

A Correlation of

SCOTT FORESMAN ■ ADDISON WESLEY

Mathematics

to the

**Orange County
Public Schools
Curriculum, Instruction,
Assessment Alignment
GRADES K – 5**



T/M-139

Introduction

This document demonstrates the high degree of success students will achieve when using **Scott Foresman – Addison Wesley Mathematics** in meeting the objectives of the Orange County Public Schools Curriculum, Instruction, Assessment Alignment. Correlation page references are to the Teacher Edition, which contains facsimile Pupil Edition pages.

Scott Foresman – Addison Wesley Mathematics was carefully developed to reflect the specific needs of students and teachers at every grade level, while maintaining an overall primary goal: to have math make sense from every perspective. This program is based on scientific research that describes how children learn mathematics well and on classroom-based evidence that validates proven reliability.

● Reaching All Learners

Scott Foresman – Addison Wesley Mathematics addresses the needs of every student through structured instruction that makes concepts easier for students to grasp. Lessons provide step-by-step examples that show students how to think about and solve the problem. Built-in leveled practice in every lesson allows the teacher to customize instruction to match students' abilities. Reaching All Learners, featured in the Teacher Edition, helps teachers meet the diverse needs of the classroom with fun and stimulating activities that are easy to incorporate directly into the lesson plan.

● Test Prep

Scott Foresman - Addison Wesley Mathematics builds understanding through connections to prior knowledge, math strands, other subjects and the real world. It provides practice for maximum results and offers assessment in a variety of ways. Besides carefully placed reviews at the end of each Section, an important Test Prep strand runs throughout the program. Writing exercises prepare students for open-ended and short-or extended-response questions on state and national tests. Spiral review in a test format help students keep their test-taking skills sharp.

● Priority on problem solving:

Problem-solving instruction is systematic and explicit. Reading connections help children with problem-solving skills and strategies for math. Reading for Math Success encourages students to use the reading skills and strategies they already know to solve math problems.

● Instructional Support

In the Teacher Edition, the Lesson Planner provides an easy, at-a-glance planning tool. It identifies objectives, math understandings, focus questions, vocabulary, and resources for each lesson in the chapter. Professional Development at the beginning of each chapter in the Teacher Edition includes a Skills Trace as well as Math Background and Teaching Tips for each section in the chapter.

Ancillaries help to reach all learners with practice, problem solving, hands-on math, language support, assessment and teacher support. Technology resources for both the student and the teacher provide a whole new dimension to math instruction by helping to create motivating and engaging lessons.

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to the
OCPS Curriculum, Instruction, Assessment Alignment
GRADES K – 2**

Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.1.1.1: The student associates verbal names, written word names, and standard numerals with the whole numbers less than 1000.

Grade	TASK ANALYSIS
	The student...
	WHOLE NUMBERS
K	<ul style="list-style-type: none"> • counts orally to 100. 53A–53B, 53–54, 57A–57B, 57–58, 75L, 77A–77B, 77–78, 79A–79B, 79–80, 83A–83B, 83–84, 103A–103B, 103–104, 115A–115B, 115–116, 289A–289B, 289–290, 291A–291B, 291–292
	<ul style="list-style-type: none"> • counts to 30 objects, using verbal names and one-to-one correspondence. 53A–53B, 53–54, 57A–57B, 57–58, 63A–63B, 63–64, 75I, 75L, 77A–77B, 77–78, 79A–79B, 79–80, 83A–83B, 83–84, 87A–87B, 87–88, 89A–89B, 89–90, 101I, 101K–101L, 103A–103B, 103–104, 115A–115B, 115–116, 121A–121B, 121–122
	<ul style="list-style-type: none"> • matches numbers presented orally to written numerals to 30. 55B, 83A, 85B, 107B, 109B, 117B
	<ul style="list-style-type: none"> • reads and writes numerals to 10 or more. 55A–55B, 55–56, 59A–59B, 59–60, 61A–61B, 61–62, 75L, 81A–81B, 81–82, 85A–85B, 85–86, 101K–101L, 105A–105B, 105–106, 107A–107B, 107–108, 109A–109B, 109–110, 111A–111B, 111–112, 117A–117B, 117–118
	<ul style="list-style-type: none"> • identifies the number of elements in a set having up to 30 elements. 53A–53B, 53–54, 56, 60, 61–62, 63A–63B, 63–64, 77A–77B, 77–78, 79A–79B, 79–80, 81–82, 83A–83B, 83–84, 85–86, 87A–87B, 87–88, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 109A–109B, 109–110, 111A–111B, 111–112, 115A–115B, 115–116, 117A–117B, 117–118, 121A–121B, 121–122

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> identifies number words to 10. 55, 59B, 59, 61, 77B, 81, 85, 105, 107, 109, 111
	<ul style="list-style-type: none"> knows that cardinal numbers indicate quantity and ordinal numbers indicate position. 51L, 69A–69B, 69–70, 75L, 93A–93B, 93–94
1	<ul style="list-style-type: none"> counts, reads, and writes numerals to 100 or more. 38, 109–110, 239I, 241A–241B, 241–242, 245A–245B, 245–246, 247A–247B, 247–248, 253, 279I, 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–287B, 287–288
	<ul style="list-style-type: none"> reads number words to 10. 40
	<ul style="list-style-type: none"> writes number words to 10. 40
	<ul style="list-style-type: none"> identifies ordinal numbers 1st – 10th or higher. 240, 267A–267B, 267–268
	<ul style="list-style-type: none"> uses ordinal numbers to describe the position of an object. 267A–267B, 267–268
2	<ul style="list-style-type: none"> reads numerals to 1000. 395A–395B, 395–396
	<ul style="list-style-type: none"> writes numerals to 1000. 395A–395B, 395–396
	<ul style="list-style-type: none"> reads number words to 20 or more. 85A–85B, 85–86, 395A–395B, 395–396
	<ul style="list-style-type: none"> writes number words to 20 or more. 85A–85B, 85–86, 395A–395B, 395–396
	<ul style="list-style-type: none"> identifies and uses ordinal numbers 1st – 100th. 103A–103B, 103–104

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.1.1.2: The student understands the relative size of whole numbers between 0 and 1000.

Grade	TASK ANALYSIS
	The student...
	RELATIVE SIZE OF WHOLE NUMBERS
K	<ul style="list-style-type: none"> • uses numbers and pictures to describe how many objects are in a set to 10 or more. 53A–53B, 53–54, 56, 60, 61–62, 63A–63B, 63–64, 77A–77B, 77–78, 79A–79B, 79–80, 81–82, 83A–83B, 83–84, 85–86, 87A–87B, 87–88, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 109A–109B, 109–110, 111A–111B, 111–112, 115A–115B, 115–116, 117A–117B, 117–118, 121A–121B, 121–122, 291A–291B, 291–292, 295A–295B, 295–296
	<ul style="list-style-type: none"> • uses language such as <i>before</i> or <i>after</i> to describe relative position in a sequence of whole numbers on a number line to 10 or more (e.g., 4 is before 5, 5 is after 4). 91A–91B, 91–92, 113A, 113–114
	<ul style="list-style-type: none"> • compares two or more sets (to 10 objects in each set) and identifies which is equal to, more than, less than, one more than, or one less than the other. 51J, 51L, 63A–63B, 63–64, 87A–87B, 87–88
	<ul style="list-style-type: none"> • orders numbers to 30. 51K, 65A–65B, 65–66, 75J, 75K, 91A–91B, 91–92
1	<ul style="list-style-type: none"> • orders numbers to 100. 31A–31B, 31–32, 239J, 263A–253B, 263–264, 299A–299B, 299–300, 300A–300B, 300–301

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> compares, identifies, and explains which of two or more sets (up to 100 objects in each set) is equal to, greater than, or less than the other. 29A–29B, 29–30, 297A–297B, 297–298
	<ul style="list-style-type: none"> selects symbols to identify a number (0–100) as more than, equal to, or less than (<, =, >) another number. 297A–297B, 297–298
2	<ul style="list-style-type: none"> creates a set which contains fewer or more elements than a given set. 91A–91B
	<ul style="list-style-type: none"> compares and orders whole numbers to 1000, using concrete materials (e.g., base 10 blocks) or drawings. 91A–91B, 91, 389J, 399A–399B, 399–400
	<ul style="list-style-type: none"> compares and orders whole numbers to 1000, using number lines. 419
	<ul style="list-style-type: none"> selects symbols to identify a number (0–1000) as more than, equal to, or less than (<, =, >) another number. 91A–91B, 91–92, 399A–399B, 399–400

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Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.1.1.3: The student uses objects to represent whole numbers or commonly used fractions and relates these numbers to real-world situations.

Grade	TASK ANALYSIS
	The student...
	FRACTIONS
K	<ul style="list-style-type: none"> • uses sets of concrete materials to represent quantities to 10 or more, given in verbal or written form. 51I, 53A–53B, 55A–55B, 55, 57A–57B, 57, 59A, 59, 61B, 63B, 75I, 77A–77B, 77, 79A–79B, 79, 83A–83B, 83 • uses concrete materials to represent fractional parts of a whole (one-half, one-fourth). 215A–215B
1	<ul style="list-style-type: none"> • determines if models are divided into equal parts. 155J, 181A–181B, 181–182, 183A–183B, 183–184, 185A–185B, 185–186, 189A–189B, 189–190 • investigates fractions in real-life situations, using concrete materials (e.g., pies, oranges). 181A–181B, 183A–183B, 185A–185B, 187A–187B, 189A–189B • uses concrete materials and drawings to represent and explain fractions (one-half, one-fourth, three-fourths) as part of a whole. 183A–183B, 183–184, 185A–185B, 185–186 • uses concrete materials and drawings to represent and explain fractions (one-half, one-fourth, three-fourths) as part of a set. 187A–187B, 187–188
2	<ul style="list-style-type: none"> • compares, illustrates, and explains halves, thirds, fourths, and eighths as part of a whole, using concrete materials or drawings. 269A–269B, 269–270, 271A–271B, 271–272, 273A–372B, 273–274 • identifies a fraction that is part of a whole. 245J, 271A–271B, 271–272, 273A–372B, 273–274

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> • compares fractions in real-life situations, using concrete materials. 275A–275B, 275–276, 283
	<ul style="list-style-type: none"> • explains, orally and in writing, that the total of equivalent fractional parts equals one whole (e.g., $8/8 = 1$). 269A–269B, 269–270
	<ul style="list-style-type: none"> • compares, illustrates, and explains halves, thirds, fourths, and eighths as part of a set/group, using concrete materials or drawings. 277A–277B, 277–278
	<ul style="list-style-type: none"> • identifies a fraction as part of a set/group. 277A–277B, 277–278

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Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.1.1.4: The student understands that whole numbers can be represented in a variety of equivalent forms.

