

Houghton Mifflin *MATHEMATICS* © 2002
 Kindergarten
 correlated to
 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

Kentucky Core Content

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| NUMBER/COMPUTATION | |
|---|---|
| Concepts – Students will describe properties of, give examples of, and apply to real-world or mathematical situations: | |
| MA-E-1.1.1 Whole numbers (0 to 100,000,000), fractions, mixed numbers, and decimals through thousandths | <p>These pages provide opportunities for students to practice whole numbers (to 30) and fractions:</p> <p>PE: C19–C20, C21–C22, C23–C24, C25–C26, C27–C28, C29–C30, D9–D10, D11–D12, D13–D14, D15–D16, D17–D18, D21–D22, D23–D24, D25–D26, D27–D28, D29–D30, D33–D34, D37–D38, D39–D44, E13–E14, E15–E16, E19–E20, E21–E22, E23–E24, E25–E30, F13–F14, F17–F18, F23–F24, F26, F27–F28, F31–F36, G9–G10, G11–G12, G13–G14, G15–G16, G19–G20, G21–G22, G23–G24, G25–G26, G27–G28, G29–G33, H21–H22, H23–H24, H25–H26, H27–H28, H29–H33, I18, I23–I26, I29–I32, I36, J9–J10, J11–J12, J13–J14, J15–J16, J17–J18, J19–J22, J23–J24, J25–J26, J27–J28, J29–J30, J33–J35</p> <p>TE: 150–151, 153–155, 157–159, 161–163, 165–167, 169–171, 179–183, 194–195, 197–199, 201–203, 205–207, 209–211, 215–217, 219–221, 223–225, 227–229, 231–233, 237–239, 242, 246–247, 251, 255–259, 278, 287, 289–293, 301–305, 307–309, 312–313, 315–321, 345–346, 352, 354–355, 375, 381, 384–385, 387–388, 393–397, 412–413, 416–417, 420–421, 425–427, 431, 434–435, 438–439, 442–443, 446–447, 451–454, 471, 474–475, 477–479, 483–485, 488–489, 492–493, 496–497, 498, 500–501, 504, 508–509, 513–516, 543, 563–565, 570–577, 583, 597, 601, 604–605, 609, 613, 616–617, 621–624, 627, 630–631, 635–636, 638–639, 641–643, 646–647, 651–655</p> |
| MA-E-1.1.2 The operations of addition, subtraction, multiplication, and division | <p>These pages provide opportunities for students to use addition and subtraction:</p> <p>PE: G9–G14, G19–G28</p> <p>TE: 299, 410–421, 428–447</p> |
| MA-E-1.1.3 Odd and even numbers, composite and prime numbers, multiples, and factors | <p>These pages prepare students for odd and even:</p> <p>PE: C9–C14</p> <p>TE: 130–141</p> |

