical Science** • Lesson 5: Electromagnetic Radiation; Quantitative Problem Solving **Earth and Space Science** • Lesson 5: Human Impacts on Earth Systems; Quantitative Problem Solving
Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.* (N.Q.3) [Also see 8.EE.4]	**Number Concepts** • Lesson 5: Exponents and Roots • Lesson 7: Adding and Subtracting Fractions • Lesson 8: Multiplying and Dividing Fractions • Lesson 10: Scientific Notation **Geometry and Measurement** • Lesson 1: Measuring and Converting Units • Lesson 3: Pythagorean Theorem • Lesson 4: Perimeter and Area of Polygons • Lesson 5: Circumference and Area of a Circle • Lesson 6: Area and Perimeter of composite shapes • Lesson 8: Scale Drawings and Measurement • Lesson 10: Surface Area • Lesson 11: Volume • Lesson 12: Surface Area and Volume of Composite Figures **Physical Science** • Lesson 5: Electromagnetic Radiation; Quantitative Problem Solving **Earth and Space Science** • Lesson 5: Human Impacts on Earth Systems; Quantitative Problem Solving

CCR Standards	CCR Practice Workbooks
ALGEBRA	
Seeing Structure in Expressions	
Interpret the structure of expressions. Interpret expressions that represent a quantity in terms of its context.* (A.SSE.1)	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 5: Equivalent Expressions
Interpret parts of an expression, such as terms, factors, and coefficients.* (A.SSE.1a)	**Basic Algebra** • Lesson 1: Translating Variable Expressions • Lesson 5: Equivalent Expressions • Lesson 7: Combining Like Terms **Intermediate Algebra** • Lesson 8: Adding and Subtracting Rational Expressions
Use the structure of an expression to identify ways to rewrite it. *For example, see* $x^4 - y^4$ *as* $(x^2)^2 - (y^2)^2$ *, thus recognizing it as a difference of squares that can be factored as* $(x^2 - y^2)(x^2 + y^2)$. (A.SSE.2) [Also see 7.EE.2]	**Basic Algebra** • Lesson 5: Equivalent Expressions **Intermediate Algebra** • Lesson 8: Adding and Subtracting Rational Expressions • Lesson 9: Multiplying Rational Expressions • Lesson 11: Factoring Polynomials • Lesson 12: Solving Polynomials by Factoring
Write expressions in equivalent forms to solve problems. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.* (A.SSE.3) [Also see 7.EE.2]	**Basic Algebra** • Lesson 5: Equivalent Expressions **Intermediate Algebra** • Lesson 8: Adding and Subtracting Rational Expressions • Lesson 9: Multiplying Rational Expressions • Lesson 11: Factoring Polynomials • Lesson 12: Solving Polynomials by Factoring
Factor a quadratic expression to reveal the zeros of the function it defines.* (A.SSE.3a) [Also see 7.EE.2]	**Intermediate Algebra** • Lesson 11: Factoring Polynomials • Lesson 12: Solving Polynomials by Factoring • Lesson 13: Solving Quadratics by Roots and Completing the Square
Arithmetic with Polynomials and Rational Expressions	
Perform arithmetic operations on polynomials. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. (A.APR.1)	**Intermediate Algebra** • Lesson 8: Adding and Subtracting Rational Expressions • Lesson 9: Multiplying Rational Expressions
Rewrite rational expressions. Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system. (A.APR.6)	**Intermediate Algebra** • Lesson 15: Multiple Representations of Quadratics