Grade	TASK ANALYSIS
	The student...
	EQUIVALENT FORMS
K	<ul style="list-style-type: none"> • represents equivalent forms of the same number to 10 or more through the use of concrete materials (e.g., using unifix cubes, 5 can be represented as $1 + 4$, $2 + 3$, $0 + 5$ or 5 pennies equals 1 nickel). <p>223I, 223K, 225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232</p>
1	<ul style="list-style-type: none"> • uses concrete materials (including coins) to construct equivalent forms of the same number to 20 or more. <p>1J, 11A–11B, 11–12, 13A–13B, 13–14, 15A–15B, 15–16, 17A–17B, 17–18, 21A–21B, 21–22, 107A–107B, 107–108, 329J, 343A–343B, 343A–343B, 343–344, 347B, 347</p>
	<ul style="list-style-type: none"> • develops pictorial representations (diagrams) to express equivalent forms of the same number to 20 or more. <p>1J, 11A–11B, 11–12, 13A–13B, 13–14, 15A–15B, 15–16, 17A–17B, 17–18, 21A–21B, 21–22, 107A–107B, 107–108</p>
	<ul style="list-style-type: none"> • creates and records number expressions to represent equivalent forms of the same number to 20 or more (e.g., 16 can be represented as $4 + 4 + 4 + 4$, $10 + 6$, $20 - 4$). <p>1J, 11A–11B, 11–12, 13A–13B, 13–14, 15A–15B, 15–16, 17A–17B, 17–18, 21A–21B, 21–22, 107A–107B, 107–108, 149</p>
2	<ul style="list-style-type: none"> • represents equivalent forms for the same number through the use of concrete materials (including coins), diagrams, and expanded notation (e.g., 25 can be expressed as 2 dimes and 1 nickel or as 2 tens and 5 ones or as 2 ten sticks and 5 single cubes). <p>117A–117B, 117–118, 389J, 395A–395B, 395–396</p>

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Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.2.1.1: The student understands and applies the concepts of counting (by 2s, 3s, 5s, 10s, 25s, 50s), grouping, and place value with whole numbers between 0 and 100.

Grade	TASK ANALYSIS
	Counting and Place Value
K	<ul style="list-style-type: none"> counts orally, with teacher direction, to 100 by 2s, 5s, and 10s, using a hundred chart or concrete materials. 113A–113B, 113–114, 287A–287B, 287–288, 293A–293B, 293–294, 295A–295B, 295–296, 297A–297B, 297–298 forms sets to count by 2s, 5s, and 10s, using concrete materials or pictures. 113A–113B, 113–114, 287A–287B, 287–288, 295A–295B, 295–296 counts backward from 10 to one. 91A, 91
1	<ul style="list-style-type: none"> counts orally to 100 by 2s, 5s, and 10s with or without a hundred chart. 243A–243B, 243–244, 255A–255B, 255–256, 257A–257B, 257–258, 269, 273, 274 counts forward or backward by one, beginning with any number less than 100. 25A–25B, 25–26, 27A–27B, 27–28, 91A–91B, 91–92, 95A–95B, 95–96, 105A–105B, 105–106, 295A–295B, 295–296, 419A–419B, 419–420 counts forward by tens from any number less than 10 using a hundred chart. 273 uses concrete materials, pictures, and symbols to show the place-value groupings of numbers to 100. 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> • matches place–value models (e.g., base ten blocks representation) to numerals. 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 303A–303B, 303–304
	<ul style="list-style-type: none"> • matches a numeral to a place–value description (e.g., what numeral in 59 is in the tens place?). 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–877B, 287–288, 289A–289B, 289–290
	<ul style="list-style-type: none"> • determines the value of a number written in expanded notation (e.g., $50 + 9 = 59$). 285A–285B, 285–286, 293, 303A–303B, 303–304
	<ul style="list-style-type: none"> • finds the place value to 100 (e.g., in 59, what is the place value of 9?). 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–877B, 287–288, 289A–289B, 289–290
2	<ul style="list-style-type: none"> • counts to 1000 by 2s, 3s, 5s, 10s, 25s, 50s, and 100s, using a variety of ways (e.g., hundred chart, calculator, mental mathematics, paper/ pencil). 99A–99B, 99–100, 391B
	<ul style="list-style-type: none"> • counts by 10s from any given number less than 1000. 99A–99B, 99–100
	<ul style="list-style-type: none"> • Identifies a number that is 10 more or 10 less than a given number. 99B, 99–100, 408, 414
	<ul style="list-style-type: none"> • counts forward or backward by one, beginning with any number less than 1000. 97A–97B, 97–98, 407A, 407–408
	<ul style="list-style-type: none"> • demonstrates the place–value groupings of numbers to 1000, using concrete materials, pictures, and symbols. 79I, 83A–83B, 83–84, 393A–393B, 393–394
	<ul style="list-style-type: none"> • matches a numeral to a place–value description (e.g., what numeral in 432 is in the tens place?). 393A–393B, 393–394
	<ul style="list-style-type: none"> • determines the value of a number written in expanded notation (e.g., $300 + 50 + 4 = 354$). 389I, 395A–395B, 395–396
	<ul style="list-style-type: none"> • finds the place value of a digit to 1000 (e.g., in 432, what is the place value of 3?). 393A–393B, 393–394

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Benchmark

MA.A.2.1.2: The student uses number patterns and the relationships among counting, grouping, and place value strategies to demonstrate an understanding of the whole number system.

Grade	TASK ANALYSIS
	The student...
	PLACE VALUE
K	<ul style="list-style-type: none"> knows the relationships between larger numbers and smaller numbers (e.g., on a number line, move to the left for smaller numbers, and move to the right for larger numbers). 91A–91B, 91–92, 113–114
1	<ul style="list-style-type: none"> identifies a number that is 10 more or 10 less than a given number. 258, 295A–295B, 295–296
	<ul style="list-style-type: none"> uses concrete materials to count and group 11 or more objects into tens and ones (e.g., 2 tens and 3 ones = 23 or 20 + 3). 241A–241B, 241–242, 247A–247B, 247–248, 253, 279I, 281A–281B, 281–282, 283A–283B, 283–284, 285A, 285–286, 287A–287B, 287–288
	<ul style="list-style-type: none"> writes numbers from 11 to 99 as standard numerals and as tens and ones. 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–287B, 287–288, 289A–289B, 289–290
	<ul style="list-style-type: none"> knows that one 10 is equivalent to 10 ones. 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–287B, 287–288
	<ul style="list-style-type: none"> uses concrete materials and standard numerals to show zero as a place holder. 281–282, 283A, 284, 285, 303A–303B, 304
	<ul style="list-style-type: none"> knows the place value of a given digit in whole numbers to 100. 281A–281B, 281–282, 283A–283B, 283–284, 285A–285B, 285–286, 287A–287B, 287–288, 289A–289B, 289–290

Grade	TASK ANALYSIS The student...
2	<ul style="list-style-type: none"> counts and groups objects into hundreds, tens, and ones. 393A–393B, 393–394, 395A–395B, 395–396
	<ul style="list-style-type: none"> relates groups of objects to the corresponding written numeral (e.g., 4 groups of 100, 2 groups of 10, and 6 ones = 426). 83A–83B, 83–84, 393A–393B, 393–394, 395A–395B, 395–396
	<ul style="list-style-type: none"> models place value to 100 using concrete materials including use of zero as a place holder. 83A–83B, 83–84
	<ul style="list-style-type: none"> explains orally and in writing the use of zero as a place holder. 393A–393B, 393–394, 396
	<ul style="list-style-type: none"> represents trading 10 tens for 100 and 100 for 10 tens, using concrete materials. <i>These pages prepare students to meet this task.</i> 397A, 397–398
	<ul style="list-style-type: none"> represents a number that is 100 more or 100 less than a given number, using concrete materials. 391A–391B, 392
	<ul style="list-style-type: none"> identifies a number that is 100 more or 100 less than a given number. 391B, 392

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Subject Area: Mathematics
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Benchmark

MA.A.3.1.1: The student understands and explains the effects of addition and subtraction on whole numbers, including the inverse (opposite) relationship of the two operations.

Grade	TASK ANALYSIS
	The student...
	ADDITION AND SUBTRACTION
K	<ul style="list-style-type: none"> demonstrates and describes the effect of putting together and taking apart sets with up to 10 objects (e.g., 3 cubes and 4 cubes are 7 cubes). 223I, 223J, 223K, 223L, 225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232, 233A–233B, 233–234, 235A–235B, 235–236, 237A–237B, 237–238, 239A–239B, 239–240, 243K, 243L, 245A–245B, 245–246, 247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252, 253A–253B, 253–254, 255A–255B, 255–256, 257A–257B, 257–258, 259A–259B, 259–260, 263K, 263L, 265A–265B, 265–266, 267A–267B, 267–268, 271A–271B, 271–272, 273A–273B, 273–274, 275A–275B, 275–276, 277A–277B, 277–278, 279A–279B, 279–280, 281–281B, 281–282
	<ul style="list-style-type: none"> uses a number line to demonstrate how to count up and count back from a given number. 91A–91B, 91–92, 113A–113B, 113–114
1	<ul style="list-style-type: none"> uses manipulatives, drawings, symbols, and story problems to demonstrate knowledge of the meaning of addition (putting together, increasing). 45A–45B, 45–46, 47A–47B, 47–48, 49A–49B, 49–50, 51A–51B, 51–52, 53A–53B, 53–54, 55–56, 57A–57B, 57–58, 59, 71A–71B, 71–72, 83
	<ul style="list-style-type: none"> uses manipulatives, drawings, symbols, and story problems to demonstrate knowledge of the meaning of subtraction (taking away, comparing, finding differences). 61A–61B, 61–62, 63A–63B, 63–64, 65A–65B, 65–66, 67A–67B, 67–68, 69A–69B, 69–70, 71A–71B, 71–72, 83

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> uses concrete objects and thinking strategies (count on, doubles, doubles plus one, make 10) to solve basic addition facts to 20. 91A–91B, 91–92, 93A–93B, 93–94, 95A–95B, 95–96, 97A–97B, 97–98, 101, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 115, 137A–137B, 137–138, 139A–139B, 139–140, 147, 417A–417B, 417–418, 419A–419B, 419–420, 421A–421B, 421–422, 423A–423B, 423–424, 425A–425B, 425–426, 433, 435A–435B, 435–436, 437A–437B, 437–438
	<ul style="list-style-type: none"> uses concrete objects and thinking strategies (count back, count up) to solve basic subtraction facts based on sums to 20. 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 135, 137A–137B, 137–138, 139A–139B, 139–140, 141A–141B, 141–142, 147, 435A–435B, 435–436, 437A–437B, 437–438, 439A–439B, 439–440, 441A–441B, 441–442, 443A–443B, 443–444
	<ul style="list-style-type: none"> solves addition and subtraction equations in both horizontal and vertical formats. 49A–49B, 49–50, 51A–51B, 51–52, 53A–53B, 53–54, 59, 65A–65B, 65–66, 67A–67B, 67–68, 69A–69B, 69–70, 73, 83, 91A–91B, 91–92, 93A–93B, 93–94, 95A–95B, 95–96, 97A–97B, 97–98, 99A–99B, 99–100, 101, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108, 115, 125A–125B, 125–126, 127A–127B, 127–128, 129A–129B, 129–130, 133A–133B, 133–134, 135, 137A–137B, 137–138, 139A–139B, 139–140, 141A–141B, 141–142, 143A–143B, 143–144, 145A–145B, 145–146, 147, 417A–417B, 417–418, 419A–419B, 419–420, 421A–421B, 421–422, 423A–423B, 423–424, 425A–425B, 425–426, 433, 435A–435B, 435–436, 437A–437B, 437–438, 439A–439B, 439–440, 441A–441B, 441–442, 443A–443B, 443–444, 445A–445B, 445–446, 447A–447B, 447–448, 459A–459B, 459–460, 461A–461B, 461–462, 463A–463B, 463–464, 465A–465B, 465–466, 469, 471A–471B, 471–472, 473A–473B, 473–474, 475A–475B, 475–476, 477A–477B, 477–478, 483A–483B, 483–484, 487
	<ul style="list-style-type: none"> identifies the commutative property of addition (e.g., $2 + 7 = 9$, $7 + 2 = 9$) in solving problems and basic facts. 93A–93B, 93–94
	<ul style="list-style-type: none"> uses models, concrete materials, or algorithms to solve addition and subtraction problems with two-digit numbers without regrouping (sums to 100). 457J, 459A–459B, 459–460, 461A–461B, 461–462, 463A–463B, 463–464, 471A–471B, 471–472, 473A–473B, 473–474, 475A–475B, 475–476

