



**State of Iowa
Dynamic Learning Maps (DLM)
Fall & Winter Assessment Windows
Math Individual Student Test Blueprint
2016-2017
Revised: October 3, 2016**

In this document, the term “blueprint” refers to the required tested Essential Elements (EEs) and coverage within each conceptual area of the DLM Alternate Assessment. **Each EE is tested one time only during the Fall and Winter Assessment Windows.** Teachers are required to use the State of Iowa Test Blueprints and maintain the test blueprint in the student’s cumulative folder.

The DLM Math Alternate Assessment includes three assessment windows-Fall, Winter, and Spring. **During the instructionally embedded Fall and Winter Assessments Windows, teachers are required to use the State of Iowa’s DLM Math Individual Student Test Blueprint document to identify EEs required at each grade level and record these EEs within DLM KITE Educator Portal Instructional Tools Interface (ITI) as instructional plans.** Teachers choose which EEs to instruct and assess during the Fall and Winter assessment windows.

During the Spring Assessment Window, teachers do not record EEs or create instructional plans in DLM KITE Educator Portal. The DLM System automatically delivers testlets which are a subset of EEs tested during the Fall and Winter Windows.

Tested EEs are organized according to the claims and conceptual areas (see table 1). The specific EE for each grade are listed in tables beginning on page 3. Teachers are required to teach and assess the required number of EEs during each assessment window (see table 2). Any student not assessed on the required EEs within each assessment window will be considered an exclusion unless granted exception by the Iowa Department of Education. IEP teams must request this exception from the Iowa Department of Education by contacting jennifer.denne@iowa.gov

Table 1.

Major Claim	Conceptual Area	
Number Sense: Students demonstrate increasingly complex understanding of number sense.	MC 1.1	Understand number structures (counting, place value, fraction)
	MC 1.2	Compare, compose, and decompose numbers and sets
	MC 1.3	Calculate accurately and efficiently using simple arithmetic operations
Geometry: Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	MC 2.1	Understand and use geometric properties of two- and three-dimensional shapes
	MC 2.2	Solve problems involving area, perimeter, and volume
Measurement Data and Analysis: Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	MC 3.1	Understand and use measurement principles and units of measure
	MC 3.2	Represent and interpret data displays
Algebraic and functional reasoning: Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	MC 4.1.	Use operations and models to solve problems
	MC 4.2	Understand patterns and functional thinking

Table 2.

Dynamic Learning Maps (DLM) Math Alternate Assessment Each is assessed one time only across the Fall and Winter Assessment Windows			
Grade	Fall Assessment Window 9/21/16-12/16/16	Winter Assessment Window 1/4/17-2/27/17	Spring Assessment Window 3/15/17-5/19/17
	Required Number of Testlets	Required Number of Testlets	Required Number of Testlets
3	4	4	5
4	5	5	5
5	4	5	5
6	4	4	5
7	4	5	5
8	4	5	5
9*	4	4	5
10	4	4	5
11	4	4	5

*Grade 9 is an optional year for DLM Assessment at no cost to the district. Please contact your District Alternate Assessment Coordinator to determine

Grade 3: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 4 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	3.NBT.2= 1 Testlet	Demonstrate understanding of place value to tens.					
			3 NBT.3= 1 Testlet	Count by tens using models such as objects, base ten blocks, or money.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	3.OA.4= 1 Testlet	Solve addition and subtraction problems when result is unknown, limited to operands and results within 20.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.2	Solve problems involving area, perimeter, and volume	3.G.2= 1 Testlet	Recognize that shapes can be partitioned into equal areas.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.1	Understand and use measurement principles and units of measure	3.MD.1= 1 Testlet	Tell time to the hour on a digital clock.					
			3.MD.4= 1 Testlet	Measure length of objects using standard tools, such as rulers, yardsticks, and meter sticks.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	3.OA.1-2= 1 Testlet	Use repeated addition to find the total number of objects and determine the sum.					
	M.C4.2	Understand patterns and functional thinking	3.OA.9= 1 Testlet	Identify arithmetic patterns.					

