## WNCP-Based Curricula

Matching WNCP content outcomes to the Common Core State Standards for Mathematics (CCSSM)

### Elementary • Grades K–3

<table>
<thead>
<tr>
<th>Grade</th>
<th>Number</th>
<th>Patterns and Relations</th>
<th>Shape and Space</th>
<th>Statistics and Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>K: K.CC</td>
<td>• backwards counting (explicitly) • subitizing</td>
<td>• repeating patterns</td>
<td>• sorting shapes (explicitly)</td>
</tr>
<tr>
<td><strong>Not covered in the CCSSM</strong></td>
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<td><strong>Not covered in the CCSSM</strong></td>
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<tr>
<td>2</td>
<td>Grade 1: 1.OA Grade 1: 1.NBT Grade 2: 2.OA Grade 2: 2.NBT</td>
<td>Grade 1: 1.OA Grade 4: 4.OA</td>
<td>K: K.G Grade 1: 1.MD Grade 2: 2.0A</td>
<td>Grade 2: 2.MD</td>
</tr>
<tr>
<td><strong>Not covered in the CCSSM</strong></td>
<td>• ordinal numbers • estimating quantities (explicitly)</td>
<td>• work with repeating patterns • growing patterns until grade 4 where the focus is on applying a rule rather than describing, reproducing, extending, and creating • use of the ≠ symbol</td>
<td>• calendar work • measuring distance around objects • measuring weight using non-standard units • focus on the fact that changing orientation does not change measurements (explicitly) • sorting shapes (explicitly) • observing 2-D shapes as parts of 3-D objects (explicitly)</td>
<td>• collecting data about self and others • concrete graphs</td>
</tr>
</tbody>
</table>

*Note: There is no significant emphasis on personal strategies in the CCSSM. Skip counting goes to 1,000 rather than 100 in the CCSSM.*
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<th>Number</th>
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</thead>
</table>
| 3     | CCSSM Domain | Grade 1: 1.OA  
Grade 2: 2.OA  
Grade 2: 2.NBT  
Grade 3: 3.OA  
Grade 3: 3.NBT  
Grade 3: 3.NF | Grade 1: 1.OA  
Grade 4: 4.OA | K: K.G  
Grade 2: 2.MD  
Grade 3: 3.MD | Grade 2: 2.MD  
Grade 3: 3.MD |

### Not covered in the CCSSM

- skip counting by 3s, 4s, or 25s
- estimating quantities (explicitly)
- estimating rather than just rounding
- use of materials to model place value (explicitly)

Note: The emphasis in the CCSSM is on fractions on a number line rather than just as part of a whole.

- development of time or mass benchmarks
- time relationships (e.g., hours in a day)
- calendar work
- referents for standard units (explicitly)
- sorting of shapes (explicitly)
- collecting data
- tallying
- using charts or lists
- comparing line plots
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</table>
| 4     | CCSSM Domain | Grade 3: 3.OA  
Grade 3: 3.NF  
Grade 4: 4.OA  
Grade 4: 4.NBT  
Grade 4: 4.NF  
Grade 5: 5.NBT | Grade 3: 3.OA  
Grade 4: 4.OA | Grade 3: 3.MD  
Grade 4: 4.G | Grade 3: 3.MD |
| 5     | CCSSM Domain | Grade 3: 3.OA  
Grade 3: 3.NF  
Grade 4: 4.OA  
Grade 4: 4.NBT  
Grade 4: 4.NF  
Grade 5: 5.NBT | Grade 4: 4.OA | Grade 3: 3.MD  
Grade 3: 3.G  
Grade 4: 4.G  
Grade 5: 5.MD  
Grade 5: 5.G  
Grade 8: 8.G | Grade 7: 7.SP |
| 6     | CCSSM Domain | Grade 4: 4.OA  
Grade 4: 4.NF  
Grade 5: 5.OA  
Grade 5: 5.NBT  
Grade 6: 6.RP  
Grade 6: 6.NS | Grade 6: 6.EE  
Grade 7: 7.RP | Grade 3: 3.MD  
Grade 4: 4.MD  
Grade 5: 5.MD  
Grade 5: 5.G  
Grade 8: 8.G  
High School: G-CO | Grade 7: 7.SP |