Grade	TASK ANALYSIS
2	<p>The student...</p> <ul style="list-style-type: none"> solves addition problems using any strategy (e.g., counting on, number lines, concrete materials). 23A–23B, 23–24, 25A–25B, 25–26, 27A–27B, 27–28, 29A–29B, 29–30, 43A–43B, 43–44, 45A–45B, 45–46, 47A–47B, 47–48, 51A–51B, 51–52, 53A–53B, 53–54
	<ul style="list-style-type: none"> creates a number sentence that represents the commutative property of addition ($4 + 5 = 5 + 4$). 23A–23B, 23–24
	<ul style="list-style-type: none"> knows and applies the identity property (zero) for addition ($5 + 0 = 5$, $0 + 3 = 3$). <i>See Grade 1.</i>
	<ul style="list-style-type: none"> predicts the relative size of solutions in addition problems (the sum of $8 + 7$ will be in the range of 10 to 20). <i>These pages prepare students to meet this task.</i> 41I, 141A–141B, 141–142, 191A–191B, 191–192, 429A–429B, 429–430
	<ul style="list-style-type: none"> adds two–digit numbers with regrouping, using pictures and concrete materials. 175A–175B, 175–176, 177A–177B, 179–180, 193A–193B, 193–194
	<ul style="list-style-type: none"> adds two–digit numbers without regrouping, using an algorithm. 175A–175B, 175–176, 177A–177B, 179–180, 181A–181B, 181–182, 185A–185B, 185–186, 193A–193B, 193–194
	<ul style="list-style-type: none"> adds two–digit numbers with regrouping, using an algorithm. 175A–175B, 175–176, 177A–177B, 179–180, 181A–181B, 181–182, 185A–185B, 185–186, 193A–193B, 193–194
	<ul style="list-style-type: none"> uses estimation strategies to check if a solution is reasonable when solving addition problems. (MA.A. 4.1.1) 191A–191B, 191–192, 429A–429B, 429–430
	<ul style="list-style-type: none"> recalls from memory addition facts to 20. <i>These pages prepare students to meet this task.</i> 23A–23B, 23–24, 25A–25B, 25–26, 27A–27B, 27–28, 29A–29B, 29–30, 43A–43B, 43–44, 45A–45B, 45–46, 47A–47B, 47–48, 51A–51B, 51–52, 53A–53B, 53–54
	<ul style="list-style-type: none"> demonstrates multiplication as repeated addition, using manipulatives, drawings, and arrays. 469A–469B, 469–470, 471A–471B, 471–472
	<ul style="list-style-type: none"> recognizes multiplication as repeated addition in real-world problems. <i>These pages prepare students to meet this task.</i> 469A–469B, 469–470, 471A–471B, 471–472

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> solves subtraction problems using any strategy (e.g., number lines, concrete materials, counting on). 41I, 61A–61B, 61–62, 63A–63B, 63–64, 65A–65B, 65–66
	<ul style="list-style-type: none"> predicts the relative size of solution in subtraction problems (e.g., the difference of 20–7 will be in the range of 10 to 20). <i>These pages prepare students to meet this task.</i> 149A–149B, 149–150, 229A–229B, 229–230, 445A–445B, 445–446
	<ul style="list-style-type: none"> identifies a number sentence that represents the inverse operation of a given number sentence (e.g., $4 + 6 = 10$; $10 - 6 = 4$, fact families). 27A–27B, 27–28, 36, 227A–227B, 227–228
	<ul style="list-style-type: none"> subtracts two-digit numbers without regrouping, using concrete materials (base ten blocks) and pictures. 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215
	<ul style="list-style-type: none"> subtracts two-digit numbers with regrouping, using concrete materials and pictures. 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215
	<ul style="list-style-type: none"> subtracts two-digit numbers without regrouping, using an algorithm. 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215–216, 217A–217B, 217–218, 225A–225B, 225–226, 231A–231B, 231–232
	<ul style="list-style-type: none"> subtracts two-digit numbers with regrouping, using an algorithm. 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215–216, 217A–217B, 217–218, 225A–225B, 225–226, 231A–231B, 231–232
	<ul style="list-style-type: none"> uses estimation strategies to check if a solution is reasonable when solving subtraction problems. (MA.A. 4.1.1) 229A–229B, 229–230, 445A–445B, 445–446
	<ul style="list-style-type: none"> recalls subtraction facts with a minuend (the quantity from which another number is to be subtracted) no greater than 20. 27A–27B, 27–28, 61A–61B, 61–62, 63A–63B, 63–64, 65A–65B, 65–66, 67A–67B, 67–68
	<ul style="list-style-type: none"> demonstrates division as repeated subtraction, using manipulatives or drawings. 493

**Scott Foresman – Addison Wesley Mathematics
to the
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Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.3.1.2: The student selects the appropriate operation to solve specific problems involving addition and subtraction of whole numbers.

Grade	TASK ANALYSIS
	The student...
	PROBLEM SOLVING WITH ADDITION AND SUBTRACTION
K	<ul style="list-style-type: none"> • creates and acts out number stories, using objects. 245–246, 247–248, 249–250, 265–266, 279–280, 281–282 • explores a variety of strategies for solving number problems (e.g., pictures, tally marks, concrete materials). 223I, 223J, 223K, 223L, 225A–225B, 225–226, 227A–227B, 227–228, 229A–229B, 229–230, 231A–231B, 231–232, 233A–233B, 233–234, 235A–235B, 235–236, 237A–237B, 237–238, 239A–239B, 239–240, 243K, 243L, 245A–245B, 245–246, 247A–247B, 247–248, 249A–249B, 249–250, 251A–251B, 251–252, 253A–253B, 253–254, 255A–255B, 255–256, 257A–257B, 257–258, 259A–259B, 259–260, 263K, 263L, 265A–265B, 265–266, 267A–267B, 267–268, 271A–271B, 271–272, 273A–273B, 273–274, 275A–275B, 275–276, 277A–277B, 277–278, 279A–279B, 279–280, 281–281B, 281–282
1	<ul style="list-style-type: none"> • uses concrete objects to solve addition or subtraction number/story problems 43I, 43J, 45A–45B, 45–46, 57A–57B, 57–58, 59, 61A–61B, 61–62, 71A–71B, 71–72, 109–110, 111A–111B, 111–112, 115, 131A–131B, 131–132 • explains thinking when solving number/story problems. 43I, 43J, 45A–45B, 45–46, 57A–57B, 57–58, 59, 61A–61B, 61–62, 71A–71B, 71–72, 99A–99B, 99–100, 109–110, 111A–111B, 111–112, 113A–113B, 113–114, 115, 131–132, 133A–133B, 133–134, 143A–143B, 143–144, 145A–145B, 145–146, 445A–445B, 445–446, 447A–447B, 447–448, 449, 467A–467B, 467–468, 483A–483B, 483–484

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> formulates number sentences related to given addition and subtraction situations. 43I, 43J, 49A–49B, 49–50, 51A–51B, 51–52, 57A–57B, 57–58, 59, 65A–65B, 65–66, 67A–67B, 67–68, 71A–71B, 71–72, 77A–77B, 77–78, 94, 99A–99B, 99–100, 101, 103, 105, 120, 317A–317B, 317–318, 417A–417B, 417–418
	<ul style="list-style-type: none"> composes, solves, and explains number/story problems. 43I, 43J, 45A–45B, 45–46, 57A–57B, 57–58, 59, 61A–61B, 61–62, 71A–71B, 71–72, 99A–99B, 99–100, 109–110, 111A–111B, 111–112, 113A–113B, 113–114, 115, 131–132, 133A–133B, 133–134, 143A–143B, 143–144, 145A–145B, 145–146, 445A–445B, 445–446, 447A–447B, 447–448, 449, 467A–467B, 467–468, 483A–483B, 483–484
2	<ul style="list-style-type: none"> chooses appropriate operation to solve a problem. 161A–161B, 161–162, 221A–221B, 221–222, 233–234, 377A–377B, 377–378, 487A–487B, 487–488
	<ul style="list-style-type: none"> solves problems involving addition and subtraction, using a variety of strategies. 9A–9B, 9–10, 19A–19B, 19–20, 57A–57B, 57–58, 67A–67B, 67–68, 155A–155B, 155–156, 161A–161B, 161–162, 189A–189B, 189–190, 197A–197B, 197–198, 221A–221B, 221–222, 233A–233B, 233–234
	<ul style="list-style-type: none"> explains, orally and in writing, solution strategies. 9A–9B, 9–10, 19A–19B, 19–20, 57A–57B, 57–58, 67A–67B, 67–68, 155A–155B, 155–156, 161A–161B, 161–162, 189A–189B, 189–190, 197A–197B, 197–198, 221A–221B, 221–222, 233A–233B, 233–234
	<ul style="list-style-type: none"> determines and writes number sentences associated with addition and subtraction situations. 9A–9B, 9–10, 57A–57B, 57–58, 221A–221B, 221–222
	<ul style="list-style-type: none"> creates and demonstrates with manipulatives number stories representing multiplication and division situations. 479A–479B, 479–480, 485A–485B, 485–486

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Number Sense, Concepts, and Operations

Grade Cluster: K–2

Benchmark

MA.A.3.1.3: The student adds and subtracts whole numbers to solve real-world problems, using appropriate methods of computing, such as objects, mental mathematics, paper and pencil, calculator.

Grade	TASK ANALYSIS
	The student...
	REAL-WORLD PROBLEM SOLVING
K	<ul style="list-style-type: none"> demonstrates an awareness of addition and subtraction in everyday activities using concrete objects, models, drawings, and role playing. 239A–239B, 239–240, 249A–249B, 249–250, 259A–259B, 259–260, 279A–279B, 279–280, 281A–281B, 281–282
1	<ul style="list-style-type: none"> uses appropriate method (e.g., concrete objects, mental mathematics, paper and pencil) to solve real-world problems involving addition and subtraction. 43I, 43J, 45A–45B, 45–46, 57A–57B, 57–58, 59, 61A–61B, 61–62, 71A–71B, 71–72, 99A–99B, 99–100, 109–110, 111A–111B, 111–112, 113A–113B, 113–114, 115, 131–132, 133A–133B, 133–134, 143A–143B, 143–144, 145A–145B, 145–146, 445A–445B, 445–446, 447A–447B, 447–448, 449, 467A–467B, 467–468, 483A–483B, 483–484 explores addition, subtraction, and skip counting, using a calculator. 84, 118, 150, 274, 452, 488
2	<ul style="list-style-type: none"> selects appropriate method (e.g., concrete objects, mental mathematics, calculator, paper and pencil) to solve real-world problems involving addition and subtraction. 9A–9B, 9–10, 19A–19B, 19–20, 57A–57B, 57–58, 67A–67B, 67–68, 155A–155B, 155–156, 161A–161B, 161–162, 189A–189B, 189–190, 197A–197B, 197–198, 221A–221B, 221–222, 233A–233B, 233–234 chooses and explains the computing method that is most efficient for varied real-world tasks. 9A–9B, 9–10, 19A–19B, 19–20, 57A–57B, 57–58, 67A–67B, 67–68, 155A–155B, 155–156, 161A–161B, 161–162, 189A–189B, 189–190, 197A–197B, 197–198, 221A–221B, 221–222, 233A–233B, 233–234

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OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Number Sense, Concepts and Operations

Grade Cluster: K–2

Benchmark

MA.A.4.1.1: The student provides and justifies estimates for real-world quantities.

