

Introduction to the PARCC Model Content Frameworks for Mathematics

Resource Materials

[The PARCC Model Content Frameworks for Mathematics](#) is a document produced by the Partnership for Assessment of Readiness for College and Careers (PARCC) with the intent of creating a link between the *Common Core State Standards* (CCSS) and the upcoming PARCC assessment. As such, it is an invaluable tool when districts are considering the implementation of the CCSS. In its current form, the Frameworks is particularly informative for teachers and curriculum writers for grades 3 through 8.¹ While it does not claim to be an exhaustive document, it offers useful examples of such things as opportunities to connect the Standards for Mathematical Content with the Standards for Mathematical Practice, key content advances from previous grades, and expected fluencies for a grade. Additionally, the document offers a breakdown of content clusters with respect to the instructional emphasis they should receive for a grade level. These three categories, Major, Supporting, and Additional, are also indicative of the amount of emphasis clusters will receive on the PARCC summative assessment.

RIDE has developed a summary of the essential content of the Frameworks for grades 3-8 into a table format. This resource is **not** meant to supplant the formal document which is rich in narrative and description, but to provide educators with a reference sheet for these grades. The intention of this document is to inspire educators to take a deeper dive into the Frameworks and use it to better inform design of curriculum, instruction, and assessment.

¹ To date, the [High School](#) section of the Frameworks is not as comprehensive in its guidance. It is expected that this portion of the Frameworks will offer increased guidance to high school educators. A release of the High School section is anticipated by August 2012.

Grade 7 Mathematics Content Emphasis by Cluster Chart

Based on analysis of the Common Core State Standards for Mathematics, the *PARCC Model Content Frameworks* has prioritized clusters of standards at each grade level. These categories, Major, Supporting, and Additional, are based on the depth of the ideas contained in the clusters and the time needed to master these ideas. This is not to say that any cluster can be ignored during instruction for this would produce gaps in student learning. Furthermore, all CCSS standards are eligible for inclusion on the PARCC summative assessment. Suggestions for how concepts in the Supporting Clusters can be linked to the Major Clusters are provided in the full Frameworks document.

Domain	Major Clusters	Supporting Clusters	Additional Clusters
<i>Ratios & Proportional Reasoning</i>	-Analyze proportional relationships and use them to solve real-world and mathematical problems		
<i>The Number System</i>	-Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers		
<i>Expressions & Equations</i>	-Use properties of operations to generate equivalent expressions - Solve real-life and mathematical problems using numerical and algebraic expressions and equations		
<i>Geometry</i>			-Draw, construct, and describe geometrical figures and describe the relationships between them - Solve real-life mathematical problems involving angle measure, area, surface area, and volume
<i>Statistics & Probability</i>		-Use random sampling to draw inferences about a population - Investigate chance processes and develop, use, and evaluate probability models	-Draw informal comparative inferences about two populations

Grade 7 PARCC Model Content Frameworks Summary Chart

Examples of Key Advances from Previous Grade	Fluency Expectations or Examples of Culminating Standards	Examples of Major Within-Grade Dependencies	Examples of Opportunities for Connections among Standards, Clusters, or Domains	Examples of Opportunities for In-Depth Focus	Examples of Opportunities for Connecting Mathematical Content and Mathematical Practices
Perform operations on rational numbers based on knowledge of positive and negative numbers	7.EE.3	Fully meeting (7.EE.3) relies on content from (7.NS.1-3) and (7.RP.3)	Proportional reasoning connects to scale drawings (7.G.1)	7.RP.2	Comparing algebraic solutions to arithmetic solutions for the same problem (7.EE.4a) connect to (MP.1)
Extend understanding of proportional relationships to include analysis (7.RP.1,2a,3) and (7.G.1)	7.EE.4	Concepts in (7.NS.1-3) underlie work with expressions and equations in (7.EE.1-4) (See full Frameworks for guidance on division of work)	Proportional reasoning and percents connect to probability (7.SP.6,8)	7.NS.3	Solving equations in the format $4 = 8(x - \frac{1}{2})$ connect to (MP.7)
Expand geometric problem solving (7.G.4-6)	7.NS.1-2	Fully meeting standard (7.EE.1-4) relies on two phases of content instruction (7.NS.1) and (7.NS.2)		7.EE.3	Work with constructing triangles connects (7.G.2) to (MP.3,5)
				7.EE.4	Proportional relationships connect to modeling (MP.4)
				7.G.6	