Content Emphasis in the Common Core Standards

Major Areas of Emphasis

Not all of the content in a given grade is emphasized equally in the Common Core Standards. Some clusters of the standards require greater emphasis than others. This greater emphasis may be based on the depth of the ideas, the time that students need to master the concepts, the content's importance to future mathematics topics, or a combination of some or all of these. A greater focus on the most critical material at each grade allows for lessons to go more in-depth and for students to have more time to master concepts and mathematical practices.

The tables on these two pages identify the Major Clusters emphasized by the Common Core Standards and assessments and those that are Supporting and Additional Clusters. In addition, the *Ready*® lessons that correspond to these clusters are also identified.

Use the tables on these pages to help inform instructional decisions regarding the amount of time spent on clusters of varying degrees of emphasis. If you are using *Ready*® as a supplement with another program, you may want to spend more time with the *Ready*® lessons connected to clusters with a major emphasis.

The table below indicates the clusters of Major Emphasis in the Common Core Standards.

Standard Clusters with Major Emphasis	Standards	*Ready*® Lesson(s)
Ratios and Proportional Relationships		
Analyze proportional relationships and use them to solve real-world and mathematical problems.	7.RP.A.1, 7.RP.A.2, 7.RP.A.3	9, 10, 11, 12, 13, 22
The Number System		
Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.	7.NS.A.1, 7.NS.A.2, 7.NS.A.3	1, 2, 3, 4, 5, 6, 7, 8
Expressions and Equations		
Use properties of operations to generate equivalent expressions.	7.EE.A.1, 7.EE.A.2	14, 15
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	7.EE.B.3, 7.EE.B.4	16, 17, 18

Supporting and Additional Areas of Emphasis

Although some clusters have greater emphasis in the Common Core Standards, this does not mean that standards within the clusters identified as Supporting or Additional can be neglected during instruction. Neglecting material will leave gaps in students' skills and understanding and may leave students unprepared for the challenges of a later grade. Standards for topics that are not major emphases are written in such a way as to support and strengthen the areas of major emphasis. This allows for valuable connections that add coherence to the grade.

In addition, the Supporting and Additional clusters provide students with understanding that is essential for success on the Common Core assessments, though they are not a major focus of the assessments. The Common Core assessments will mirror the emphasis developed by the Common Core and highlighted here. Major clusters will represent the majority of the questions on the Common Core assessments, but it is important to note that items identified as being Supporting or Additional will also be included.

The table below indicates the clusters with Supporting or Additional Emphasis in the Common Core Standards.

Standard Clusters with Supporting or Additional Emphasis	Standards	*Ready*® Lesson(s)
Geometry		
Draw, construct, and describe geometrical figures and describe the relationships between them.	7.G.A.1, 7.G.A.2, 7.G.A.3	19, 22, 25
Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	7.G.B.4, 7.G.B.5, 7.G.B.6	18, 20, 21, 23, 24
Statistics and Probability		
Use random sampling to draw inferences about a population.	7.SP.A.1, 7.SP.A.2	26, 27
Draw informal comparative inferences about two populations.	7.SP.B.3, 7.SP.B.4	28, 29
Investigate chance processes and develop, use, and evaluate probability models.	7.SP.C.5, 7.SP.C.6, 7.SP.C.7, 7.SP.C.8	30, 31, 32, 33

Additional Resources

For more information on Content Emphases, see these helpful resources.

http://www.corestandards.org/other-resources/key-shifts-in-mathematics/
www.parcconline.org/parcc-model-content-frameworks
www.smarterbalanced.org/wordpress/wp-content/uploads/2011/12/Math-Content-Specifications.pdf
engageny.org/resource/math-content-emphases/

Correlation Charts

Common Core State Standards Coverage by *Ready*® Instruction

The table below correlates each Common Core State Standard to the *Ready*® Common Core Instruction lesson(s) that offer(s) comprehensive instruction on that standard. Use this table to determine which lessons your students should complete based on their mastery of each standard.

