State of Iowa
Dynamic Learning Maps (DLM)
Fall & Winter Assessment Windows
Math Individual Student Test Blueprint
2017-2018

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. **EEs with a * are the EEs that are required by the State of Iowa.** Other EEs may be selected as additional assessments.

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. Teachers are required to fill in the dates when testlets are given in the Spring Assessment Window.

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

Grade	Dynamic Learning Maps (DLM) Math Alternate Assessment Each is assessed one time only across the Fall and Winter Assessment Windows		
	Fall Assessment Window 9/20/17-12/15/17	Winter Assessment Window 1/3/18-2/27/18	Spring Assessment Window 3/12/18-5/18/18
	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: _____

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C2.2	*3.G.2	Recognize that shapes can be partitioned into equal areas.						
M.C3.1	*3.MD.1	Tell time to the hour on a digital clock.						
M.C3.2	3.MD.3	Use picture or bar graph to answer questions about data.						
M.C3.1	*3.MD.4	Measure length of objects using standard tools, such as rulers, yardsticks, and meter sticks.						
M.C1.1	*3.NBT.2	Demonstrate understanding of place value to tens.						
M.C1.1	*3 NBT.3	Count by tens using models such as objects, base ten blocks, or money.						
M.C1.1	3.NF.1-3	Differentiate a fractional part from a whole.						
M.C4.1	*3.OA.1-2	Use repeated addition to find the total number of objects and determine the sum.						
M.C1.3	*3.OA.4	Solve addition and subtraction problems when result is unknown, limited to operands and results within 20.						
M.C4.1	3.OA.8	Solve one-step real world problems using addition or subtraction within 20.						
M.C4.2	*3.OA.9	Identify arithmetic patterns.						

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

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C2.1	*4.G.1	Recognize parallel lines and intersecting lines.						
M.C3.1	*4.MD.2a	Tell time using a digital clock. Tell time to the nearest hour using an analog clock.						
M.C3.1	4.MD.2b	Measure mass or volume using standard tools.						
M.C3.1	*4.MD.2d	Identify coins (penny, nickel, dime, quarter) and their values.						
M.C.2.2	*4.MD.3	Determine the area of a square or rectangle by counting units of measure (unit squares).						
M.C3.2	*4.MD.4b	Interpret data from a picture or bar graph.						
M.C2.1	4.MD.5	Recognize angles in geometric shapes.						
M.C2.1	4.MD.6	Identify angles as larger and smaller.						
M.C1.2	4.NTB.2	Compare whole numbers to 10 using symbols (<,>,=)						
M.C1.2	4.NBT.3	Round any whole number 0-30 to the nearest ten.						
M.C1.3	*4.NBT.4	Add and subtract two- digit whole numbers.						

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C1.1	*4.NF.1-2	Identify models of one half (1/2) and one fourth (1/4).						
M.C1.1	*4.NF.3	Differentiate between whole and half.						
M.C4.1	4.OA.1-2	Demonstrate the connection between repeated addition and multiplication.						
M.C4.1	*4.OA.3	Solve one-step real-world problems using addition or subtraction within 100.						
M.C4.2	*4.OA.5	Use repeating patterns to make predictions.						

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

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C2.1	*5.G.1-4	Sort two-dimensional figures and identify the attributes (angles, number of sides, corners, color) they have in common.						
M.C3.1	*5.MD.1.a	Tell time using an analog or digital clock to the half or quarter hour.						
M.C3.1	*5.MD.1.b	Use standard units to measure weight and length of objects.						
M.C3.1	5.MD.1.c	Indicate relative value of collections of coins.						
M.C3.2	*5.MD.2	Represent and interpret data on a picture, line plot, or bar graph.						
M.C2.1	*5.MD.3	Identify common three- dimensional shapes.						
M.C2.2	5.MD.4-5	Determine the volume of a rectangular prism by counting units of measure (unit cubes).						
M.C1.2	*5.NBT.1	Compare numbers up to 99 using base ten models.						
M.C1.2	5.NBT.3	Compare whole numbers up to 100 using symbols (<, >, =).						
M.C1.2	5.NBT.4	Round two-digit whole numbers to the nearest 10 from 0—90.						
M.C1.3	5.NBT.5	Multiply whole numbers up to 5x5.						

