



Math Integrated Blueprint for Delaware DCPS

In this document, the “blueprint” refers to the pool of available Essential Elements (EEs). A general description of the content covered is provided for each grade. Educators should select a minimum of one grade level testlet to administer in the fall window.

The specific EEs available in each grade are listed in tables beginning on the next page. EEs are organized according to conceptual area.

NOTE: Grades 9 and 10 are grayed out (pp. 8 and 9), since these grades are not assessed for mathematics at the end of the year.

Major Claims and Conceptual Areas in Mathematics

| Major Claim | Conceptual Area | |
|---|-----------------|--|
| 1. Students demonstrate increasingly complex understanding of number sense. | M.C1.1 | Understand number structures (counting, place value, fraction) |
| | M.C1.2 | Compare, compose, and decompose numbers and sets |
| | M.C1.3 | Calculate accurately and efficiently using simple arithmetic operations |
| 2. 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 |
| | M.C2.2 | Solve problems involving area, perimeter, and volume |
| 3. Students demonstrate increasingly complex understanding of measurement, data, and analytic procedures. | M.C3.1 | Understand and use measurement principles and units of measure |
| | M.C3.2 | Represent and interpret data displays |
| 4. Students solve increasingly complex mathematical problems, making productive use of algebra and functions. | M.C4.1 | Use operations and models to solve problems |
| | M.C4.2 | Understand patterns and functional thinking |

Grade 3: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|----------|-----------------|---------|--|
| 1 | M.C1.1 | 3.NBT.2 | Demonstrate understanding of place value to tens. |
| | | 3.NBT.3 | Count by tens using models such as objects, base ten blocks, or money. |
| | M.C1.3 | 3.OA.4 | Solve addition and subtraction problems when result is unknown, limited to operands and results within 20. |
| 2 | M.C2.2 | 3.G.2 | Recognize that shapes can be partitioned into equal areas. |
| | | | |
| 3 | M.C3.1 | 3.MD.1 | Tell time to the hour on a digital clock. |
| | | | |
| 4 | M.C4.2 | 3.OA.9 | Identify arithmetic patterns. |
| | | | |

Grade 4: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|-------|---|----------|---|
| 1 | | 4.NF.3 | Differentiate between whole and half. |
| | M.C1.2 | 4.NBT.2 | Compare whole numbers to 10 using symbols (<, >, =). |
| 2 | No tested Essential Elements in this Claim for DCPS | | |
| 3 | M.C3.1 | 4.MD.2.a | Tell time using a digital clock. Tell time to the nearest hour using an analog clock. |
| | | 4.MD.2.d | Identify coins (penny, nickel, dime, quarter) and their values. |
| 4 | M.C4.2 | 4.OA.5 | Use repeating patterns to make predictions. |

Grade 5: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|-------|-----------------|----------|--|
| 1 | | 5.NF.2 | Identify models of thirds ($\frac{1}{3}$, $\frac{2}{3}$, $\frac{3}{3}$) and tenths ($\frac{1}{10}$, $\frac{2}{10}$, $\frac{3}{10}$, $\frac{4}{10}$, $\frac{5}{10}$, $\frac{6}{10}$, $\frac{7}{10}$, $\frac{8}{10}$, $\frac{9}{10}$, $\frac{10}{10}$). |
| | | 5.NBT.3 | Compare whole numbers up to 100 using symbols ($<$, $>$, $=$). |
| 2 | | 5.MD.3 | Identify common three-dimensional shapes. |
| | | | |
| 3 | M.C3.1 | 5.MD.1.a | Tell time using an analog or digital clock to the half or quarter hour. |
| | | | |
| 4 | M.C4.2 | 5.OA.3 | Identify and extend numerical patterns. |
| | | | |

Grade 6: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|----------|---|----------|--|
| 1 | M.C1.1 | 6.RP.1 | Demonstrate a simple ratio relationship. |
| | M.C1.2 | 6.NS.1 | Compare the relationships between two unit fractions. |
| 2 | M.C2.2 | 6.G.1 | Solve real-world and mathematical problems about area using unit squares. |
| | No Essential Elements assessed in Claim 3 for DCPS | | |
| 4 | M.C4.1 | 6.EE.1-2 | Identify equivalent number sentences. |
| | | 6.EE.3 | Apply the properties of addition to identify equivalent numerical expressions. |

Grade 7: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|----------|---|------------|---|
| 1 | M.C1.1 | 7.NS.2.c-d | Express a fraction with a denominator of 10 as a decimal. |
| | | 7.RP.1-3 | Use a ratio to model or describe a relationship. |
| | M.C1.3 | 7.NS.1 | 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 |
| 2 | M.C2.2 | 7.G.4 | Determine the perimeter of a rectangle by adding the measures of the sides. |
| 3 | No Essential Elements assessed in Claim 3 for DCPS | | |
| 4 | M.C4.2 | 7.EE.2 | Identify an arithmetic sequence of whole numbers with a whole number common difference. |

Grade 8: Available Essential Elements

| Claim | Conceptual Area | EE | Description |
|-------|--|----------|---|
| 1 | M.C1.1 | 8.NS.2.a | Express a fraction with a denominator of 100 as a decimal. |
| | | 8.NS.1 | Subtract fractions with like denominators (halves, thirds, fourths, and tenths) with minuends less than or equal to one. |
| 2 | | 8.G.2 | Identify shapes that are congruent. |
| | | 8.G.4 | Identify similar shapes with and without rotation. |
| 3 | No Essential Elements assessed in Claim 3 for DCPS | | |
| 4 | M.C4.1 | 8.EE.7 | Solve simple algebraic equations with one variable using addition and subtraction. |
| | | 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). |

High School: Available Essential Elements

| Claim | Conceptual Area | EE | Description | Available Math 9 | Available Math 10 | Available Math 11 |
|----------|-----------------|----------|---|------------------|-------------------|-------------------|
| 1 | M.C1.3 | N-CN.2.a | Use the commutative, associative, and distributive properties to add, subtract, and multiply whole numbers. | ● | | |
| | | N-CN.2.b | Solve real-world problems involving addition and subtraction of decimals, using models when needed. | ● | | |
| 2 | M.C2.1 | | | | | |
| | | G-MG.1-3 | Use properties of geometric shapes to describe real-life objects. | ● | | |
| | M.C2.2 | G-GPE.7 | Find perimeter and area of squares and rectangles to solve real-world problems. | ● | | |
| 3 | M.C3.2 | | | | | |
| | | S-ID.3 | Interpret general trends on a graph or chart. | | | ● |
| 4 | M.C4.1 | A-CED.1 | Create an equation involving one operation with one variable, and use it to solve a real-world problem. | | ● | |
| | | A-SSE.3 | Solve simple algebraic equations with one variable using multiplication and division. | ● | | |
| | | F-BF.2 | Determine an arithmetic sequence with whole numbers when provided a recursive rule. | | | ● |