Common Core State Standards for Grade 7 Mathematical Standards	Content Emphasis	*Ready*® Lesson(s)
Ratios and Proportional Relationships		
Analyze proportional relationships and use them to solve real-world and mathematical problems.		
7.RP.A.1 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 $\frac{1}{2}$ mile in each $\frac{1}{4}$ hour, compute the unit rate as the complex fraction $\frac{\frac{1}{2}}{\frac{1}{4}}$ miles per hour, equivalently 2 miles per hour.*	Major	9, 22
7.RP.A.2 Recognize and represent proportional relationships between quantities.	Major	10, 11
7.RP.A.2a 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.	Major	10
7.RP.A.2b Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	Major	10
7.RP.A.2c 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 $t = pn$.*	Major	11
7.RP.A.2d 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.	Major	11
7.RP.A.3 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.	Major	12, 13
The Number System		
Apply and extend previous understandings of operations with fractions.		
7.NS.A.1 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.	Major	1, 2, 3, 7
7.NS.A.1a Describe situations in which opposite quantities combine to make 0. *For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.*	Major	1, 7

Common Core State Standards for Grade 7 Mathematical Standards	Content Emphasis	*Ready*® Lesson(s)
The Number System *continued*		
Apply and extend previous understandings of operations with fractions. *continued*		
7.NS.A.1b 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.	Major	1, 7
7.NS.A.1c 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.	Major	2, 7
7.NS.A.1d Apply properties of operations as strategies to add and subtract rational numbers.	Major	3, 7
7.NS.A.2 Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	Major	4, 5, 6
7.NS.A.2a 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.	Major	4, 6
7.NS.A.2b 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 $-\left(\frac{p}{q}\right) = \frac{(2p)}{q} = \frac{p}{(2q)}$. Interpret quotients of rational numbers by describing real-world contexts.	Major	4, 6
7.NS.A.2c Apply properties of operations as strategies to multiply and divide rational numbers.	Major	4, 6
7.NS.A.2d 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.	Major	5
7.NS.A.3 Solve real-world and mathematical problems involving the four operations with rational numbers.	Major	8
Expressions and Equations		
Use properties of operations to generate equivalent expressions.		
7.EE.A.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	Major	14
7.EE.A.2 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."*	Major	15

Common Core State Standards Coverage by *Ready*® Instruction, *continued*

Common Core State Standards for Grade 7 Mathematical Standards	Content Emphasis	*Ready*® Lesson(s)
Expressions and Equations *continued*		
Solve real-life and mathematical problems using numerical and algebraic expressions and equations.		
7.EE.B.3 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. *For example: If a woman making $25 an hour gets a 10% raise, she will make an additional $\frac{1}{10}$ of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar $9\frac{3}{4}$ inches long in the center of a door that is $27\frac{1}{2}$ 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.*	Major	8, 16, 17
7.EE.B.4 Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	Major	16, 17
7.EE.B.4a 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?*	Major	16
7.EE.B.4b 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.*	Major	17
Geometry		
Draw, construct, and describe geometrical figures and describe the relationships between them.		
7.G.A.1 Solve problems involving scale drawings of geometric figures, such as computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Supporting/ Additional	22
7.G.A.2 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	Supporting/ Additional	19
7.G.A.3 Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	Supporting/ Additional	25

Common Core State Standards for Grade 7 Mathematical Standards	Content Emphasis	*Ready*® Lesson(s)
Geometry *continued*		
Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.		
7.G.B.4 Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	Supporting/ Additional	21
7.G.B.5 Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	Supporting/ Additional	18
7.G.B.6 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.	Supporting/ Additional	20, 23, 24
Statistics and Probability		
Use random sampling to draw inferences about a population.		
7.SP.A.1 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.	Supporting/ Additional	26
7.SP.A.2 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 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.*	Supporting/ Additional	27
Draw informal and comparative inferences about two populations.		
7.SP.B.3 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.*	Supporting/ Additional	28
7.SP.B.4 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 a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.*	Supporting/ Additional	29