Grade	TASK ANALYSIS
	The student...
	ESTIMATION
K	<ul style="list-style-type: none"> • estimates the number in a set and verifies by counting. 119A–119B, 119–120
1	<ul style="list-style-type: none"> • uses estimation language (e.g., about, near, closer to, between) and approximation to identify and describe numbers in real-world situations. 206, 221A–221B, 221–222, 238, 249A–249B, 249–250 • justifies and verifies the reasonableness of an estimate by counting. 249A–249B, 249–250 • justifies reasonable estimates when comparing larger or smaller quantities. 78 • estimates reasonable answers to basic facts (e.g., will $9 + 3$ be more than 10?). <i>These pages prepare students to meet this task.</i> 18, 48, 62
2	<ul style="list-style-type: none"> • estimates quantities of objects to 50 or more. <i>See Grade 1.</i> • explains the strategy used to make the estimation. 191A–191B, 191–192, 229A–229B, 229–230 • estimates reasonable solutions for two-digit addition and subtraction problems and explains the strategy used. 141A–141B, 141–142, 149A–149B, 149–150, 191A–191B, 191–192, 229A–229B, 229–230 • identifies and explains reasonable and unreasonable estimates. 96, 150, 324, 328, 406

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Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: K–2

Benchmark

MA.A.5.1.1: The student classifies and models numbers as even or odd.

Grade	TASK ANALYSIS
The student...	
ODD AND EVEN NUMBERS	
K	<ul style="list-style-type: none"> • uses concrete objects to explore odd and even numbers to 10. 92
1	<ul style="list-style-type: none"> • uses concrete objects or drawings to build models that show the difference between odd and even numbers. 265A–265B, 265–266
2	<ul style="list-style-type: none"> • demonstrates and explains the difference between odd and even sets, using concrete objects and drawings. 101A–101B, 101
	<ul style="list-style-type: none"> • identifies and explains odd and even numbers. 101A–101B, 101–102

**Scott Foresman – Addison Wesley Mathematics
to the
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Subject Area: Mathematics
Strand: Measurement
Grade Cluster: K–2

Benchmarks

MA.B.1.1.1: The student uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.
MA.B.1.1.2: The student uses standard customary and metric (centimeter, inch) and nonstandard units, such as links or blocks, in measuring real quantities.
MA.B.2.1.1: The student uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (length, weight).
MA.B.2.1.2: The student understands the need for a uniform unit of measure to communicate in real-world situations.
MA.B.3.1.1: The student uses a variety of strategies, estimates length, widths, time intervals, and money and compares them to actual measurements.
MA.B.4.1.1: The student selects and uses an object to serve as a unit of measure, such as a paper clip, eraser, or marble.
MA.B.4.1.2: The student selects and uses appropriate instruments, such as scales, rulers, clocks, and technology to measure within customary or metric systems.

Grade	TASK ANALYSIS
	The student...
	LENGTH
K	<ul style="list-style-type: none"> • uses objects to demonstrate understanding of long, short, tall, and wide. 131I, 135A–135B, 135–136
	<ul style="list-style-type: none"> • locates the starting point and ending point of a measurement. 139A–139B, 139–140, 141A–141B, 141–142

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> arranges a given set of objects from shortest to longest, using side-by-side comparison. 131K, 135B, 137A–137B, 137–138
	<ul style="list-style-type: none"> knows nonstandard measuring tools must touch without gaps (e.g., paper clips, feet, hands, unifix cubes, inch cubes). 139A–139B, 139–140, 141A–141B, 141–142
	<ul style="list-style-type: none"> counts and records the length of objects, using nonstandard measurement. 139A–139B, 139–140, 141A–141B, 141–142
	<ul style="list-style-type: none"> compares lengths of objects that cannot be physically compared side-by-side, using nonstandard measuring tools (body, string, links). 139B, 141B
	<ul style="list-style-type: none"> demonstrates and understands that estimation is a judgment based on logical thinking by determining that an object is longer, shorter, taller, or wider than a given object. 141A–141B, 141–142
	<ul style="list-style-type: none"> estimates length and width of classroom objects and verifies the estimation by using nonstandard measuring tools. 131L, 141A–141B, 141–142
	<ul style="list-style-type: none"> explores standard units of measurement, using rulers. <i>See Grade 1.</i>
1	<ul style="list-style-type: none"> differentiates between nonstandard and standard units of measure. 365A–365B, 365–366, 367A–367B, 367–368, 3659A–369B, 369–370, 371A–371B, 371–372, 373A–373B, 373–374, 375A–375B, 375–376
	<ul style="list-style-type: none"> selects appropriate unit of measure (inch, foot, yard, centimeter, meter) and tool (tape measure, ruler, yardstick, meter stick). 373B, 374, 397A–397B, 397–398
	<ul style="list-style-type: none"> demonstrates ability to measure by using appropriate alignment of ruler and object. 371A–371B, 371–372, 375A–375B, 375–376
	<ul style="list-style-type: none"> reports and records measurement of an object using appropriate unit of measure (to the nearest inch or centimeter). 371A–371B, 371–372, 375A–375B, 375–376
	<ul style="list-style-type: none"> compares measured (nonstandard and standard) and non-measured objects, ordering them according to their length. 365B, 366, 373B, 375B

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> estimates length, using nonstandard and standard units of measure. 365A–365B, 365–366, 367A–367B, 367–368, 3659A–369B, 369–370, 371A–371B, 371–372, 373A–373B, 373–374, 375A–375B, 375–376
2	<ul style="list-style-type: none"> selects and measures objects, using nonstandard units and records. 341A–341B, 341–342
	<ul style="list-style-type: none"> explains the need for a uniform unit of measure in real-world situations. 341A, 341
	<ul style="list-style-type: none"> reads the scale of measurement on measurement tool (to the nearest $\frac{1}{2}$ inch, inch, foot, yard, centimeter, meter). 343–344, 345A–345B, 345–346, 347A–347B, 347–348
	<ul style="list-style-type: none"> measures and records lengths of objects using customary and metric units (inch, foot, centimeter, meter). 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348
	<ul style="list-style-type: none"> compares and orders objects according to their lengths, measured in customary and metric units. 341B, 342, 343B
	<ul style="list-style-type: none"> estimates distances, using nonstandard units. <i>These pages prepare students to meet this task.</i> 341A–341B, 341–342 <i>See also, Grade 3.</i>
	<ul style="list-style-type: none"> selects and uses an appropriate nonstandard unit for measuring distance (e.g., footsteps, strides, length of jump rope). <i>These pages prepare students to meet this task.</i> 341A–341B, 341–342 <i>See also, Grade 3.</i>
	<ul style="list-style-type: none"> selects and uses an appropriate standard unit for measuring distance. 347B <i>See also, Grade 3.</i>
	<ul style="list-style-type: none"> estimates distances in feet, yards, meters. <i>These pages prepare students to meet this task.</i> 345A–345B, 345–346, 347–348 <i>See also, Grade 3.</i>
	<ul style="list-style-type: none"> compares distances, using standard units. <i>These pages prepare students to meet this task.</i> 343A–343B, 345A–345B <i>See also, Grade 3.</i>

Grade	TASK ANALYSIS The student...
	WEIGHT
K	<ul style="list-style-type: none"> understands that a balance and a scale are tools to measure weight. 151A–151B, 151–152
	<ul style="list-style-type: none"> uses a balance to define terms such as heavy, light, equal to, or balanced. 151A–151B, 151–152
	<ul style="list-style-type: none"> compares weights of different objects, using a balance (heavier or lighter). 149A–149B, 149–150, 151A–151B, 151–152
	<ul style="list-style-type: none"> arranges a given set of objects from lightest to heaviest/heaviest to lightest, using a balance. 149A–149B
1	<ul style="list-style-type: none"> selects appropriate tool (balance or scale) to weigh a given object. 397A–397B, 397–398
	<ul style="list-style-type: none"> explores examples of grams, kilograms, ounces, and pounds. 391A–391B, 391–392, 393A–393B, 393–394
	<ul style="list-style-type: none"> demonstrates the ability to weigh an object on a scale, using nonstandard (e.g., paper clips, unifix cubes,) and standard units. 389A–389B, 391A–391B, 393B
	<ul style="list-style-type: none"> communicates weight of an object, using appropriate terms (grams, kilograms, ounces, pounds). 391A–391B, 391–392, 393A–393B, 393–394
	<ul style="list-style-type: none"> compares and orders the weight of objects, using nonstandard and standard units. 390, 391A–391B, 391–392, 393A–393B, 393–394
	<ul style="list-style-type: none"> estimates weight, using nonstandard and standard units. 389A–389B, 389–390, 391A–391B, 391–392, 393A–393B, 393–394
2	<ul style="list-style-type: none"> selects, measures, and records the weight of an object, using nonstandard units. 363B, 363
	<ul style="list-style-type: none"> compares and orders objects according to their weight, using nonstandard units. 363A–363B, 363–364
	<ul style="list-style-type: none"> explains the need for a uniform unit to measure weight in real-world situations. <i>These pages prepare students to meet this task.</i> 363a–363b, 363–364

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> weighs objects, using customary and metric units. 367A
	<ul style="list-style-type: none"> selects appropriate units of measurement. 365A–365B, 365–366, 367A–367B, 367–368
	<ul style="list-style-type: none"> reads and records measuring units (number scale) on a variety of scales. <i>These pages prepare students to meet this task.</i> 365A–365B, 365–366, 367A–367B, 367–368
	TIME
K	<ul style="list-style-type: none"> classifies events, objects, or symbols associated with day and night. 159K, 171A–171B, 171–172
	<ul style="list-style-type: none"> sequences events using pictures and verbal or written retellings (vocabulary to include morning, afternoon, evening, yesterday, today, and tomorrow). 159K, 163A–163B, 163–164, 169A–169B, 169–170, 171A–171B, 171–172
	<ul style="list-style-type: none"> compares two daily activities to determine which takes more or less time. 177A–177B, 177–178
	<ul style="list-style-type: none"> understands that a calendar is a tool used to measure days, weeks, and months. 161A–161B, 161–162, 163A–163B, 163–164, 165A–165B, 165–166, 167A–167B, 167–168
	<ul style="list-style-type: none"> finds a specific day of the week on the calendar. 167A–167B, 167
	<ul style="list-style-type: none"> understands that analog and digital clocks are tools used to measure time. 159J, 173A–173B, 173–174, 175A–175B, 175–176
	<ul style="list-style-type: none"> recognizes the placement of numerals on a clock. 173–174, 175–176
	<ul style="list-style-type: none"> labels a clock face with numerals. <i>These pages prepare students to label a clock face with numerals.</i> 173A–173B, 173–174, 175A–175B, 175–176 <i>See also, Grade 1.</i>
	<ul style="list-style-type: none"> identifies the hour hand on a clock. 173A–173B, 173–174, 175A–175B, 175–176
	<ul style="list-style-type: none"> identifies time to the hour on an analog or digital clock. 173A–173B, 173–174, 175A–175B, 175–176