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 Kindergarten
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 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|---|---|
| MA-E-1.1.4 Place value, expanded form, number magnitude (order, compare) to 100,000,000, and decimals through thousandths | These pages provide opportunities for students to use place value and number magnitude of whole numbers through 31: PE: C9–C14, C19–C38, D9–D18, D21–D30, D35–D40, E15–E16, E19–E26, F14, F27–F28, F32, G10–G12, G14, G16, G21–G28, H11–H14, H16, H19–H28, I31–I32, J9–J14, J17–J18, J23–J30 TE: 130–141, 148–151, 152–155, 156–159, 160–163, 164–167, 168–175, 179–183, 192–195, 196–199, 200–203, 204–207, 208–211, 214–217, 218–221, 222–225, 226–229, 231–233, 237–239, 242, 246–247, 251, 255–259, 278, 287, 289–293, 301–305, 307–309, 312–313, 315–321, 345–346, 352, 354–355, 375, 381, 384–385, 387–388, 393–397, 412–413, 416–417, 420–421, 425–427, 431, 434–435, 438–439, 442–443, 446–447, 451–454, 471, 474–475, 477–479, 483–485, 488–489, 492–493, 496–498, 500–501, 504, 508–509, 513–516, 543, 563–565, 570–573, 575, 583, 597, 598–601, 602–605, 606–609, 614–617, 624–627, 628–631, 632–635, 636–639, 641–643, 646–647, 651–655 |
| MA-E-1.1.5 Multiple representations of numbers (e.g., drawings, manipulative, symbols) | PE: C9–C14, C19–C28, D9–D16, D21–D26, J9–J14, J17–J18, J23–J28 TE: 127–129, 131–133, 135–141, 149–151, 153–155, 157–159, 161–163, 165–167, 193–195, 197–199, 201–203, 205–207, 215–217, 219–221, 223–225, 599–601, 603–605, 607–609, 615–617, 625–627, 629–631, 633–635, 637–639 |
| 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 | PE: C9–C10, C19–C38, D9–D18, D21–D30, D35–D40, E15–E16, E19–E26, F14, F27–F28, F32, G10–G12, G14, G16, G21–G28, H11–H14, H16, H19–H28, I31–I32, J9–J14, J17–J18, J23–J30 TE: 130–141, 148–151, 152–155, 156–159, 160–163, 164–167, 168–175, 179–183, 192–195, 196–199, 200–203, 204–207, 208–211, 214–217, 218–221, 222–225, 226–229, 231–233, 237–239, 242, 246–247, 251, 255–259, 278, 287, 289–293, 301–305, 307–309, 312–313, 315–321, 345–346, 352, 354–355, 375, 381, 384–385, 387–388, 393–397, 412–413, 416–417, 420–421, 425–427, 431, 434–435, 438–439, 442–443, 446–447, 451–454, 471, 474–475, 477–479, 483–485, |

Houghton Mifflin *MATHEMATICS* © 2002
 Kindergarten
 correlated to
 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|---|--|
| | 488–489, 492–493, 496–498, 500–501, 504, 508–509, 513–516, 543, 563–565, 570–573, 575, 583, 597, 598–601, 602–605, 606–609, 614–617, 624–627, 628–631, 632–635, 636–639, 641–643, 646–647, 651–655 |
| MA-E-1.2.2 Add, subtract, multiply, and divide whole numbers using a variety of methods (e.g., mental, paper and pencil, calculator) | These pages provide opportunities for students to use addition and subtraction: PE: G9–G14, G19–G28 TE: 299, 410–421, 428–447 |
| MA-E-1.2.3 Add and subtract fractions with like denominators; add and subtract decimals through hundredths | These pages provide opportunities for students to identify fractions: PE: I 31–I 32 TE: 574–577 |
| MA-E-1.2.4 Skip-count forward and backward | See Grade 1. |
| MA-E-1.2.5 Estimate quantities of objects | These pages prepare students to estimate quantities: PE: C9–C10, C11–C12, C13–C14, D37–D38 TE: 130–141, 244–247, 248–251, 644–647 |
| MA-E-1.2.6 Estimate computational results using an appropriate strategy | These pages prepare students to estimate sums and differences: PE: G9–G14, G19–G28 TE: 410–421, 428–447 |
| MA-E-1.2.7 Use factors to determine prime and composite numbers | See Grade 4. |
| MA-E-1.2.8 Determine least common multiple (LCM) | See Grade 4. |
| MA-E-1.2.9 Order and compare ($>$, $<$, $=$) whole numbers and fractions | PE: C9–C14, D29–D30, D37–D38 TE: 130–141, 230–233, 244–247, 248–251, 644–647 |
| 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-1.3.1 How fractions, decimals, and whole numbers relate | These pages provide opportunities for students to identify fractions: |