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C1.3	*5.NBT.6-7	Illustrate the concept of division using fair and equal shares.						
M.C1.1	*5.NF.1	Identify models of halves (1/2, 2/2) and fourths (1/4, 2/4, 3/4, 4/4).						
M.C1.1	5.NF.2	Identify models of thirds (1/3, 2/3, 3/3) and tenths (1/10, 2/10, 3/10, 4/10, 5/10, 6/10, 7/10, 8/10, 9/10, 10/10).						
M.C4.2	*5.OA.3	Identify and extend numerical patterns.						

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

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C4.1	6.EE.1-2	Identify equivalent number sentences.						
M.C4.1	*6.EE.3	Apply the properties of addition to identify equivalent numerical expressions.						
M.C4.1	*6.EE.5-7	Match an equation to a real-world problem in which variables are used to represent numbers.						
M.C2.2	*6.G.1	Solve real-world and mathematical problems about area using unit squares.						
M.C2.2	*6.G.2	Solve real-world and mathematical problems about volume using unit cubes.						
M.C1.2	*6.NS.1	Compare the relationships between two unit fractions.						
M.C1.3	*6.NS.2	Apply the concept of fair share and equal shares to divide.						
M.C1.3	6.NS.3	Solve two-factor multiplication problems with products up to 50 using concrete objects and/or a calculator.						

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C1.2	6.NS.5-8	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero).						
M.C1.1	*6.RP.1	Demonstrate a simple ratio relationship.						
M.C3.2	*6.SP.5	Summarize data distributions shown in graphs or tables.						

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

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C4.1	*7.EE.1	Use the properties of operations as strategies to demonstrate that expressions are equivalent.						
M.C4.2	7.EE.2	Identify an arithmetic sequence of whole numbers with a whole number common difference.						
M.C2.1	*7.G.1	Match two similar geometric shapes that are proportional in size and in the same orientation.						
M.C2.1	7.G.2	Recognize geometric shapes with given conditions.						
M.C2.2	*7.G.4	Determine the perimeter of a rectangle by adding the measure of the sides.						
M.C2.1	7.G.5	Recognize angles that are acute, obtuse, and right.						
M.C1.3	*7.NS.1	Add fractions with like denominators (halves, thirds, fourths, and tenths) with sums less than or equal to one.						
M.C1.3	*7.NS.2.a	Solve multiplication problems with products to 100.						
M.C1.3	7.NS.2.b	Solve division problems with divisors up to five and also with a divisor of 10 without remainders						

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C1.1	*7.NS.2.c-d	Express a fraction with a denominator of 10 as a decimal.						
M.C1.2	*7.NS.3	Compare quantities represented as decimals in real world examples to tenths.						
M.C1.1	7.RP.1-3	Use a ratio to model or describe a relationship.						
M.C3.2	*7.SP.3	Compare two sets of data within a single data display such as a picture graph, line plot, or bar graph.						
M.C3.2	*7.SP.5-7	Describe the probability of events occurring as possible or impossible.						

Grade 8: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C1.3	8.EE.1	Identify the meaning of an exponent (limited to exponents of 2 and 3).						
M.C4.2	*8.EE.2	Identify a geometric sequence of whole numbers with a whole number common ratio.						
M.C4.1	*8.EE.7	Solve algebraic equations with one variable using addition and subtraction.						
M.C4.2	*8.F.1-3	Given a function table containing at least 2 complete ordered pairs, identify a missing number that completes another ordered pair (limited to linear functions).						
M.C4.2	*8.F.4	Determine the values or rule of a function using a graph or a table.						
M.C2.1	8.G.1	Recognize translations, rotations, and reflections of shapes.						
M.C2.1	*8.G.2	Identify shapes that are congruent.						
M.C2.1	8.G.4	Identify similar shapes with and without rotation.						
M.C2.1	8.G.5	Compare any angle to a right angle and describe the angle as greater than, less than, or congruent to a right angle.						

Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
				Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
M.C2.2	*8.G.9	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).						
M.C1.3	*8.NS.1	Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one.						
M.C1.1	*8.NS.2.a	Express a fraction with a denominator of 100 as a decimal.						
M.C1.2	8.NS.2.b	Compare quantities represented as decimals in real-world examples to hundredths.						
M.C3.2	*8.SP.4	Construct a graph or table from given categorical data and compare data categorized in the graph or table.						

High School: Math Essential Elements Test Blueprint and Record of Assessed Essential Elements: Student Name: _____

Grade	Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
					Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
10	M.C4.1	*A-CED.1	Create an equation involving one operation with one variable, and use it to solve real-world problems.						
10	M.C4.1	*A-CED.2-4	Solve one-step equalities.						
10	M.C4.2	*A-REI.10-12	Interpret the meaning of a point on the graph of a line.						
9	M.C4.1	*A-SSE.1	Identify an algebraic expression involving one arithmetic operation to represent a real-world problem.						
9	M.C4.1	*A-SSE.3	Solve simple algebraic equations with one variable using multiplication and division.						
11	M.C4.2	*A-SSE.4	Determine the successive term in a geometric sequence given the common ratio.						
10	M.C4.2	*F.BF.1	Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change.						
11	M.C4.2	*F-BF.2	Determine an arithmetic sequence with whole numbers when provided a recursive rule.						

Grade	Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15	Winter Assessment Window 1/3-2/27	Spring Assessment Window 3/12-5/18		
					Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
11	M.C4.2	*F.IF.1-3	Use the concept of function to solve problems.						
11	M.C4.2	*F-IF.4-6	Construct graphs that represent linear functions with different rates of change and interpret which is faster/lower, higher/lower, etc.						
11	M.C4.2	F-LE.1-3	Model a simple linear function such as y=mx to show that these functions increase by equal amounts over equal intervals.						
9	M.C2.1	*G-CO.1	Know the attributes of perpendicular lines, parallel lines, and line segments; angles, and circles.						
10	M.C2.1	G-CO.4-5	Given a geometric figure and a rotation, reflection, or translation of that figure, identify the components of the two figures that are congruent.						
11	M.C2.1	*G-CO.6-8	Identify corresponding congruent and similar parts of shapes.						
9	M.C2.1	*G-MG.1-3	Use properties of geometric shapes to describe real-life objects.						
9	M.C2.2	*G-GPE.7	Find perimeter and area of squares and rectangles to solve real-world problems.						

Grade	Conceptual Area	EE/Testlet (Reminder that the * EEs/Testlets are REQUIRED)	DESCRIPTION Click on description to access the EE & Mini-Map	Node Linkage Level	Fall Assessment Window 9/20-12/15		Winter Assessment Window 1/3-2/27		Spring Assessment Window 3/12-5/18
					Date in ITI	Date Assessed	Date in ITI	Date Assessed	Date Assessed
9	M.C1.3	*N-CN.2.a	Use the commutative, associative, and distributive properties to add, subtract, and multiply whole numbers.						
9	M.C1.3	*N-CN.2.b	Solve real-world problems involving addition and subtraction of decimals, using models when needed.						
9	M.C1.3	*N-CN.2.c	Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed.						
10	M.C3.1	*N-Q.1-3	Express quantities to the appropriate precision of measurement.						
11	M.C1.3	*N-RN.1	Determine the value of a quantity that is squared or cubed.						
10	M.C1.3	*S-CP.1-5	Identify when events are independent or dependent.						
11	M.C1.3	*S-IC.1-2	Determine the likelihood of an event occurring when the outcomes are equally likely to occur.						
10	M.C3.2	*S-ID.1-2	Given data, construct a simple graph (table, line, pie, bar, or picture) and interpret the data.						
11	M.C3.2	*S-ID.3	Interpret general trends on a graph or chart.						
10	M.C3.2	*S-ID.4	Calculate the mean of a given data set (limit the number of data points to fewer than five).						