**Kentucky Core Content**

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Description</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA-E-1.1.3</td>
<td>Odd and even numbers, composite and prime numbers,</td>
<td>These pages provide the opportunity for students to count by twos:</td>
</tr>
</tbody>
</table>
##Kentucky Core Content

<table>
<thead>
<tr>
<th>MA-E-1.1.4</th>
<th>Place value, expanded form, number magnitude (order, compare) to 100,000,000, and decimals through thousandths</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Houghton Mifflin MATHEMATICS</th>
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</thead>
<tbody>
<tr>
<td>PE: 209–210</td>
</tr>
<tr>
<td>TE: 303A, 369A, 503A, 581A</td>
</tr>
</tbody>
</table>

These pages provide opportunities for students use whole numbers through 100:


### Kentucky Core Content

**MA-E-1.1.5** Multiple representations of numbers (e.g., drawings, manipulative, symbols)

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>567–568, 569B, 569, 579B, 579–580</td>
</tr>
</tbody>
</table>

### Skills – Students will perform mathematical operations and procedures accurately and efficiently, explain how the skills work in real-world or mathematical situations, and are able to:

**MA-E-1.2.1** Read, write, and rename whole numbers


**MA-E-1.2.2** Add, subtract, multiply, and divide whole numbers using a variety of methods (e.g., mental, paper and pencil, calculator)

<p>| These pages provide opportunities for students to add and subtract: |</p>
<table>
<thead>
<tr>
<th>Kentucky Core Content</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MA-E-1.2.6 Estimate computational results using an appropriate strategy</td>
<td>PE: 142 TE: 142</td>
</tr>
<tr>
<td>MA-E-1.2.7 Use factors to determine prime and composite numbers</td>
<td>See Grade 4.</td>
</tr>
<tr>
<td>MA-E-1.2.8 Determine least common multiple (LCM)</td>
<td>See Grade 4.</td>
</tr>
<tr>
<td>MA-E-1.2.9 Order and compare (&gt;, &lt;, =) whole numbers and fractions</td>
<td>These pages provide opportunities for students to order and compare whole numbers: PE: 215–216, 229–230</td>
</tr>
</tbody>
</table>
## Relationships – Students will make connections between concepts and skills, show how connections are made, explain why procedures work, and/or make generalizations about mathematics in meaningful ways by showing:

| MA-E-1.3.2 | How properties (commutative, associative, identity properties of addition and multiplication, zero property of multiplication) are used in computation | PE: 17–18, 31–32, 63–64, 99–100, 125–128, 257–258, 275–276, 407–408  
## GEOMETRY/MEASUREMENT

Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations:

<table>
<thead>
<tr>
<th>MA-E-2.1.1</th>
<th>Basic geometric elements and terms including points, rays, lines (perpendicular, parallel, intersecting), segments, sides, edges, faces, vertices, radius, diameter, and angles (acute, right, obtuse)</th>
<th>These pages provide opportunities for students to practice identifying faces: PE: 361–362 TE: 361B, 361–362</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA-E-2.1.2</td>
<td>Basic two-dimensional shapes including circles, triangles (right, equilateral), all quadrilaterals, pentagons, hexagons, and octagons</td>
<td>These pages provide opportunities for students to practice circles, triangles, and quadrilaterals: PE: 353–356, 370, 374 TE: 353B, 353–354, 355B, 355–356, 370, 374</td>
</tr>
<tr>
<td>MA-E-2.1.3</td>
<td>Basic three-dimensional shapes including spheres, cones, cylinders, pyramids, cubes, and triangular and rectangular prisms</td>
<td>These pages provide opportunities for students to practice spheres, cones, cylinders, pyramids, cubes, and rectangular prisms: PE: 359–360 TE: 359B, 359–360</td>
</tr>
<tr>
<td>MA-E-2.1.4</td>
<td>Symmetry, congruence, and similar figures</td>
<td>These pages provide opportunities to explore symmetry: PE: 369–370 TE: 369B, 369–370</td>
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<td>Houghton Mifflin MATHEMATICS</td>
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**Skills – Students will perform mathematical operations and procedures accurately and efficiently, explain how the skills work in real-world or mathematical situations, and are able to:**

<p>| <strong>MA-E-2.2.2</strong> Use symmetry to construct a geometric design                      | These pages provide opportunities for students to use symmetry:                             |
|                                                                                      | PE: 369–370                                                                                       |
|                                                                                      | TE: 369B, 369–370                                                                                   |
| <strong>MA-E-2.2.3</strong> Identify and draw basic two-dimensional shapes in different orientations using rotations (turns), reflections (flips), and translations (slides) | PE: 354, 359–360, 365                                                                           |
|                                                                                      | TE: 354, 359B, 359–360, 365                                                                         |
| <strong>MA-E-2.2.4</strong> Identify basic three-dimensional shapes by appearance             | PE: 359–360                                                                                       |
|                                                                                      | TE: 359B, 359–360                                                                                   |
| <strong>MA-E-2.2.5</strong> Use nonstandard and standard units to measure weight, length, perimeter, area (figures that can be divided into rectangular shapes), and angles | These pages provide opportunities for students to practice weight, and length:                  |
| <strong>MA-E-2.2.6</strong> Use standard units to measure volume of rectangular prisms, liquid capacity, money, time, and temperature (e.g., above and below zero) | These pages provide opportunities for students to practice capacity, money, and time:             |</p>
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<tr>
<td>MA-E-2.2.8</td>
<td>PE: 453–454</td>
</tr>
<tr>
<td></td>
<td>TE: 453B, 453–454</td>
</tr>
</tbody>
</table>