Grade	TASK ANALYSIS The student...
1	<ul style="list-style-type: none"> • lists days of the week and months of the year in order. 225A–225B, 225–226, 227A–227B, 227–228
	<ul style="list-style-type: none"> • labels calendar with month, days of the week, and dates. 225A
	<ul style="list-style-type: none"> • locates a date on the calendar. 225A–225B, 227B
	<ul style="list-style-type: none"> • identifies the minute hand on a clock. 207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212
	<ul style="list-style-type: none"> • knows directional movement of hour and minute hands. 207A–207B, 207–208, 215A–215B, 215–216
	<ul style="list-style-type: none"> • counts by 5s. 255A–255B, 255–256, 257A–257B, 257–258, 269B, 269, 271, 274, 331–332, 335A–335B, 335–336, 337B, 337–338, 458
	<ul style="list-style-type: none"> • relates counting by 5s to five-minute intervals on a clock. <i>These pages prepare students to relate counting by 5s to five-minute intervals on a clock.</i> 207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215–216, 233 <i>See also, Grade 2.</i>
	<ul style="list-style-type: none"> • knows the position of hour and minute hands to show time on the hour and half-hour. 207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212, 213A–213B, 213–214, 215A–215B, 215–216, 233
	<ul style="list-style-type: none"> • observes time to the hour and half-hour shown on a digital clock and represents the same time on an analog clock. 209A–209B, 209–210
	<ul style="list-style-type: none"> • reads analog and digital time to the hour and half-hour. 207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212, 215A–215B, 215–216
	<ul style="list-style-type: none"> • writes analog and digital time to the hour and half-hour. 207A–207B, 207–208, 209A–209B, 209–210, 211A–211B, 211–212, 213, 215A–215B, 215–216, 233
	<ul style="list-style-type: none"> • estimates, selects the appropriate instrument (calendar, clock), and measures the passage of time, using before or after; yesterday, today, or tomorrow; day or night; morning, afternoon, or evening; hour or half-hour. 213–214, 215A–215B, 215–216, 219A–219B, 219–220, 221A–221B, 221–222, 225A–225B, 225–226, 227A–227B, 227–228, 234

Grade	TASK ANALYSIS
2	<p>The student...</p> <ul style="list-style-type: none"> explains the need for a uniform unit of measure in real-world situations. <i>These pages prepare students to meet this task.</i> 297A–297B, 297–298, 301A–301B, 301–302, 303A–303B, 303–304, 305A–305B, 305–306
	<ul style="list-style-type: none"> estimates how long a task, will take, using minutes, half-hour, and hour. 297A–297B, 297–298
	<ul style="list-style-type: none"> compares estimated time to actual time used to complete a task. <i>These pages prepare students to meet this task.</i> 297A–297B, 297–298
	<ul style="list-style-type: none"> knows the position of the hour and minute hands to show time to $\frac{1}{4}$ hour (15 minute intervals). 293A–293B, 293–294, 295A–295B, 295–296
	<ul style="list-style-type: none"> reads analog and digital time to $\frac{1}{4}$ hour. 293A–293B, 293–294, 295A–295B, 295–296
	<ul style="list-style-type: none"> writes analog and digital time to $\frac{1}{4}$ hour. 293A–293B, 293–294, 295A–295B, 295–296
	<ul style="list-style-type: none"> Uses terms “quarter after,” “half past,” “quarter to.” 293A–293B, 293–294, 295A–295B, 295–296
	<ul style="list-style-type: none"> knows the position of the hour and minute hands to show time to five-minute intervals. 291A–291B, 291–292
	<ul style="list-style-type: none"> reads analog and digital time to five-minute intervals. 291A–291B, 291–292
	<ul style="list-style-type: none"> determines one hour before and one hour after any hour on a clock. 299A, 300
	<ul style="list-style-type: none"> locates a date and identifies the day of the week on a calendar. 303A–303B, 303–304
TEMPERATURE	
K	<ul style="list-style-type: none"> understands concepts of hot and cold by touch. 153B
	<ul style="list-style-type: none"> recognizes that a thermometer measures temperature. 153A–153B, 153–154
	<ul style="list-style-type: none"> indicates that a long line of red on a thermometer denotes hot and a short line denotes cold. 153A–153B, 153–154

Grade	TASK ANALYSIS The student...
1	<ul style="list-style-type: none"> reads temperature to the nearest number, expressed in degrees on a thermometer. 395A–395B, 395–396
	<ul style="list-style-type: none"> investigates various types of thermometers (digital, non-digital). 395A–395B, 395–396
2	<ul style="list-style-type: none"> identifies a Fahrenheit thermometer and a Celsius thermometer. 369A–369B, 369–370
	<ul style="list-style-type: none"> uses a Fahrenheit thermometer to measure temperature to the nearest number, expressed in degrees. 369A–369B, 369–370
	<ul style="list-style-type: none"> uses a Celsius thermometer to measure temperature to the nearest number, expressed in degrees. 369A–369B, 369–370
CAPACITY	
K	<ul style="list-style-type: none"> uses containers to demonstrate full, empty, more than, less than, or equal. 145A–145B, 145–146, 155A–155B
	<ul style="list-style-type: none"> explores how the same amount of matter (liquid or solid) looks in various shaped containers. 155A–155B
1	<ul style="list-style-type: none"> differentiates between standard (e.g., ounce, cup, pint, quart) and nonstandard (e.g., scoops, handfuls) measurements of capacity. 383A–383B, 383–384, 385A–385B, 385–386, 387A–387B, 387–388
	<ul style="list-style-type: none"> matches appropriate measuring tool to the task. 397A–397B, 397–398
	<ul style="list-style-type: none"> applies appropriate measuring strategies to material (e.g., measure liquid on level surface: fill to line; dry measure: fill to top and level off). 383A–383B, 383–384, 385A–385B, 385–386, 387A–387B, 387–388
2	<ul style="list-style-type: none"> understands that ounces, cups, pints, quarts, gallons, milliliters, and liters, are units used to measure capacity. 355A–355B, 355–356, 357A–357B, 357–358
	<ul style="list-style-type: none"> determines whether the capacity of an object is closer to ounces, cups, pints, quarts, gallons, milliliters, or liters. 357A–357B, 357–358
	<ul style="list-style-type: none"> communicates orally and in writing the capacity of an object, using ounces, cups, pints, quarts, gallons, milliliters, or liters. 355A–355B, 355–356, 357A–357B, 357–358

Grade	TASK ANALYSIS
	The student...
	MONEY
K	<ul style="list-style-type: none"> identifies coins by name (penny, nickel, dime, and quarter). 159K, 179A–179B, 179–180, 181A–181B, 181–182, 183A–183B, 183–184, 185A–185B, 185–186, 187A–187B, 187–188
	<ul style="list-style-type: none"> knows the value of a penny (1¢), nickel (5¢), dime (10¢), and quarter (25¢). 159K, 179A–179B, 179–180, 181A–181B, 181–182, 183A–183B, 183–184, 185A–185B, 185–186, 187A–187B, 187–188
	<ul style="list-style-type: none"> compares the value of a penny (1¢), nickel (5¢), dime (10¢), and quarter (25¢). 159L, 189A–189B, 189–190
1	<ul style="list-style-type: none"> identifies penny, nickel, dime, quarter, and half-dollar. 331A–331B, 331–332, 333A–333B, 333–334, 335A–335B, 335–336, 337A–337B, 337–338, 339A–339B, 339–340, 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 353B, 353, 357, 358, 359, 360, 484
	<ul style="list-style-type: none"> knows the value of penny (1¢), nickel (5¢), dime (10¢), quarter (25¢), and half-dollar (50¢). 331A–331B, 331–332, 333A–333B, 333–334, 335A–335B, 335–336, 337A–337B, 337–338, 339A–339B, 339–340, 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 353B, 353, 357, 358, 359, 360, 484
	<ul style="list-style-type: none"> compares the values of a penny, nickel, dime, quarter, and half-dollar. 331A–331B, 331–332, 333A–333B, 333–334, 335A–335B, 335–336, 337A–337B, 337–338, 339A–339B, 339–340, 343A–343B, 343–344, 345A–345B, 345–346, 347A–347B, 347–348, 353B, 353, 357, 358, 359, 360, 484
	<ul style="list-style-type: none"> counts and trades coins to 25¢. 331A–331B, 331–332, 343A–343B, 343–345
2	<ul style="list-style-type: none"> counts to 100 by 5s, 10s, and 25s. 99A–99B, 99–100
	<ul style="list-style-type: none"> identifies a dollar bill and a dollar coin. 121A–121B, 121–122
	<ul style="list-style-type: none"> counts groups of like coins to \$1.00. 109B
	<ul style="list-style-type: none"> counts groups of mixed coins to \$1.00. 79J, 109A–109B, 109–110, 111A–111B, 111–112, 113A–113B, 113–114, 115A–115B, 115–116, 117A–117B, 117–118
	<ul style="list-style-type: none"> counts on to make change to \$1.00. 119A–119B, 119–120

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Geometry and Spatial Sense

Grade Cluster: K–2

Benchmarks

<p>MA.C.1.1.1: The student understands and describes the characteristics of basic two- and three-dimensional shapes.</p> <p>MA.C.3.1.1: The student uses real-life experiences and physical materials to describe, classify, compare, and sort geometric figures, including squares, rectangles, triangles, circles, cubes, rectangular solids, spheres, pyramids, cylinders, and prisms, according to the number of faces, edges, bases, and corners.</p>
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Grade	TASK ANALYSIS
The student...	
	GEOMETRIC FIGURES
K	<ul style="list-style-type: none"> • identifies two-dimensional shapes as circles, triangles, squares, or rectangles. 195K, 203A–203B, 203–204, 205A–205B, 205–206 • describes similarities and differences between two-dimensional shapes (number of sides, straight lines, curves, number of corners). 203A–203B, 203–204, 205A–205B, 205–206 • explores three-dimensional objects (cylinders, spheres, cones, cubes, or pyramids) to determine which can roll, stack, or slide. 199A–199B, 199–200 • sorts two-dimensional and three-dimensional objects according to geometric shapes. 195K, 203B • recognizes two-dimensional and three-dimensional real-world objects. 195K, 197B, 197–198, 199–200
1	<ul style="list-style-type: none"> • identifies two-dimensional shapes: circle, square, triangle, rectangle, oval, rhombus (diamond). 155I, 165A–165B, 165–166

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> identifies and classifies by name three-dimensional shapes (cone, cube, cylinder, sphere, pyramid, rectangular prism) as being capable of rolling, stacking, or sliding. <p>157A–157B, 157–158, 159A–159B, 159–160</p>
	<ul style="list-style-type: none"> sorts two-dimensional and three-dimensional real-world objects. <p>157A, 165A–165B, 167A–167B</p>
	<ul style="list-style-type: none"> identifies components of two-dimensional and three-dimensional geometric figures (e.g., edges, bases, curves, corners/vertices, sides, faces). <p>155I, 159A–159B, 159–160, 161A–161B, 161–162, 163, 167A–167B, 167–168, 179, 180, 232</p>
2	<ul style="list-style-type: none"> describes attributes of two-dimensional shapes, using mathematical language (curves, sides, angles). <p>255A–255B, 255–256, 265A–265B, 265–266</p>
	<ul style="list-style-type: none"> classifies and compares two-dimensional figures according to their attributes. <p>255A–255B, 255–256, 265A–265B, 265–266</p>
	<ul style="list-style-type: none"> observes two-dimensional real-world objects and classifies them by name according to their attributes (e.g., flag is a rectangle). <p><i>These pages prepare students to meet this task.</i></p> <p>255A–255B, 255–256, 265A–265B, 265–266</p>
	<ul style="list-style-type: none"> describes attributes of three-dimensional shapes, using mathematical language (bases, faces, vertices, edges, curves). <p>247A–247B, 247–248</p>
	<ul style="list-style-type: none"> classifies and compares three-dimensional figures according to their attributes. <p>247A–247B, 247–248, 251A–251B, 251–252</p>
	<ul style="list-style-type: none"> observes three-dimensional real-world objects and classifies them by name according to their attributes (e.g., can is a cylinder). <p><i>These pages feature photographs of real-world objects and prepare students to classify them.</i></p> <p>247B, 247–248</p>
	<ul style="list-style-type: none"> compares and contrasts two-dimensional and three-dimensional real world objects (square and cube, circle and sphere, triangle and pyramid, rectangle and rectangular solid/prism). <p>249A–249B, 249–250</p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Geometry and Spatial Sense

Grade Cluster: K–2

Benchmark

MA.C.2.1.1: The student understands basic concepts of spatial relationships, symmetry, and reflections.

