#### Field 012 Middle School Education: Mathematics

#### **Content Alignment Table**

The Content Alignment Study below provides information about the alignment of knowledge and skills described in the competencies that make up the test framework for this licensure test with the state and national standards designated by the Department of Elementary and Secondary Education for this field. The table indicates those portions of the relevant state and/or national standards that are addressed -- in whole or in part -- by each competency.

Test Competency	Missouri Department of Elementary and Secondary Education (Spring 2016)  K-5 Mathematics Grade-Level Expectations  Grade 5	Missouri Department of Elementary and Secondary Education (Spring 2016) 6-12 Mathematics Grade-Level Expectations Grades 6-12
Number and Operations	•	
0001 Understand numbers.	5.NBT.A.1, 2, 3, 4	6.EEI.A.2
	5.NF.A.1, 2, 3	8.NS.A.1, 2, 3, 5
	5.NF.B.1, 2, 3, 4, 5	A2.APR.A.3
0002 Understand operations.	5.NBT.A.1, 2, 3, 4	7.RP.A.1
	5.NF.A.1, 2, 3	7.NS.A.1, 2, 3
	5.NF.B.1, 2, 3, 4, 5	8.EEI.A.1; B.1
		A1.NQ.A.1, 2; B.3, 4
		A2.NQ.A.1, 2, 3, 5; B, 2, 3

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Test Competency	Missouri Department of Elementary and Secondary Education (Spring 2016)	Missouri Department of Elementary and Secondary Education (Spring 2016)
	K-5 Mathematics Grade-Level Expectations Grade 5	6-12 Mathematics Grade-Level Expectations Grades 6-12
Algebra and Functions		
0003 Understand patterns, relations, and functions.	5.RA.A.1, 2	6.EEI.A.1, 2; 6.EEI.C.1
	5.RA.B.1, 2	7.RP.A.2, 3
	5.GM.B.2	8.EEI.B.1
		8.F.A.1, 2, 3; B.1
		A1.IF.1, 2
		A1.BF.A.1
		A2.BF.A.3
0004 Understand algebraic techniques and	5.RA.B.1	6.EEI.A.1, 2, 3; 6.EEI.B.1, 2, 3, 4, 5
applications.		7.EEI.A.1, 2, 3; B.1, 2
		8.EEI.A.1, 2; B.2; C.1, 2
		8.F.A.3; B.1, 2
		A1.SSE.A.1, 2, 3
		A2.SSE.A.1, 2, 3, 4
		A1.APR.1, 2
		A2.APR.A.1, 2, 3, 4, 5

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	K-5 Mathematics Grade-Level Expectations Grade 5	6-12 Mathematics Grade-Level Expectations Grades 6-12
0005 Understand linear relations and applications.		6.EEI.B.5; 6.EEI.C.1
		8.EEI.B1, 2; C.1, 2
		8.DSP.A.3
		8.F.A.1, 2, 3; B.1, 2
		A2.SSE.A.1, 2
		A1.CED.A.1, 2, 3, 4
		A1.REI.B.1, 2; C.1, 2, 3
		A2.APR.A.1, 2, 4, 5
		A1.LQE.A.1, 2, 3
		A1.DS.A.6
0006 Understand nonlinear relations and		A1.SSE.A.1, 2
concepts of calculus.		A2.SSE.A.1, 2, 3, 4
		A1.REI.A.1, 2; B.2
		A2.REI.B.1
		A1.IF.B.1, 2, 3, 4; C.1, 2, 3, 4
		A2.BF.1, 2, 3
		A2.FM.A.1
		A1.LQE.A.1, 2, 3
		A1.LQE.B.1, 2, 3

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	K-5 Mathematics Grade-Level Expectations Grade 5	6-12 Mathematics Grade-Level Expectations Grades 6-12
Measurement and Geometry		
0007 Understand measurement principles, procedures, and applications.	5.GM.B.1, 2	6.GM.A.1, 2, 4
	5.GM.D.1, 2	7.GM.A.1, 2; B.2
		8.GM.A.1; B.3; C.1
		A1.NQ.B.1, 2, 3
		G.GMD.A.2
		G.MG.A.1, 2, 3
0008 Understand Euclidean geometry in two	5.GM.A.1, 2, 3	6.GM.A.1, 3, 4
and three dimensions.	5.GM.B.1	7.GM.A.2, 3, 4; B.1, 2
	5.GM.C.1, 2	8.GM.A.1, 3, 4, 5; B.1, 2
		G.CO.A.1, 4, 5; B.1, 2; C.1, 2, 3
		S.SRT.A.1, 2, 3; B.1; C.1, 2, 3, 4
		G.C.A.1, 2, 3; B.1, 2
		G.GPE.A, 1, 2, 3, 4
		G.GMB.B.1, 2
		G.MG.A.1, 2, 3

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Test Competency	Missouri Department of Elementary and Secondary Education (Spring 2016)  K-5 Mathematics Grade-Level Expectations Grade 5	Missouri Department of Elementary and Secondary Education (Spring 2016) 6-12 Mathematics Grade-Level Expectations Grades 6-12
0009 Understand coordinate and transformational geometry.	5.GM.C.1, 2	6.GM.A.3  8.GM.A.1, 2, 3, 4, 5; B.1, 2  G.CO.A.1, 2, 3, 4, 5; B.1.2;  G.SRT.A.1, 2, 3; B.1; C.1, 2, 3, 4  G.C.A.1, 2, 3; B.1, 2  G.GPE.A, 1, 2  G.GPE.B, 1, 2, 3, 4  G.GMD.A.1
Statistics and Probability		
0010 Understand principles and techniques of statistics.	5.DS.A.1, 2	6.DSP.A.2, 3; 6.DSP.B.1, 2 7.DSP.A.1, 2; B.1, 2 8.DSP.A.1, 2, 3, 4 A1.DS.A.1, 2, 3, 4, 5, 6, 7, 8 A2.DS.A.1, 2, 3, 4, 5, 7, 8, 9
0011 Understand principles of probability and techniques for determining probability.		7.DSP.C.1, 2, 3 A2.DS.6 G.CP.A.1, 2, 3, 4, 5, 6, 7, 8