Common Core State Standards Coverage by *Ready*® Instruction, *continued*

Common Core State Standards for Grade 7 Mathematical Standards	Content Emphasis	*Ready*® Lesson(s)
Statistics and Probability *continued*		
Investigate chance processes and develop, use, and evaluate probability models.		
7.SP.C.5 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 $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	Supporting/ Additional	30
7.SP.C.6 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.*	Supporting/ Additional	31
7.SP.C.7 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.*	Supporting/ Additional	32
7.SP.C.7a 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.*	Supporting/ Additional	32
7.SP.C.7b 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?*	Supporting/ Additional	32
7.SP.C.8 Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation.	Supporting/ Additional	33
7.SP.C.8a 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.	Supporting/ Additional	33
7.SP.C.8b Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. *For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.*	Supporting/ Additional	33
7.SP.C.8c Design and use a simulation to generate frequencies for compound events. *For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?*	Supporting/ Additional	33

Interim Assessment Correlations

Depth of Knowledge and Standards Coverage by *Ready*® Instruction

The table below show the depth-of-knowledge (DOK) level for the items in the Interim Assessments, as well as the standard(s) addressed, and the corresponding *Ready*® Instruction lesson(s) being assessed by each item. Use this information to adjust lesson plans and focus remediation.

Question	DOK[1]	Standard(s)	*Ready*® Lesson(s)
Unit 1: The Number System			
1	2	7.NS.A.2a	4, 6
2	1	7.NS.A.1a	1, 7
3	1	7.NS.A.1c	2, 7
4	2	7.NS.A.3	8
5	2	7.NS.A.1d	7
6	2	7.NS.A.1a, 7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d	1, 2, 3, 7
7	1	7.NS.A.2d	5
PT	3	7.NS.A.1b, 7.NS.A.1c, 7.NS.A.2c, 7.NS.A.3	1, 2, 6, 8
Unit 2: Ratios and Proportional Relationships			
1	2	7.RP.A.2c	11
2	1	7.RP.A.2d	11
3	2	7.RP.A.1	9
4	2	7.RP.A.3	12, 13
5	2	7.RP.A.2a, 7.RP.A.2b	10
6	2	7.RP.A.3	12, 13
PT	3	7.RP.A.3	12
Unit 3: Operations and Algebraic Thinking			
1	2	7.EE.B.3	16, 17
2	2	7.EE.B.4b	17
3	2	7.EE.B.4a	16
4	2	7.EE.A.2	15
5	2	7.EE.B.3	16, 17
6	2	7.EE.A.1	14
PT	3	7.EE.B.3, 7.EE.B.4b	17

[1]Depth of Knowledge levels:

1. The item requires superficial knowledge of the standard.
2. The item requires processing beyond recall and observation.
3. The item requires explanation, generalization, and connection to other ideas.

Interim Assessment Correlations, *continued*

Question	DOK[1]	Standard(s)	*Ready*® Lesson(s)
Unit 4: Geometry			
1	2	7.G.A.1	22
2	1	7.G.A.3	25
3	2	7.G.B.5	18
4	1	7.G.B.6	23
5	2	7.G.B.4, 7.G.B.6	20, 21
6	2	7.G.B.5	18
7	2	7.G.A.2	19
PT	3	7.G.B.6	20
Unit 5: Statistics and Probability			
1	2	7.SP.B.4	29
2	2	7.SP.C.7b	32
3	2	7.SP.C.8a, 7.SP.C.8b	33
4	2	7.SP.B.3	28
PT	3	7.SP.A.1, 7.SP.A.2	26, 27

[1]Depth of Knowledge levels:

1. The item requires superficial knowledge of the standard.
2. The item requires processing beyond recall and observation.
3. The item requires explanation, generalization, and connection to other ideas.

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