CCR Standards	CCR Practice Workbooks
Creating Equations	
Create equations that describe numbers or relationships. Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.** (A.CED.1) [Also see 7.EE.4, 7.EE.4a, and 7.EE.4b]	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations • Lesson 14: Solving One- Variable Inequalities **Intermediate Algebra** • Lesson 6: Graphing Exponential Functions
Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.* (A.CED.2)	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 1: Writing Linear Equations • Lesson 14: Quadratic Formula
Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non- viable options in a modeling context. *For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.** (A.CED.3)	**Basic Algebra** • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations • Lesson 13: Graphing Linear Functions • Lesson 14: Solving One- Variable Inequalities **Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 4: Graphing 2-Variable Inequalities
Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. *For example, rearrange Ohm's law V = IR to highlight resistance R.** (A.CED.4) [Also see 7.EE.2]	**Basic Algebra** • Lesson 10: Solving for a Variable/Rearranging Formulas
Reasoning with Equations and Inequalities	
Understand solving equations as a process of reasoning and explain the reasoning. 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. (A.REI.1)	**Basic Algebra** • Lesson 3: Properties • Lesson 6: Solving 2-Step Equations
Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise. (A.REI.2) [Also see 8.EE.2]	**Intermediate Algebra** • Lesson 7: Radicals
Solve equations and inequalities in one variable. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. (A.REI.3) [Also see 7.EE.4, 7.EE.4a, 7.EE.4b, and 8.EE.7]	**Basic Algebra** • Lesson 6: Solving 2-Step Equations • Lesson 8: Solving Multi-Step Equations • Lesson 9: Writing Equations • Lesson 10: Solving for a Variable/Rearranging Formulas • Lesson 14: Solving One- Variable Inequalities

CCR Standards	CCR Practice Workbooks
Solve quadratic equations in one variable. (A.REI.4)	**Intermediate Algebra** • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 11: Factoring Polynomials • Lesson 12: Solving Polynomials by Factoring • Lesson 13: Solving Quadratics by Roots and Completing the Square • Lesson 14: Quadratic Formula
Solve systems of equations. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. (A.REI.6) [Also see 8.EE.8b]	**Intermediate Algebra** • Lesson 2: Solving Systems of Equations by Graphing • Lesson 3: Solving Systems of Equations using Substitution and Elimination
Represent and solve equations and inequalities graphically. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). (A.REI.10) [Also see 8.F.5]	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 4: Graphing 2-Variable Inequalities • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 14: Quadratic Formula
FUNCTIONS	
Interpreting Functions	
Understand the concept of a function and use function notation. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If *f* is a function and *x* is an element of its domain, then *f(x)* denotes the output of *f* corresponding to the input *x*. The graph of *f* is the graph of the equation $y = f(x)$. (F.IF.1) [Also see 8.F.1]	**Basic Algebra** • Lesson 11: Functions
Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context. (F.IF.2)	**Basic Algebra** • Lesson 11: Functions **Intermediate Algebra** • Lesson 1: Writing Linear Equations • Lesson 6: Graphing Exponential Functions • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 12: Solving Polynomials by Factoring • Lesson 15: Multiple Representations of Quadratics

CCR Standards	CCR Practice Workbooks
Interpret functions that arise in applications in terms of the context. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *For example, for a quadratic function modeling a projectile in motion, interpret the intercepts and the vertex of the function in the context of the problem.** (F.IF.4) [*Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.]*	**Basic Algebra** • Lesson 12: Rate of Change and Slope • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 14: Quadratic Formula
Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.** (F.IF.5)	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 14: Quadratic Formula
Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.* (F.IF.6)	**Basic Algebra** • Lesson 12: Rate of Change and Slope • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 10: Interpreting Quadratic Equation Graphs • Lesson 14: Quadratic Formula
Analyze functions using different representations. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.* (F.IF.7) [Also see 8.F.5]	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 6: Graphing Exponential Functions • Lesson 14: Quadratic Formula • Lesson 15: Multiple Representations of Quadratics
Use properties of exponents to interpret expressions for exponential functions. *For example, identify percent rate of change in an exponential function and then classify it as representing exponential growth or decay.* (F.IF.8b) [Also see 8.EE.1]	**Intermediate Algebra** • Lesson 6: Graphing Exponential Functions
Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.* (F.IF.9)	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 6: Graphing Exponential Functions