Grade	TASK ANALYSIS
The student...	
	SPATIAL RELATIONSHIPS
K	<ul style="list-style-type: none"> • matches objects to outlines of their shapes. <i>These pages provide opportunities for students to apply this task.</i> 209A–209B, 209–210 • identifies pictures or objects that are identical. <i>See Grade 1.</i> • uses concrete materials to make symmetrical figures (e.g., folds paper, observes paint blots, matches corresponding halves of objects or pictures). 211A–211B, 211–212 • recognizes symmetry in the environment. 212 • uses manipulatives to demonstrate understanding of spatial relationships (in, out, above, below, top, bottom, middle). 1K, 3A–3B, 5A–5B, 7A–7B • identifies left and right hand. 9A–9B, 9–10
1	<ul style="list-style-type: none"> • identifies figures divided symmetrically. 171A–171B, 171–172, 183–184 • draws lines of symmetry. 172, 179, 184 • uses concrete materials to construct the reflection of a given shape. 173A–173B, 173, 198 • knows that congruent figures have the same size and shape. 169A–169B, 169–170 • identifies congruent figures. 169A–169B, 169–170

Grade	TASK ANALYSIS The student...
2	<ul style="list-style-type: none"> • describes and justifies symmetry in two-dimensional shapes. 261A–261B, 261–262
	<ul style="list-style-type: none"> • determines lines of symmetry of two-dimensional shapes. 261A–261B, 261–262
	<ul style="list-style-type: none"> • identifies two figures as being the same size and shape regardless of position. 257A–257B, 257–258
	<ul style="list-style-type: none"> • explains how two figures are congruent (same size and shape). 257A–257B, 257–258
	<ul style="list-style-type: none"> • identifies shapes that can be combined or separated (e.g., a rectangle can be separated into two triangles). 255A–255B, 255–256
	<ul style="list-style-type: none"> • predicts, records, and justifies the reflection of a simple two-dimensional shape. 259A–259B, 259–260

**Scott Foresman – Addison Wesley Mathematics
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OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Geometry and Spatial Sense

Grade Cluster: K–2

Benchmark

MA.C.2.1.2: The student uses objects to perform geometric transformations, including flips, slides, and turns.

Grade	TASK ANALYSIS
The student...	
	TRANSFORMATIONS
K	<ul style="list-style-type: none"> • follows directions to move or place an object in relation to another (e.g., next to, to the right of). 1K, 1L, 5A–5B, 5–6, 7A–7B, 7–8, 9A–9B, 9–10 • explores slides, flips, and turns, using two-dimensional and three-dimensional concrete objects. 195J, 207A–207B, 207–208
1	<ul style="list-style-type: none"> • demonstrates slides, flips, and turns through manipulation of two-dimensional and three-dimensional objects. 173A–173B, 173–174, 198
2	<ul style="list-style-type: none"> • demonstrates and differentiates slides, flips, and turns of figures, using concrete materials. 259A–259B, 259–260

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Geometry and Spatial Sense
Grade Cluster: K–2

Benchmark

MA.C.3.1.2: The student plots and identifies positive whole numbers on a number line.
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Grade	TASK ANALYSIS
	NUMBER LINES AND GRIDS
K	<ul style="list-style-type: none"> • locates known and unknown numbers on a number line from 0 to 10 (e.g., find what number you are on if you move two numbers forward or three numbers backward). 91A–91B, 91–92, 113A, 113–114
1	<ul style="list-style-type: none"> • locates and explains known and unknown numbers on a number line from 0 to 100 or more. 299A–299B, 299–300, 323
2	<ul style="list-style-type: none"> • locates and explains written numbers 0 to 1000 or more on a number line. 419
	<ul style="list-style-type: none"> • names and explains unknown numbers 0 to 1000 or more marked on a number line. 419
	<ul style="list-style-type: none"> • relates a vertical number line (to 10) to a horizontal number line (to 10). <i>These pages prepare students to meet this task.</i> 325A–325B, 325–326
	<ul style="list-style-type: none"> • identifies the location of an object on a 5x5 coordinate grid by moving over/horizontally and, then, up/vertically. 325A–325B, 325–326

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Algebraic Thinking
Grade Cluster: K–2

Benchmarks

<p>MA.D.1.1.1: The student describes a wide variety of classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, similar events.</p> <p>MA.D.1.1.2: The student recognizes, extends, generalizes, and creates a wide variety of patterns and relationships using symbols and objects.</p>
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Grade	TASK ANALYSIS
	The student...
	PATTERNS
K	<ul style="list-style-type: none"> • sorts and classifies objects by color, shape, size, or kind. 1I, 1J, 13A–13B, 13–14, 15A–15B, 15–16, 17A–17B, 17–18, 19A–19B, 19–20 • identifies objects that do not belong to a particular group (e.g., blue lid in set of red lids). 11A–11B, 12, 13A, 15B, 19B • identifies and extends simple patterns of sounds, physical movement, and concrete objects. 25J, 25L, 35A–35B, 35–36, 37A–37B, 37–38, 39A–39B, 39–40 • creates a pattern using sounds, physical movement, and concrete objects. 25J, 25L, 35A–35B, 35–36, 37A–37B, 39A–39B • transfers patterns from one medium to another (e.g., actions or sounds to concrete objects or written form). 41A–41B, 41–42, 43A–43B, 43–44, 45–46 • identifies matching patterns made from concrete objects. 41A–41B, 41–42 • uses skip counting to complete a number pattern. 293A–293B, 293–294, 297A–297B, 297–298 • identifies a missing element in a number pattern up to 10. 113

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> identifies the position of a missing element in a number pattern up to 10. 113
1	<ul style="list-style-type: none"> creates a pattern with one attribute (e.g., thick or thin, large or small). 1A, 3B, 5A–5B, 5–6
	<ul style="list-style-type: none"> predicts and extends existing patterns that are concrete or pictorial. 1A, 3A–3B, 3–4, 6, 7A–7B, 7–8, 33A–33B, 33–34, 37, 41, 74, 166, 194
	<ul style="list-style-type: none"> describes a pattern rule. 1A, 5A–5B, 5–6
	<ul style="list-style-type: none"> describes and compares patterns, which have been presented, using a wide variety of materials and attributes (e.g., size, color, shape). 1A, 5A–5B, 5–6
	<ul style="list-style-type: none"> transfers patterns from one medium to another (e.g., concrete object to actions or symbols). 1A, 5A
	<ul style="list-style-type: none"> explores number patterns, using a hundred chart and calculator. 255A–255B, 255–256, 273, 274
	<ul style="list-style-type: none"> locates patterns of 2s, 5s, and 10s on hundred charts. 255A–255B, 255–256, 273
	<ul style="list-style-type: none"> identifies and generates patterns in a list of related number pairs based on real-life situations (e.g., T-chart with number of children to number of eyes). 259–260, 261A–261B, 261–262
2	<ul style="list-style-type: none"> predicts, extends, and creates patterns with two or more attributes that are concrete or pictorial. <i>See Grade 1.</i>
	<ul style="list-style-type: none"> transfers patterns with two or more attributes from one medium to another. <i>See Grade 1.</i>
	<ul style="list-style-type: none"> uses oral and written language to describe a given pattern and explain its rule. 157A–157B, 157–158, 413A–413B, 413–414
	<ul style="list-style-type: none"> uses oral and written language to explain that a pattern is a result of repeating an operation (+ 3, + 3, + 3), using a transformation (turning or flipping an object), or making a change to an attribute (changing color or thickness of object). 99A–99B, 99–100, 157A–157B, 157–158, 259–260, 413A–413B, 413–414

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> • identifies patterns in the real world (e.g., tessellation, patchwork). 157B, 413B
	<ul style="list-style-type: none"> • applies concept of patterns to real-world situations (e.g., spelling patterns, schedules). <i>These pages prepare students to meet this task.</i> 306, 309
	<ul style="list-style-type: none"> • predicts, extends, and creates numerical patterns. 99A–99B, 99–100, 157A–157B, 157–158, 411, 413A–413B, 413–414, 420

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics

Strand: Algebraic Thinking

Grade Cluster: K–2

Benchmarks

MA.D.2.1.1: The student understands that geometric symbols ($O, \bar{1}$) can be used to represent unknown quantities in expressions, equations, and inequalities.

MA.D.2.1.2: The student uses informal methods to solve real-world problems requiring simple equations that contain one variable.

Grade	TASK ANALYSIS
The student...	
SYMBOLIC EXPRESSIONS, INEQUALITIES, AND PROBLEM SOLVING	
K	<ul style="list-style-type: none"> uses informal methods (e.g., pictures, concrete materials, and role playing) to solve real-world problems. 125A–125B, 125–126, 143A–143B, 143–144, 185A–185B, 185–186, 217A–217B, 217–218, 249A–249B, 249–250 uses one-to-one matching to determine if two groups are equal. 63A–63B, 63–64, 87A–87B, 87–88 substitutes numeral to replace symbol used to represent missing or unknown quantities (e.g., fill in the missing number in 5, 6, □, 8). 91A–91B, 91–92, 113A–113B, 113–114, 124, 168
1	<ul style="list-style-type: none"> uses concrete objects to solve real-world addition and subtraction problems with one unknown (e.g., there are 28 children in the class and 25 are here today, how many are absent?). 113B, 113–114, 145B, 145–146, 445B, 445–446, 447B, 447–448, 483B, 483–484 knows that an equation is a number sentence stating that two quantities are equal. <i>Many lessons provide opportunities for students to meet this task. These are a few of the many examples.</i> 49A–49B, 49–50, 51A–51B, 51–52, 57A–57B, 57–58, 59, 65A–65B, 65–66, 67A–67B, 67–68, 71A–71B, 71–72, 77A–77B, 77–78, 79A–79B, 79–80, 81, 97A–97B, 97–98, 99A–99B, 99–100, 103A–103B, 103–104, 105A–105B, 105–106, 107A–107B, 107–108

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> uses concrete objects to solve number sentences with equalities and inequalities, using the symbols $>$, $=$, $<$. 49A–49B, 49–50, 51A–51B, 51–52, 57A–57B, 57–58, 59, 65A–65B, 65–66, 67A–67B, 67–68, 71A–71B, 71–72, 77A–77B, 77–78, 79A–79B, 81, 101, 103A–103B, 103, 105A–105B, 105, 107A–107B, 107, 109, 110, 111A–111B, 111–112, 114, 115, 120, 218, 415J, 417A–417B, 417–418, 449, 459A, 459–460, 461B, 462, 469, 471A–471B, 471–472, 473A–473B, 473–474
	<ul style="list-style-type: none"> solves addition and subtraction sentences where an unknown number is represented by a geometric shape ($2 + \square = 9$). 83
2	<ul style="list-style-type: none"> solves a variety of number sentences where the missing number is represented by a geometric shape (O, \square). 199A–199B, 199–200, 221A–221B, 221–222, 479A–479B, 479–480, 485A–485B, 485–486, 489A–489B, 489–490
	<ul style="list-style-type: none"> solves a variety of number sentences with equalities and inequalities ($>$, $=$, $<$). 199A–199B, 199–200, 221A–221B, 221–222, 479A–479B, 479–480, 485A–485B, 485–486, 489A–489B, 489–490
	<p>solves real-world problems with one unknown using concrete objects, paper and pencil, calculator, or mental mathematics. 199A–199B, 199–200, 221A–221B, 221–222, 479A–479B, 479–480, 485A–485B, 485–486, 489A–489B, 489–490</p>
	<p>solves word problems using concrete materials. 199B, 479A–479B, 479–480, 485A–485B, 485–486, 487</p>
	<ul style="list-style-type: none"> uses oral and written language to explain strategies used to solve problems. 197A–197B, 197–198, 221A–221B, 221–222, 479A–479B, 479–480, 487

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis and Probability
Grade Cluster: K–2

Benchmark

MA.E.1.1.1: The student displays solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts.

