This document shows where students and teachers should spend the large majority of their time in order to meet the expectations of the Standards.

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice.

To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade.

Students should spend the large majority\(^1\) of their time on the major work of the grade ( □ ). Supporting work ( □ ) and, where appropriate, additional work ( ○ ) can engage students in the major work of the grade.\(^2\), \(^3\)

### MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR KINDERGARTEN

Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

**Key:** □ Major Clusters

- K.CC.A Know number names and the count sequence.
- K.CC.B Count to tell the number of objects.
- K.CC.C Compare numbers.
- K.OA.A Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.
- K.NBT.A Work with numbers 11–19 to gain foundations for place value.
- K.MD.A Describe and compare measurable attributes.
- K.MD.B Classify objects and count the number of objects in categories.
- K.G.A Identify and describe shapes.
- K.G.B Analyze, compare, create, and compose shapes.

**Supporting Clusters**

- K.CC.B
- K.CC.C
- K.OA.A
- K.NBT.A
- K.MD.A
- K.MD.B
- K.G.A
- K.G.B

**Additional Clusters**

- K.CC.A
- K.OA.A

### HIGHLIGHTS OF MAJOR WORK IN GRADES K–8

**K–2**

- Addition and subtraction – concepts, skills, and problem solving; place value

**3–5**

- Multiplication and division of whole numbers and fractions – concepts, skills, and problem solving

**6**

- Ratios and proportional relationships; early expressions and equations

**7**

- Ratios and proportional relationships; arithmetic of rational numbers

**8**

- Linear equations and linear functions

### REQUIRED FLUENCIES FOR KINDERGARTEN

- K.OA.A.5 Add/subtract within 5

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\(^1\) At least 65% and up to approximately 85% of class time, with Grades K–2 nearer the upper end of that range, should be devoted to the major work of the grade. For more information, see Criterion #1 of the K–8 Publishers’ Criteria for the Common Core State Standards for Mathematics www.achievethecore.org/publisherscriteria.

\(^2\) Refer also to criterion #3 in the K–8 Publishers’ Criteria for the Common Core State Standards for Mathematics www.achievethecore.org/publisherscriteria.

\(^3\) Note, the critical areas are a survey of what will be taught at each grade level; the major work is the subset of topics that deserve the large majority of instructional time during a given year to best prepare students for college and careers.
An important subset of the major work in grades K–8 is the progression that leads toward middle school algebra.

<table>
<thead>
<tr>
<th>K</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know number names and the count sequence</td>
<td>Represent and solve problems involving addition and subtraction</td>
<td>Represent and solve problems involving addition and subtraction</td>
<td>Represent &amp; solve problems involving multiplication and division</td>
<td>Use the four operations with whole numbers to solve problems</td>
<td>Understand the place value system</td>
<td>Apply and extend previous understandings of multiplication and division to divide fractions by fractions</td>
<td>Apply and extend previous understanding of operations with fractions to add, subtract, multiply, and divide rational numbers</td>
<td>Work with radical and integer exponents</td>
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<tr>
<td>Count to tell the number of objects</td>
<td>Understand and apply properties of operations and the relationship between addition and subtraction</td>
<td>Add and subtract within 20</td>
<td>Understand properties of multiplication and the relationship between multiplication and division</td>
<td>Generalize place value understanding for multi-digit whole numbers</td>
<td>Use equivalent fractions as a strategy to add and subtract fractions</td>
<td>Apply and extend previous understandings of numbers to the system of rational numbers</td>
<td>Understand the connections between proportional relationships, lines, and linear equations**</td>
<td></td>
</tr>
<tr>
<td>Compare numbers</td>
<td>Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from</td>
<td>Use place value understanding and properties of operations to add and subtract</td>
<td>Use place value understanding for multi-digit whole numbers</td>
<td>Use place value understanding of operations to perform multidigit arithmetic</td>
<td>Use equivalent fractions as a strategy to add and subtract fractions</td>
<td>Apply and extend previous understandings of numbers to the system of rational numbers</td>
<td>Analyze proportional relationships and use them to solve real-world and mathematical problems</td>
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<tr>
<td>Understand addition and subtraction equations</td>
<td>Work with addition and subtraction equations</td>
<td>Measure and estimate lengths in standard units</td>
<td>Solve problems involving the four operations, and identify &amp; explain patterns in arithmetic</td>
<td>Multiply &amp; divide within 100</td>
<td>Solve problems involving the four operations, and identify &amp; explain patterns in arithmetic</td>
<td>Underst and extend previous understandings of operations to perform multidigit arithmetic</td>
<td>Analyze and solve linear equations and pairs of simultaneous linear equations*</td>
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</tr>
<tr>
<td>Work with numbers 11-19 to gain foundations for place value</td>
<td>Extend the counting sequence</td>
<td>Relate addition and subtraction to length</td>
<td>Develop understanding of fractions as numbers</td>
<td>Solve problems involving multiplication and estimation of intervals of time, liquid volumes, &amp; masses of objects</td>
<td>Extend understanding of fraction equivalence and ordering</td>
<td>Understand ratio concepts and use ratio reasoning to solve problems</td>
<td>Define, evaluate, and compare functions</td>
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</tr>
<tr>
<td>Understand place value</td>
<td>Use place value understanding and properties of operations to add and subtract</td>
<td>Use place value understanding of operations to perform multidigit arithmetic</td>
<td>Solve problems involving the four operations, and identify &amp; explain patterns in arithmetic</td>
<td>Build fractions from unit fractions by applying and extending previous understandings of operations</td>
<td>Build fractions from unit fractions by applying and extending previous understandings of operations</td>
<td>Solve real-life and mathematical problems using numerical and algebraic expressions and equations</td>
<td>Use functions to model relationships between quantities</td>
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</tr>
<tr>
<td>Use place value understanding and properties of operations to add and subtract</td>
<td>Measure lengths indirectly and by iterating length units</td>
<td>Develop understanding of fractions as numbers</td>
<td>Solve problems involving measurement and estimation of intervals of time, liquid volumes, &amp; masses of objects</td>
<td>Understand decimal notation for fractions, and compare decimal fractions</td>
<td>Understand decimal notation for fractions, and compare decimal fractions</td>
<td>Reason about and solve one-variable equations and inequalities</td>
<td>Represent and analyze quantitative relationships between dependent and independent variables</td>
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</tbody>
</table>

* Indicates a cluster that is well thought of as a part of a student’s progress to algebra, but that is currently not designated as major by the assessment consortia in their draft materials. Apart from the one asterisked exception, the clusters listed here are a subset of those designated as major in the assessment consortia’s draft documents.

** Depends on similarity ideas from geometry to show that slope can be defined and then used to show that a linear equation has a graph which is a straight line and conversely.