CCR Standards	CCR Practice Workbooks
Building Functions	
Build a function that models a relationship between two quantities. Write a function that describes a relationship between two quantities.* (F.BF.1) [Also see 8.F.4]	**Basic Algebra** • Lesson 11: Functions
Linear, Quadratic, and Exponential Models	
Construct and compare linear, quadratic, and exponential models and solve problems. Distinguish between situations that can be modeled with linear functions and with exponential functions.* (F.LE.1)	**Intermediate Algebra** • Lesson 6: Graphing Exponential Functions
Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.* (F.LE.1b)	**Basic Algebra** • Lesson 13: Graphing Linear Functions
Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.* (F.LE.1c)	**Intermediate Algebra** • Lesson 6: Graphing Exponential Functions
Interpret expressions for functions in terms of the situation they model. Interpret the parameters in a linear or exponential function in terms of a context.* (F.LE.5) [Also see 8.F.4]	**Basic Algebra** • Lesson 13: Graphing Linear Functions **Intermediate Algebra** • Lesson 6: Graphing Exponential Functions
GEOMETRY	
Congruence	
Experiment with transformations in the plane. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. (G.CO.1)	**Geometry and Measurement** • Lesson 2: Angles, Parallel lines, Transversals • Lesson 4: Perimeter and Area of Polygons • Lesson 5: Circumference and Area of a Circle • Lesson 7: Transformations
Similarity, Right Triangles, and Trigonometry	
Prove theorems involving similarity. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. (G.SRT.5) [Also see 8.G.2 and 8.G.4]	**Geometry and Measurement** • Lesson 9: Similar and Congruent Polygons
Geometric Measurement and Dimension	
Explain volume formulas and use them to solve problems. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.* (G.GMD.3) [Also see 7.G.6]	**Geometry and Measurement** • Lesson 11: Volume • Lesson 12: Surface Area and Volume of Composite Figures

CCR Standards	CCR Practice Workbooks
Modeling with Geometry	
Apply geometric concepts in modeling situations. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).* (G.MG.2) [Also see 7.RP.3]	**Geometry and Measurement** • Lesson 4: Perimeter and Area of Polygons • Lesson 5: Circumference and Area of a Circle • Lesson 6: Area and Perimeter of Composite Shapes • Lesson 11: Volume • Lesson 12: Surface Area and Volume of Composite Figures
STATISTICS AND PROBABILITY	
Interpreting Categorical and Quantitative Data	
Summarize, represent, and interpret data on a single count or measurable variable. Represent data with plots on the real number line (dot plots, histograms, and box plots). (S.ID.1) [Also see 6.SP.4 and 8.SP.1]	**Data Analysis and Probability** • Lesson 2: Box Plots • Lesson 3: Displaying Data I
Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers). (S.ID.3) [Also see 7.SP.4]	**Data Analysis and Probability** • Lesson 2: Box Plots • Lesson 5: Mean Absolute Deviation • Lesson 6: Distribution of Data
Summarize, represent, and interpret data on two categorical and quantitative variables. 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. (S.ID.5) [Also see 8.SP.4]	**Data Analysis and Probability** • Lesson 8: Displaying Two-Variable Data
Interpret linear models. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data. (S.ID.7) [Also see 8.SP.3]	**Data Analysis and Probability** • Lesson 9: Scatter Plots **Basic Algebra** • Lesson 12: Rate of Change and Slope • Lesson 13: Graphing Linear Functions
Distinguish between correlation and causation. (S.ID.9)	**Data Analysis and Probability** • Lesson 9: Scatter Plots

McGraw-Hill Education College and Career Readiness Resources

The resources listed below are all student materials. Please note that for all programs listed except for the *Achieving TABE Success* Series, there are additional teacher resources available that include instructional guidance, activities, and suggestions for providing comprehensive coverage of the standards and skills being taught within the student lesson. For more information about all of these series, or to contact a sales representative, go to www.mheducation.com.

Achieving TABE Success

Achieving TABE Success In Reading, Level M Workbook	978-0-07-704460-2	Achieving TABE Success In Mathematics, Level M Workbook	978-0-07-704468-8
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