Grade	TASK ANALYSIS
	DATA ANALYSIS
K	<ul style="list-style-type: none"> • displays answers to simple questions involving two categories or choices using concrete materials or pictures on a graph or chart (e.g., number of boys and girls, students with/without buttons). 25K, 29A–29B, 29–30, 31A–31B, 31–32, 33A–33B, 33–34 • interprets data exhibited in concrete or pictorial graphs. 25K, 29A–29B, 29–30, 31A–31B, 31–32, 33A–33B, 33–34
1	<ul style="list-style-type: none"> • surveys a small group to collect data involving two categories or choices (e.g., students who are left-handed or right-handed). 309A–309B, 309–310, 311A–311B, 311–312 • records data using concrete materials or pictures. 307A–307B, 307–308, 309A–309B, 309–310, 311A–311B, 311–312, 313A–313B, 313–314 • uses data to construct a simple pictograph or concrete graph. 309A–309B, 309–310, 311A–311B, 311–312

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> • uses mathematical language to read and interpret data on a simple concrete graph, pictograph, or chart. 307A–307B, 307–308, 309A–309B, 309–310, 311A–311B, 311–312, 313A–313B, 313–314
2	<ul style="list-style-type: none"> • poses questions and collects data to answer questions with two or more categories or choices. 313A, 313, 319A, 319, 321A, 322
	<ul style="list-style-type: none"> • records data using pictures, concrete materials, or tally marks. 311A–311B, 311–312, 313A–313B, 313–314, 319A–319B, 319–320, 321A–321B, 321–322, 323A–323B, 323–324, 327A–327B, 327–328
	<ul style="list-style-type: none"> • organizes survey information into a simple pictograph, concrete graph, or chart. 319A–319B, 319, 321A–321B, 322
	<ul style="list-style-type: none"> • uses mathematical language to read and interpret data on a concrete graph, pictograph, or chart. 311A–311B, 311–312, 313A–313B, 313–314, 319A–319B, 319–320, 321A–321B, 321–322, 323A–323B, 323–324, 327A–327B, 327–328, 405A–405B, 405–406

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis and Probability
Grade Cluster: K–2

Benchmark

MA.E.1.1.2: The student displays data in a simple model to use the concepts of range, median, and mode.

Grade	TASK ANALYSIS
	The student...
	RANGE, MEDIAN, AND MODE
K	<ul style="list-style-type: none"> • with teacher direction, displays data using concrete materials, pictures, or graphs to show range (lowest to highest or least to most) and mode (most repeated response). <p>25K, 29A–29B, 29–30, 31A–31B, 31–32, 33A–33B, 33–34, 67A–67B, 67–68</p>
1	<ul style="list-style-type: none"> • uses concrete materials, pictures, or graphs to display data and identify range (lowest to highest or least to most) and mode (most repeated response). <p>307A–307B, 307–308, 309A–309B, 309–310, 311A–311B, 311–312, 313A–313B, 313–314</p>
2	<ul style="list-style-type: none"> • identifies range (lowest to highest or least to most), mode (most repeated response), and median (middle number), using concrete materials, pictures, or graphs. <p>311A–311B, 312, 313A–313B, 313–314, 319A–319B, 319–320, 321A–321B, 321–322, 323A–323B, 323–324, 328, 333</p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis and Probability
Grade Cluster: K–2

Benchmark

MA.E.1.1.3: The student analyzes real-world data by surveying a sample space and predicting the generalization onto a larger population through the use of appropriate technology, including calculators and computers.

Grade	TASK ANALYSIS
The student...	
DATA ANALYSIS AND TECHNOLOGY	
K	<ul style="list-style-type: none"> • makes generalizations from class-collected data (e.g., determines number of pockets on 2 children; predicts how many pockets 4 students will have). <p>25K, 33A–33B, 33–34</p>
1	<ul style="list-style-type: none"> • using data from a small group, discusses a reasonable prediction for a larger group. <p>313</p>
	<ul style="list-style-type: none"> • compares graphing data using appropriate technology. <p>324</p>
2	<ul style="list-style-type: none"> • predicts the outcome for a larger population by analyzing data from a smaller group. <p><i>These pages prepare students to meet this task.</i> 313A–313B, 313–314, 319A–319B, 319–320, 321A–321B, 405A–405B, 405–406</p>
	<ul style="list-style-type: none"> • uses a calculator to compare data. <p><i>These pages prepare students to meet this task.</i> 311A–311B, 311–312, 313A–313B, 313–314, 319A–319B, 319–320, 321A–321B, 321–322, 323A–323B, 323–324, 327A–327B, 327–328, 405A–405B, 405–406</p>
	<ul style="list-style-type: none"> • constructs a graph, using computer software. <p><i>See Grade 3.</i></p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis and Probability
Grade Cluster: K–2

Benchmarks

- MA.E. 2.1.1:** The student understands basic concepts of chance and probability.
- MA.E. 2.1.2:** The student predicts which simple event is more likely, equally likely, or less likely to occur.

Grade	TASK ANALYSIS
	The student...
	PROBABILITY
K	<ul style="list-style-type: none"> • knows if a given event is more likely, or less likely to occur (e.g., could a lion come visit you, will we have school today?). 125A–125B, 125–126 • knows if a given event is more likely, less likely, or equally likely to occur (e.g., will we have chicken nuggets or pizza for lunch today?). 125A–125B, 125–126 • participates in games or activities dependent upon chance (e.g., using spinners or number cubes). 125A–125B, 125–126
1	<ul style="list-style-type: none"> • discusses if a given event is more likely, equally likely, or less likely to occur. 363J, 364, 403A–403B, 403–404
2	<ul style="list-style-type: none"> • tells if an event is certain or impossible. 375A–375B, 375–376 • records results of activities involving chance and makes predictions based upon data (coin flips, spinners). 339J, 373A–373B, 373–374, 375A–375B, 375–376 • predicts if a given event is equally likely, most likely, or least likely to occur (e.g., 1 green, 5 blue, and 8 red tiles in a bag). 339J, 373A–373B, 373–374

**Scott Foresman – Addison Wesley Mathematics
to the**

OCPS Curriculum, Instruction, Assessment Alignment

Subject Area: Mathematics

Strand: Data Analysis and Probability

Grade Cluster: K–2

Benchmarks

MA.E.3.1.1: The student designs a simple experiment to answer a class question, collects appropriate information, and interprets the results using graphical displays of information, such as line graphs, pictographs, and charts.

MA.E.3.1.2: The student decides what information is appropriate and how data can be collected, displayed, and interpreted to answer relevant questions.

Grade	TASK ANALYSIS
The student...	
	COLLECTING, DISPLAYING AND INTERPRETING DATA
K	<ul style="list-style-type: none"> determines, through class discussions, questions for a simple two-choice survey. 29A, 33A–33B, 33–34 displays information concretely or pictorially. 25K, 29A–29B, 29–30, 31A–31B, 31–32, 33A–33B, 33–34, 67A–67B, 67–68
1	<ul style="list-style-type: none"> formulates appropriate questions to conduct a class survey with two or more categories or choices. 309A–309B, 309–310, 311A–311B, 311–312 collects, graphically displays, and interprets resulting data (tally charts, pictographs, bar graphs, and tables). 309A–309B, 309–310, 311A–311B, 311–312, 313A–313B, 313–314
2	<ul style="list-style-type: none"> constructs appropriate questions for a survey with two or more categories or choices. 313A, 313 collects data for two or more categories and creates a line graph, pictograph, bar graph, or chart. 319A–319B, 319, 321A–321B, 322 selects appropriate methods to display and interpret information. 319A–319B, 321A–321B, analyzes and explains, orally or in writing, the results of a survey. 313A, 313, 316, 319A–319B, 319, 321A, 322

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment
GRADES 3 – 5**

Subject Area: Mathematics
Strand: Number Sense, Concepts, and Operations
Grade Cluster: 3–5

Benchmarks

MA.A.1.2.1: The student names whole numbers combining 3-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.

MA.A.1.2.2: The student understands the relative size of whole numbers, commonly used fractions, decimals, and percents.

MA.A.1.2.3: The student understands concrete and symbolic representations of whole numbers, fractions, decimals, and percents in real-world situations.

MA.A.1.2.4: The student understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents.

MA.A.2.2.1: The student uses place-value concepts of grouping based upon powers of ten (thousandths, hundredths, tenths, ones, tens, hundreds, thousands) within the decimal system.

MA.A.2.2.2: The student recognizes and compares the decimal number system to the structure of other number systems such as the Roman numeral system or bases other than ten.

MA.A.3.2.1: The student understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.

MA.A.3.2.2: The student selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.

MA.A.3.2.3: The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

MA.A.4.2.1: The student uses and justifies different estimation strategies in a real-world problem situation and determines the reasonableness of results of calculations in a given problem situation.

MA.A.5.2.1: The student understands and applies basic number theory concepts, including primes, composites, factors, and multiples.

MA.D.2.2.2: The student uses informal methods, such as physical models and graphs, to solve real-world problems involving equations and inequalities.

Grade	TASK ANALYSIS
The student...	
	WHOLE NUMBERS AND ESTIMATION
3	<ul style="list-style-type: none"> • reads, writes, and identifies numbers through at least 100,000. 2I, 6A–6B, 6–7, 8A–8B, 8–9, 10A–10B, 10–11, 12A–12B, 12–13 • uses language and symbols (>, <, =) to compare the relative size of numbers through at least 100,000. 18A–18B, 18–21 • compares and orders whole numbers through at least hundred thousands using materials (e.g., base ten blocks, number lines, drawings, numerals). 8A–18B, 18–21, 22A–22B, 22–23 • translates real-world problems into diagrams and models, using whole numbers. 140A–140B, 140–143, 270A–270B, 270–273 • demonstrates understanding of the value of a number through expanded form (e.g., 439 = 400 + 30 + 9). 6A–6B, 6–7, 8A–8B, 8–9, 10A–10B, 10–11, 12A–12B, 12–13 • identifies the place value of digits in the thousands, ten thousand, and hundred thousands place. 6A–6B, 6–7, 8A–8B, 8–9, 10A–10B, 10–11, 12A–12B, 12–13 • adds and subtracts (up to three digits or more) using concrete materials, drawings, symbols, and algorithms. 66A–66B, 66–67, 70A–70B, 70–71, 76A–76B, 76–77, 80A–80B, 80–81, 82A–82B, 82–83, 94A–94B, 94–95, 126A–126B, 126–127, 128A–128B, 128–131, 132A–132B, 132–135, 136A–136B, 136–137, 146A–146B, 146–147 • demonstrates the inverse relationship of addition and subtraction by writing related fact families. 70A–70B, 70–71