**Not covered in the CCSSM**

- Note: There is more focus on standard algorithms in the CCSSM than is expected in this curriculum.
- • reproducing a pattern with concrete materials
- • 24-hour clock
- • calendar dates
- • distinguishing among prisms (explicitly)
- • using a variety of estimation strategies
- • determining a pattern rule
- • work with millimetres
- • attention to horizontal or vertical orientation
- • distinguishing between first-hand and second-hand data
- • creating double bar graphs
- • numbers greater than one million or less than one thousandth (explicitly)
- • preservation of equality (explicitly)
- Note: Congruence is treated using transformations in the CCSSM and not until grade 8.
- • line graphs
- • data collection
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</thead>
</table>
| 7     | Grade 4: 4.NF  
       Grade 5: 5.NBT  
       Grade 6: 6.RP  
       Grade 7: 7.NS | Grade 6: 6.EE  
       Grade 7: 7.RP  
       Grade 7: 7.EE | Grade 6: 6.NS  
       Grade 6: 6.G  
       Grade 7: 7.G  
       Grade 8: 8.G  
       High School: G-CO | Grade 6: 6.SP  
       Grade 7: 7.SP |
|       | **Not covered in the CCSSM**  
       • divisibility tests  
       • relationship between repeating decimals and fractions | | **Not covered in the CCSSM**  
       • preservation of equality (explicitly) | **Not covered in the CCSSM**  
       • circle graphs  
       • concept of mode |
| 8     | Grade 5: 5.NF  
       Grade 6: 6.RP  
       Grade 6: 6.NS  
       Grade 7: 7.NS  
       Grade 8: 8.EE | Grade 6: 6.EE  
       Grade 7: 7.RP  
       Grade 7: 7.EE | Grade 8: 8.G | Grade 7: 7.SP |
|       | **Not covered in the CCSSM**  
       • preservation of equality concretely and pictorially (explicitly) | | **Not covered in the CCSSM**  
       • views of 3-D shapes  
       • creating tessellations | **Not covered in the CCSSM**  
       • critiquing graphical presentation of data |
| 9     | Grade 6: 6.NS  
       Grade 6: 6.EE  
       Grade 8: 8.EE | Grade 7: 7.RP  
       Grade 7: 7.EE  
       High School: A-APR  
       High School: A-REI | Grade 7: 7.G  
       Grade 8: 8.G  
       High School: G-CO  
       High School: G-C | Grade 7: 7.SP |
|       | **Not covered in the CCSSM**  
       • interpolation or extrapolation (explicitly) | | | **Not covered in the CCSSM**  
       • consideration of how a sample might be biased  
       • data project  
       • role of probability in society |
## Matching WNCP content outcomes to the Common Core State Standards for Mathematics (CCSSM)

### High School • Grades 10–12

<table>
<thead>
<tr>
<th>Grade</th>
<th>Measurement</th>
<th>Geometry</th>
<th>Number</th>
<th>Algebra</th>
</tr>
</thead>
</table>
| 10 Apprentice & Workplace | **Grade 6**: 6.RP  
**Grade 7**: 7.G | **Grade 8**: 8.G  
**High School**: G-CO  
**High School**: G-SRT | | **Grade 6**: 6.RP |
| | | | | **Grade 8**: 8.G  
**High School**: G-SRT |
| **Not covered in the CCSSM** | • learning the SI system  
• history of the Imperial system | • puzzles or strategy games  
• parallelism or perpendicularity of planes | • currency exchange  
• issues related to income | • equations involving income |

<table>
<thead>
<tr>
<th>Grade</th>
<th>Measurement</th>
<th>Algebra and Number</th>
<th>Relations and Functions</th>
</tr>
</thead>
</table>
| 10 Foundations of Mathematics and Pre-Calculus | **Grade 7**: 7.RP  
**Grade 8**: 8.G  
**High School**: G-SRT | **Grade 6**: 6.NS  
**Grade 8**: 8.NS  
**Grade 8**: 8.EE  
**High School**: N-RN  
**High School**: A-SSE  
**High School**: A-APR | **Grade 7**: 7.RP  
**Grade 8**: 8.EE  
**Grade 8**: 8.F  
**Grade 8**: 8.SP  
**High School**: A-REI  
**High School**: F-IF  
**High School**: G-GPE  
**High School**: S-ID |
| | | | | **Not covered in the CCSSM** |
| | • comparison of different measurement systems  
• establishment of benchmarks for units  
• use of specific measurement tools or strategies  
• surface area of spheres, cones, or cylinders | | • distinction between functions and relations  
• changing the algebraic form of a linear relation |