Grade 4: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 5 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 5 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	4.NF.1-2= 1 Testlet	Identify models of one half (1/2) and one fourth (1/4).					
			4.NF.3= 1 Testlet	Differentiate between whole and half.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	4.NBT.4= 1 Testlet	Add and subtract two-digit whole numbers.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	4.G.1= 1 Testlet	Recognize parallel lines and intersecting lines.					
	M.C2.2	Solve problems involving area, perimeter, and volume	4.MD.3= 1 Testlet	Determine the area of a square or rectangle by counting units of measure (unit squares).					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.1	Understand and use measurement principles and units of measure	4.MD.2a= 1 Testlet	Tell time using a digital clock. Tell time to the nearest hour using an analog clock.					
			4.MD.2d= 1 Testlet	Identify coins (penny, nickel, dime, quarter) and their values.					
	M.C3.2	Represent and interpret data displays	4.MD.4b= 1 Testlet	Interpret data from a picture or bar graph.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	4.OA.3= 1 Testlet	Solve one-step real-world problems using addition or subtraction within 100.					
	M.C4.2	Understand patterns and functional thinking	4.OA.5= 1 Testlet	Use repeating patterns to make predictions.					

Grade 5: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 5 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	5.NF.1= 1 Testlet	Identify models of halves (1/2, 2/2) and fourths (1/4, 2/4, 3/4, 4/4).					
	M.C1.2	Compare, compose, and decompose numbers and sets	5.NBT.1= 1 Testlet	Compare numbers up to 99 using base ten models.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	5.NBT.6-7= 1 Testlet	Illustrate the concept of division using fair and equal shares.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	5.G.1-4= 1 Testlet	Sort two-dimensional figures and identify the attributes (angles, number of sides, corners, color) they have in common.					
			5.MD.3= 1 Testlet	Identify common three-dimensional shapes.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.1	Understand and use measurement principles and units of measure	5.MD.1.a= 1 Testlet	Tell time using an analog or digital clock to the half or quarter hour.					
			5.MD.1.b= 1 Testlet	Use standard units to measure weight and length of objects.					
	M.C3.2	Represent and interpret data displays	5.MD.2= 1 Testlet	Represent and interpret data on a picture, line plot, or bar graph.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.2	Understand patterns and functional thinking	5.OA.3= 1 Testlet	Identify and extend numerical patterns.					

Grade 6: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 4 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	6.RP.1= 1 Testlet	Demonstrate a simple ratio relationship.					
	M.C1.2	Compare, compose, and decompose numbers and sets	6.NS.1= 1 Testlet	Compare the relationships between two unit fractions.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	6.NS.2= 1 Testlet	Apply the concept of fair share and equal shares to divide.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.2	Solve problems involving area, perimeter, and volume	6.G.1= 1 Testlet	Solve real-world and mathematical problems about area using unit squares.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles	M.C2.2	Solve problems involving area, perimeter, and volume	6.G.2= 1 Testlet	Solve real-world and mathematical problems about volume using unit cubes.					
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.2	Represent and interpret data displays	6.SP.5= 1 Testlet	Summarize data distributions shown in graphs or tables.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	6.EE.3= 1 Testlet	Apply the properties of addition to identify equivalent numerical expressions.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	6.EE.5-7= 1 Testlet	Match an equation to a real-world problem in which variables are used to represent numbers.					

Grade 7: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Claim	Conceptual Area		EE/ Testlet	DESCRIPTIO N Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 5 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	7.NS.2.c-d= 1 Testlet	Express a fraction with a denominator of 10 as a decimal.					
	M.C1.2	Compare, compose, and decompose numbers and sets	7.NS.3= 1 Testlet	Compare quantities represented as decimals in real world examples to tenths.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	7.NS.1= 1 Testlet	Add fractions with like denominators (halves, thirds, fourths, and tenths) with sums less than or equal to one.					
			7.NS.2.a	Solve multiplication problems with products to 100.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	7.G.1= 1 Testlet	Match two similar geometric shapes that are proportional in size and in the same orientation.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini- Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 11/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.2	Solve problems involving area, perimeter, and volume	7.G.4= 1 Testlet	Determine the perimeter of a rectangle by adding the measure of the sides.					
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures	M.C3.2	Represent and interpret data displays	7.SP.3= 1 Testlet	Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph.					
			7.SP.5-7= 1 Testlet	Describe the probability of events occurring as possible or impossible.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	7.EE.1= 1 Testlet	Use the properties of operations as strategies to demonstrate that expressions are equivalent.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 5 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.1	Understand number structures (counting, place value, fraction)	8.NS.2.a= 1 Testlet	Express a fraction with a denominator of 100 as a decimal.					
	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	8.NS.1= 1 Testlet	Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	8.G.2= 1 Testlet	Identify shapes that are congruent.					
	M.C2.2	Understand and use measurement principles and units of measure	8.G.9= 1 Testlet	Use the formulas for perimeter, area, and volume to solve real-world and mathematical problems (limited to perimeter and area of rectangles and volume of rectangular prisms).					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 11/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.2	Represent and interpret data displays	8.SP.4= 1 Testlet	Construct a graph or table from given categorical data and compare data categorized in the graph or table.					
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	8.EE.7= 1 Testlet	Solve algebraic equations with one variable using addition and subtraction.					
	M.C4.2	Understand patterns and functional thinking	8.EE.2= 1 Testlet	Identify a geometric sequence of whole numbers with a whole number common ratio.					
			8.F.1-3= 1 Testlet	Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).					
			8.F.4= 1 Testlet	Determine the values or rule of a function using a graph or a table.					