**Relationships – Students will make connections between concepts and skills, explain how connections are made, explain why procedures work, and/or make generalizations about mathematics by showing:**

| MA-E-2.3.1            | PE: 354, 355–356, 360, 362, 369–370 |
| MA-E-2.3.2            | PE: 359–360, 361–362 |
| MA-E-2.3.3            | PE: 475–476 |
|                       | TE: 475B, 475–476 |
| MA-E-2.3.4            | PE: 369–370 |
|                       | TE: 369B, 369–370 |

**PROBABILITY/STATISTICS**

**Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations:**


**PE Pupil Edition**

**TE Teacher’s Edition**

**Page 8**
### Kentucky Core Content

| MA-E-3.1.2 | Probability of an unlikely event (near zero) and likely event (near one) | PE: 377–378  
|            |                                                                            | TE: 377B, 377–378 |


### Skills – Students will perform mathematical operations and procedures accurately and efficiently, explain how the skills work in real-world or mathematical situations, and are able to:

| MA-E-3.2.1 | Pose questions that can be answered by collecting data | PE: 153, 167  
|            |                                                          | TE: 153, 167 |


| MA-E-3.2.3 | Construct and interpret displays of data (e.g., line graph, bar graph, pictograph, line plot, simple Venn diagram, table) | PE: 157–158, 167–168, 169–170  

| MA-E-3.2.4 | Interpret circle graphs | See Grade 4. |

| MA-E-3.2.5 | Make predictions and draw conclusions based on data | PE: 377–378  
|            |                                                          | TE: 377B, 377–378 |

<p>| MA-E-3.2.6 | Find mean, median, mode, and range of a set of data | These pages provide opportunities for students to practice mode: PE: 153–154, 155, 157–158, 165, 167–168, 169–170 |</p>
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<tr>
<td><strong>MA-E-3.2.7</strong></td>
<td>Generate all possible outcomes in simple probability activities</td>
</tr>
<tr>
<td><strong>MA-E-3.2.8</strong></td>
<td>Determine the fairness of games using simple probability activities</td>
</tr>
</tbody>
</table>

**Relationships** – Students will make connections between concepts and skills, show how connections are made, explain why procedures work, and/or make generalizations about mathematics by showing:

| MA-E-3.3.1            | How data are used to draw conclusions |

| MA-E-3.3.2            | How predictions can be based on probability data |

| MA-E-3.3.3            | How the type of display is related to data (appropriateness of graphs) |

**ALGEBRAIC THINKING**

<table>
<thead>
<tr>
<th>Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations:</th>
</tr>
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<tbody>
<tr>
<td><strong>MA-E-4.1.1</strong> Functions (input-output) through pictures, tables, and words</td>
</tr>
<tr>
<td>PE: 26, 272</td>
</tr>
</tbody>
</table>

<p>| <strong>MA-E-4.1.2</strong> Number sentences with a missing value or variable |</p>
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<tr>
<td>MA-E-4.1.3 A positive coordinate system of graphing using ordered pairs</td>
<td>See Grade 4.</td>
</tr>
</tbody>
</table>

**Skills** – Students will perform mathematical operations and procedures accurately and efficiently, explain how the skills work in real-world or mathematical situations, and are able to:

| MA-E-4.2.2 Create tables to analyze patterns/functions | PE: 26, 272  
TE: 26, 272 |
| MA-E-4.2.3 Find solutions to number sentences with a missing value (e.g., $7 + N = 10$, $N + 5 > 14$) | PE: 34, 152, 192, 193–194, 198, 209–212, 213–214, 217–218, 282, 363–365, 367, 374  
| MA-E-4.2.4 Locate whole numbers, fractions, and decimals on a number line | These pages provide students the opportunity to locate whole numbers on a number line:  
| MA-E-4.2.5 Graph ordered pairs on a positive coordinate grid | See Grade 4. |

**Relationships** – Students will make connections between concepts and skills, show how connections are made, explain why procedures work, and/or make generalizations about mathematics by showing:

| MA-E-4.3.1 How patterns (e.g., numbers, pictures, words) are alike and different | PE: 34, 152, 192, 198, 210, 212, 213–214, 215, 217–218, 282, 363–365, 367, 374  
| MA-E-4.3.2 How rules involving number patterns can be explained | PE: 193–194, 209–212, 307–308, 311–312  