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 Kindergarten
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 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|--|---|
| (equivalence, order) | PE: I 31–I 32 TE: 574–577 |
| MA-E-1.3.2 How properties (commutative, associative, identity properties of addition and multiplication, zero property of multiplication) are used in computation | See Grade 1. |
| MA-E-1.3.3 How the base 10 number system relates to place value (e.g., ten tens make one hundred, ten hundredths make one-tenth) | PE: D21–D30, J9–J18, J25–J30 TE: 214–233, 594–617, 628–643 |
| GEOMETRY/MEASUREMENT | |
| Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations: | |
| MA-E-2.1.1 Basic geometric elements and terms including points, rays, lines (perpendicular, parallel, intersecting), segments, sides, edges, faces, vertices, radius, diameter, and angles (acute, right, obtuse) | See Grade 1. |
| MA-E-2.1.2 Basic two-dimensional shapes including circles, triangles (right, equilateral), all quadrilaterals, pentagons, hexagons, and octagons | PE: A17–A18, A23–A28, A30, A36, I9–I16 TE: 27–29, 39–41, 43–45, 56–59, 526–541, 549–551 |
| MA-E-2.1.3 Basic three-dimensional shapes including spheres, cones, cylinders, pyramids, cubes, and triangular and rectangular prisms | PE: I9–I22 TE: 544–559 |
| MA-E-2.1.4 Symmetry, congruence, and similar figures | PE: B19–B20, I9–I16, I27–I28 TE: 99–101, 527–529, 531–533, 535–537, 567–569 |
| MA-E-2.1.5 Nonstandard and standard (U.S. Customary, metric) units of measurement | PE: F9–F14, F21–F22 TE: 331–333, 335–337, 339–341, 343–345, 347–349, 365–367, 369–371 |
| 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-2.2.1 Sort objects and compare attributes | PE: B9–B10, B11–B12, B13–B14, B15–B18, B19–B20, B21–B22, B23–B24, B25–B30, F27–F28, F29–F30, F31–F32, H27–H28, I15–I18, J15–J16 TE: 53–55, 76–79, 80–83, 84–87, 88–91, 92–95, 98–101, 102–109, |

Houghton Mifflin *MATHEMATICS* © 2002
 Kindergarten
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 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|---|---|
| | 110–112, 383–385, 387–389, 391–393, 507–509, 538–541, 611–613 |
| MA-E-2.2.2 Use symmetry to construct a geometric design | PE: I27–I28 TE: 567–569 |
| MA-E-2.2.3 Identify and draw basic two-dimensional shapes in different orientations using rotations (turns), reflections (flips), and translations (slides) | PE: B19–B20, I9–I16 TE: 99–101, 527–529, 531–533, 535–537 |
| MA-E-2.2.4 Identify basic three-dimensional shapes by appearance | PE: I9–I22 TE: 544–559 |
| MA-E-2.2.5 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 measure weight and length. PE: F9–F14, F21–F22 TE: 330–333, 335–337, 339–341, 343–345, 347–349, 365–367, 369–371 |
| MA-E-2.2.6 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 using money, time, and temperature: PE: E19–E26, F27–F32, J15–J16 TE: 302–317, 376–379, 382–393, 610–613 |
| MA-E-2.2.7 Choose appropriate tools (e.g., protractors, meter sticks, rulers) for specific measurement tasks | PE: E19–E27, E29, F24 TE: 303–305, 307–309, 311–313, 315–317, 357–359, 362, 373–379 |
| MA-E-2.2.8 Identify measurable attributes of an object and make an estimate using appropriate units of measurement | PE: F9–F14, F21–F22 TE: 330–333, 335–337, 339–341, 343–349, 365–367, 369–371 |
| MA-E-2.2.9 Use measurements to describe and compare attributes of objects | PE: F9–F14, F19–F24 TE: 330–349, 356–379 |
| 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 How two-dimensional shapes are alike or different | PE: A17–A18, A23–A28, A30, A36, I9–I16 TE: 27–29, 39–41, 43–45, 56–59, 526–541, 549–551 |
| MA-E-2.3.2 How three-dimensional shapes are alike or different | PE: I9–I22 |