Claim	Conceptual Area		EE/ Testlet	Description	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 4 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	N-CN.2.a= 1 Testlet	Use the commutative, associative, and distributive properties to add, subtract, and multiply whole numbers.					
			N-CN.2.b= 1 Testlet	Solve real-world problems involving addition and subtraction of decimals, using models when needed.					
			N-CN.2.c= 1 Testlet	Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	G-CO.1= 1 Testlet	Know the attributes of perpendicular lines, parallel lines, and line segments; angles, and circles.					
			G-MG.1-3= 1 Testlet	Use properties of geometric shapes to describe real-life objects.					
	M.C2.2	Understand and use measurement principles and units of measure	G-GPE.7= 1 Testlet	Find perimeter and area of squares and rectangles to solve real-world problems.					

Claim	Conceptual Area		EE/ Testlet	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.1	Use operations and models to solve problems	A-SSE.1= 1 Testlet	Identify an algebraic expression involving one arithmetic operation to represent a real-world problem.					
			A-SSE.3= 1 Testlet	Solve simple algebraic equations with one variable using multiplication and division.					

Claim	Conceptual Area		EE/ Testlet	Description Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 4 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	S-CP.1-5= 1 Testlet	Identify when events are independent or dependent.					
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.1	Understand and use measurement principles and units of measure	N-Q.1-3= 1 Testlet	Express quantities to the appropriate precision of measurement.					
	M.C3.2	Represent and interpret data displays	S-ID.1-2= 1 Testlet	Given data, construct a simple graph (table, line, pie, bar, or picture) and interpret the data.					
			S-ID.4= 1 Testlet	Calculate the mean of a given data set (limit the number of data points to fewer than five).					

Claim	Conceptual Area		EE/Testlet	Description Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 11/4/17-2/27/17 Instructional Plan	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students solve complex mathematical problems, making productive use of algebra and functions	M.C4.1	Use operations and models to solve problems	A-CED.1= 1 Testlet	Create an equation involving one operation with one variable, and use it to solve real-world problems.					
			A-CED.2-4= 1 Testlet	Solve one-step equalities.					
	M.C4. 2	Understand patterns and functional thinking	A.REI.10-12= 1 Testlet	Interpret the meaning of a point on the graph of a line.					
			F.BF.1= 1 Testlet	Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change.					

Claim	Conceptual Area		EE/ Testlet	Description Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16 Choose 4 testlets from below		Winter Assessment Window 1/4/17-2/27/17 Choose 4 testlets from below	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students can demonstrate increasingly complex understanding of number sense.	M.C1.3	Calculate accurately and efficiently using simple arithmetic operations	N-RN.1= 1 Testlet	Determine the value of a quantity that is squared or cubed.					
			S-IC.1-2= 1 Testlet	Determine the likelihood of an event occurring when the outcomes are equally likely to occur.					
Students demonstrate increasingly complex spatial reasoning and understanding of geometric principles.	M.C2.1	Understand and use geometric properties of two-and three-dimensional shapes	G-CO.6-8= 1 Testlet	Identify corresponding congruent and similar parts of shapes.					
Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures.	M.C3.2	Understand and use measurement principles and units of measure	S-ID.3= 1 Testlet	Interpret general trends on a graph or chart.					

Claim	Conceptual Area		EE/ Testlet	Description Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/21/16-12/16/16		Winter Assessment Window 1/4/17-2/27/17	
						Date Instructional Plan Recorded in ITI	Date Tested	Date Instructional Plan Recorded in ITI	Date Tested
Students solve increasingly complex mathematical problems, making productive use of algebra and functions.	M.C4.2	Understand patterns and functional thinking	A-SSE.4= 1 Testlet	Determine the successive term in a geometric sequence given the common ratio.					
			F-BF.2= 1 Testlet	Determine an arithmetic sequence with whole numbers when provided a recursive rule.					
			F-IF.1-3= 1 Testlet	Use the concept of function to solve problems.					
			F-IF.4-6= 1 Testlet	Construct graphs that represent linear functions with different rates of change and interpret which is faster/lower, higher/lower, etc.					