<table>
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<tr>
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<th>Measurement</th>
<th>Geometry</th>
<th>Number</th>
<th>Algebra</th>
<th>Statistics</th>
</tr>
</thead>
</table>
| 11 Apprentice & Workplace | **Grade 7**: 7.G  
**Grade 8**: 8.G | **Grade 7**: 7.G  
**Grade 8**: 8.G  
**High School**: G-GMD | | | **Grade 6**: 6.SP |
| | | | | | **Not covered in the CCSSM** |
| | • surface area of spheres  
• distinguishing between volume and capacity model | • creation of a 3-D scale model  
• perspective  
• isometric, orthographic, or exploded views | | • financial formulas  
• circle or line graphs |

Matching WNCP content outcomes to the Common Core State Standards for Mathematics (CCSSM):
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#### High School • Grades 10–12

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<thead>
<tr>
<th>Grade</th>
<th>Measurement</th>
<th>Geometry</th>
<th>Logical Reasoning</th>
<th>Statistics</th>
<th>Relations and Functions</th>
<th>Research Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td></td>
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<tr>
<td><strong>Not covered in the CCSSM</strong></td>
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<tr>
<td>• exploration of effect on area and volume of a scale factor (explicitly)</td>
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<td>• systems of linear inequalities</td>
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<table>
<thead>
<tr>
<th>Grade</th>
<th>Algebra and Number</th>
<th>Trigonometry</th>
<th>Relations and Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
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<tr>
<td><strong>Not covered in the CCSSM</strong></td>
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<td>Note: Reciprocal functions are not specifically addressed in the CCSSM, but might be inferred from standards about creating new functions from given ones.</td>
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</tbody>
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<tr>
<th>Grade</th>
<th>Measurement</th>
<th>Geometry</th>
<th>Number</th>
<th>Algebra</th>
<th>Statistics</th>
<th>Probability</th>
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<tbody>
<tr>
<td>12</td>
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<tr>
<td><strong>Apprenticeship &amp; Workplace</strong></td>
<td>Not covered in the CCSSM High School: G-CO High School: G-SRT</td>
<td>Not covered in the CCSSM Grade 7: 7.RP Grade 7: 7.EE Grade 8: 8.EE Grade 8: 8.F Grade 8: 8.SF</td>
<td>Grade 6: 6.SP Grade 7: 7.SP</td>
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<tr>
<td><strong>Not covered in the CCSSM</strong></td>
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<tr>
<td>• weighted or trimmed mean</td>
<td>• concept of odds</td>
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<tr>
<td>• concept of mode</td>
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<tr>
<td>• percentiles (explicitly)</td>
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<tr>
<td>Grade</td>
<td>Financial Mathematics</td>
<td>Logical Reasoning</td>
<td>Probability</td>
<td>Relations and Functions</td>
<td>Mathematics Research Project</td>
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</tbody>
</table>
| **12**   | Not covered in the CCSSM | Not covered in the CCSSM | Grade 7: 7.SP  
High School: S-CP | High School: A-APR  
High School: F-IF  
High School: F-BF  
High School: F-LE  
High School: F-TF  
High School: S-ID | Not required in CCSSM |

**Foundations of Mathematics**

- • comparing odds to probability
- • vocabulary of “mutually exclusive” or “complementary”

<table>
<thead>
<tr>
<th>Grade</th>
<th>Trigonometry</th>
<th>Relations and Functions</th>
<th>Permutations, Combinations and the Binomial Theorem</th>
</tr>
</thead>
</table>
| **12**   | High School: A-REI  
High School: F-BF  
High School: F-TF  
High School: S-ID | High School: A-APR  
High School: A-REI  
High School: F-IF  
High School: F-BF  
High School: F-LE  
High School: F-TF  
High School: S-ID | High School: A-APR  
High School: S-CP |