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 Kindergarten
 correlated to
 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|---|--|
| | TE: 544–559 |
| MA-E-2.3.3 How units within the <u>same</u> measurement system (U.S. Customary or metric) are related | See Grade 1. |
| MA-E-2.3.4 How lines of symmetry relate to shapes | PE: I27–I28 TE: 567–569 |
| PROBABILITY/STATISTICS | |
| Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations: | |
| MA-E-3.1.1 Mean, median, mode, and range of a set of data | See Grade 1. |
| MA-E-3.1.2 Probability of an unlikely event (near zero) and likely event (near one) | See Grade 1. |
| MA-E-3.1.3 The process of using data to answer questions (e.g., pose a question, plan, collect data, organize and display data, interpret data to answer question) | PE: A29–A32, F15–F16 TE: 49–51, 53–55, 57–59, 61–63, 351–353 |
| 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 | These pages provide opportunities for students to collect, organize, and interpret data: PE: A29–A32, F15–F16 TE: 49–51, 53–55, 57–59, 61–63, 351–353 |
| MA-E-3.2.2 Collect, organize, and describe data (e.g., drawings, tables, charts) | PE: A29–A32, F15–F16 TE: 49–51, 53–55, 57–59, 61–63, 351–353 |
| MA-E-3.2.3 Construct and interpret displays of data (e.g., line graph, bar graph, pictograph, line plot, simple Venn diagram, table) | These pages provide opportunities for students to construct tables, pictographs, and bar graphs: PE: A29–A30, A31–A35, C33–C34, D39–D40, F15–F16, J19–J20 TE: 49–59, 61–63, 177–179, 253–255, 351–353, 618–621 |
| MA-E-3.2.4 Interpret circle graphs | See Grade 4. |
| MA-E-3.2.5 Make predictions and draw conclusions based on data | See Grade 1. |

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 Kindergarten
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 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|--|---|
| MA-E-3.2.6 Find mean, median, mode, and range of a set of data | See Grade 1. |
| MA-E-3.2.7 Generate all possible outcomes in simple probability activities | See Grade 1. |
| MA-E-3.2.8 Determine the fairness of games using simple probability activities | See Grade 1. |
| 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 | PE: A29–A32, F15–F16 TE: 49–51, 53–55, 57–59, 61–63, 351–353 |
| MA-E-3.3.2 How predictions can be based on probability data | See Grade 1. |
| MA-E-3.3.3 How the type of display is related to data (appropriateness of graphs) | See Grade 1. |
| ALGEBRAIC THINKING | |
| Concepts – Students will describe properties of, define, give examples of, and apply to both real-world and mathematical situations: | |
| MA-E-4.1.1 Functions (input-output) through pictures, tables, and words | See Grade 1. |
| MA-E-4.1.2 Number sentences with a missing value or variable | PE: D29, D31–D32, J18 TE: 230–237, 614–617 |
| MA-E-4.1.3 A positive coordinate system of graphing using ordered pairs | See Grade 4. |
| 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-4.2.1 Find rules for, extend, and create patterns | PE: B9–B30, I15–I18 TE: 76–79, 80–83, 84–87, 88–91, 92–95, 98–101, 102–109, 110–112, 538–541 |
| MA-E-4.2.2 Create tables to analyze patterns/functions | See Grade 1. |
| MA-E-4.2.3 Find solutions to number sentences with a missing | PE: D29, D31–D32, J18 |

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 Kindergarten
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 Kentucky Core Content for Mathematics Assessment
 Grades Primary through Grade 5 with Assessment at Grade 5

| Kentucky Core Content | Houghton Mifflin <i>MATHEMATICS</i> |
|--|--|
| value (e.g., $7 + N = 10$, $N + 5 > 14$) | TE: 230–237, 614–617 |
| MA-E-4.2.4 Locate whole numbers, fractions, and decimals on a number line | These pages provide opportunities for students to locate whole numbers and fractions on a number line: PE: D29, J18 TE: 231–233, 615–617 |
| 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: B9–B30, I15–I18 TE: 76–79, 80–83, 84–87, 88–91, 92–95, 98–101, 102–109, 110–112, 538–541 |
| MA-E-4.3.2 How rules involving number patterns can be explained | PE: B15, D31–D32 TE: 234–237 |