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> • writes number sentences for given situations and story problems involving the addition, subtraction, multiplication, and division of whole numbers. 76A–76B, 76–77
	<ul style="list-style-type: none"> • uses tables, charts, and patterns (e.g., hundreds chart, calendar) to determine multiples of whole numbers 1–10. 258J, 276A–276B, 276–278, 280A–280B, 280–281, 282A–282B, 282–283, 286A–286B, 286–287, 288A–288B, 288–290, 314I, 314J, 316A–316B, 316–317, 318A–318B, 318–319, 320A–320B, 320–322, 324A–324B, 324–326
	<ul style="list-style-type: none"> • uses a model (e.g. an array) to determine factors of whole numbers through 100. 258J, 262A–262B, 262–265, 316, 626A–626B, 626–629
	<ul style="list-style-type: none"> • explains and demonstrates the meaning of multiplication using manipulatives, drawings, number sentences, story problems, repeated addition, arrays, and area models. 258J, 260A–260B, 260–261, 262A–262B, 262–265, 266A–266B, 266–267, 316, 610I, 626A–626B, 626–628
	<ul style="list-style-type: none"> • solves multiplication facts using various strategies, including the following: <ul style="list-style-type: none"> ○ modeling with concrete objects or drawings ○ skip counting (e.g., to find 4×5, count 5, 10, 15, 20) ○ using doubles and near doubles (e.g., $3 \times 8 = (2 \times 8) + 8$) ○ applying the commutative property of multiplication (e.g., $3 \times 7 = 7 \times 3$) ○ noting and applying patterns in the “fact tables” (e.g., the regularity in the “nines”) ○ using the zero property (any number times 0 equals 0) and identity property (any number times one equals that number) <p>276A–276B, 276–278, 280A–280B, 280–281, 282A–282B, 282–283, 286A–286B, 286–287, 288A–288B, 288–291, 314I, 314J, 316A–316B, 316–317, 318A–318B, 318–319, 320A–320B, 320–323, 324A–324B, 324–327, 328A–328B, 328–329, 340A–340B, 340–341</p>
	<ul style="list-style-type: none"> • computes fluently (with accuracy and efficiency) basic multiplication facts with products to 100. 276A–276B, 276–278, 280A–280B, 280–281, 282A–282B, 282–283, 286A–286B, 286–287, 288A–288B, 288–291, 314I, 314J, 316A–316B, 316–317, 318A–318B, 318–319, 320A–320B, 320–323, 324A–324B, 324–327, 328A–328B, 328–329, 340A–340B, 340–341

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> demonstrates the inverse relationship of multiplication and division by writing related fact families. <p>384A–384B, 384–385</p>
	<ul style="list-style-type: none"> justifies if a solution is reasonable for the operation implied by the problem (e.g., in an addition problem, the sum is greater than the addends). <p>87, 99</p> <p><i>These pages provide opportunities for students to apply this task.</i></p> <p>86–86B, 86–89, 98A–98B, 98–100, 616A–616B, 616–617, 622A–622B, 622–623</p>
	<ul style="list-style-type: none"> Uses problem-solving strategies to determine the operation needed to solve one-step problems involving addition and subtraction of whole numbers. <p>76A–76B, 76–77</p>
	<ul style="list-style-type: none"> solves real-world problems involving addition, subtraction, multiplication, and division of whole numbers using an appropriate method (e.g., concrete materials, paper and pencil, mental mathematics, calculator). <p>76A–76B, 76–77, 104A–104B, 104–105, 284A–284B, 284–285, 294A–294B, 294–295, 346A–346B, 346–347, 348A–348B, 348–349, 380A–380B, 380–381, 406A–406b, 406–407, 658A–658B, 658–659, 688A–688B, 688–689</p>
	<ul style="list-style-type: none"> chooses the operation that results in a given outcome (e.g., $30 \square 2 \square 2 = 13$). <p>346A–346B, 346–347</p>
	<ul style="list-style-type: none"> explains the reasons for choosing a particular computing method for a particular problem. <p>166A–166B, 166–167, 640–640B, 640–641</p>
	<ul style="list-style-type: none"> computes fluently (with accuracy and efficiency) basic number combinations for multiplication and division. <p>276A–276B, 276–279, 280A–280B, 280–281, 282A–282B, 282–283, 286A–286B, 286–287, 288A–288B, 288–291, 314I, 314J, 316A–316B, 316–317, 318A–318B, 318–319, 320A–320B, 320–323, 324A–324B, 324–327, 328A–328B, 328–329, 340A–340B, 340–341, 386A–386B, 386–387, 388A–388B, 388–389, 390A–390B, 390–391, 392A–392B, 392–393, 396A–396B, 396–397, 402A–402B, 402–403</p>
	<ul style="list-style-type: none"> solves real-world multiplication problems with whole numbers (two digits by one digit) using concrete materials, drawings, and paper and pencil. <p>632A–632B, 632–634</p>

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> • solves real-world division problems having divisors of one digit and dividends not exceeding two digits, with and without remainders using concrete materials, drawings, and paper and pencil. <p>652A–652B, 652–654</p>
	<ul style="list-style-type: none"> • solves problems using non-routine methods (e.g., make a list, act it out). <p>140A–140B, 140–143, 436A–436B, 436–439, 578A–578B, 578–579</p>
	<ul style="list-style-type: none"> • uses estimation strategies (e.g., compatible numbers, front-end estimation) to determine a reasonable estimate of a quantity. <p><i>These pages provide opportunities for students to use compatible numbers and front-end estimation when solving problems involving operations.</i></p> <p>87A–87B, 87–89, 99A–99B, 99–101</p>
	<ul style="list-style-type: none"> • estimates quantities of objects to 250 or more (e.g., using benchmark/reference set of fewer objects). <p>165</p>
	<ul style="list-style-type: none"> • justifies the choice of estimation strategies in real-world problems. <p>86A–86B, 86–88, 90A–90B, 90–91, 99A–99B, 99–101, 616A–616B, 616–617, 622A–622B, 622–623</p>
	<ul style="list-style-type: none"> • recognizes numbers and bases other than ten (e.g., Mayan Number System, Roman Numerals). <p>27</p>
	<ul style="list-style-type: none"> • compares the symbolic difference between Roman Numerals and the decimal (base ten) number system (e.g., I = 1, V = 5, X = 10, L = 50, C = 100). <p>27</p>
4	<ul style="list-style-type: none"> • reads, writes, and identifies whole numbers through millions or more. <p>4A–4B, 4–7, 8A–8B, 8–9, 10A–10B, 10–11</p>
	<ul style="list-style-type: none"> • locates whole numbers on a number line. <p>4A–4B, 4–6</p>
	<ul style="list-style-type: none"> • uses language and symbols (>, <, =) to compare and order whole numbers through millions or more, using concrete materials, number lines, drawings, and numerals. <p>16A–16B, 16–18</p>
	<ul style="list-style-type: none"> • translates problems involving whole numbers into diagrams and models. <p>90A–90B, 90–91, 140A–140B, 140–143</p>

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> identifies the place value of a given digit in a whole number to millions. <p>4A–4B, 4–7, 8A–8B, 8–9, 10A–10B, 10–11</p>
	<ul style="list-style-type: none"> interprets and writes whole numbers expressed in expanded notation. <p>4A–4B, 4–6</p>
	<ul style="list-style-type: none"> demonstrates the inverse relationship of multiplication and division by writing related fact families. <p>122J, 148A–148B, 148–149</p>
	<ul style="list-style-type: none"> recalls from memory basic multiplication facts and related division facts. <p>122J, 132A–132B, 132–135, 136A–136B, 136–137, 148A–148B, 148–149, 150A–150B, 150–151, 152A–152B, 152–153</p>
	<ul style="list-style-type: none"> demonstrates an understanding of the properties of numbers, including the identity and commutative properties of addition, the zero and identity properties of multiplication, and the commutative and distributive properties of multiplication. <p>62B, 62–63, 128B, 129–131, 132–135, 288A, 288–289</p>
	<ul style="list-style-type: none"> identifies and applies the associative properties of addition and multiplication [e.g., $6 \times (4 \times 2) = (6 \times 4) \times 2$]. <p>62B, 62–63, 288A, 288–289</p>
	<ul style="list-style-type: none"> calculates and explains the multiplication and division of whole numbers (three digits by one digit) using manipulatives, drawings, and algorithms. <p>274A–274B, 274–275, 386A–386B, 386–388</p>
	<ul style="list-style-type: none"> predicts the relative size of solutions in the addition, subtraction, multiplication, and division of whole numbers. <p>60I, 68A–68B, 68–71, 258A–258B, 258–261, 316A–316B, 316–319, 368A–368B, 368–370, 408A–408B, 408–411</p>
	<ul style="list-style-type: none"> uses problem solving strategies to identify the operation(s) needed to solve one-step or two-step problems involving addition, subtraction, multiplication, and division of whole numbers. <p>290A–290B, 290–291</p>
	<ul style="list-style-type: none"> solves real-world problems using non-routine strategies (e.g., uses simpler numbers, works backwards). <p>648A–648B, 648–649, 714A–714B, 714–715</p>

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> • solves real-world multiplication problems with whole numbers (three digits by one digit), using concrete materials, drawings, and pencil and paper. <p>274A–274B, 274–275</p>
	<ul style="list-style-type: none"> • solves real-world problems involving addition, subtraction, multiplication, and division of whole numbers using an appropriate method (e.g., mental mathematics, paper and pencil, calculator) and explains reasoning for choosing that method. <p>156A–156B, 156–157, 278A–278B, 278–281, 290A–290B, 290–291, 384A–384B, 384–385, 396A–396B, 396–397</p>
	<ul style="list-style-type: none"> • chooses and explains estimation strategies used to determine the reasonableness of solutions to real-world problems. <p>600A–600B, 600–601</p>
	<ul style="list-style-type: none"> • estimates quantities of objects to 500 or more and justifies the reasoning (e.g., compatible numbers, benchmark numbers, front-end estimation). <p><i>These pages provide opportunities for students to use compatible numbers and front-end estimation when solving problems involving operations.</i></p> <p>68A–68B, 68–71, 258A–258B, 258–160, 316A–316B, 316–319, 368A–368B, 368–370</p>
	<ul style="list-style-type: none"> • knows factors and multiples of numbers to 100. <p>132A–132B, 132–135, 136A–136B, 136–137</p>
	<ul style="list-style-type: none"> • computes fluently (with accuracy and efficiency) basic number combinations for multiplication and division. <p>132A–132B, 132–135, 136A–136B, 136–137, 148A–148B, 148–149, 150A–150B, 150–151, 152A–152B, 152–153</p>
	<ul style="list-style-type: none"> • multiplies by 10, 100, and 1000; recognizes and demonstrates related patterns. <p>256A–256B, 256–257</p>
	<ul style="list-style-type: none"> • knows and applies rules of divisibility for 2, 3, 5, 9, and 10. <p>402A–402B, 402–403</p>
	<ul style="list-style-type: none"> • uses models to identify perfect squares to 100. <p>323</p>
	<ul style="list-style-type: none"> • compares the symbolic differences between Roman Numerals and the decimal (base ten) number system (e.g., D = 500, M = 1000). <p>195</p>

Grade	TASK ANALYSIS
5	<ul style="list-style-type: none"> demonstrates knowledge of reading, identifying, and writing numbers through millions and more. 4A–4B, 4–5
	<ul style="list-style-type: none"> knows the value of a digit in a whole number up to millions. 4A–4B, 4–5
	<ul style="list-style-type: none"> indicates place value as a power of 10 (e.g., $10^2 = 100$). 17
	<ul style="list-style-type: none"> expresses numbers to millions or more in expanded form using powers of ten with or without exponential notation. 4A–4B, 4–5, 17
	<ul style="list-style-type: none"> predicts a reasonable solution in addition, subtraction, multiplication, and division of whole numbers. 36–37, 72–75, 152–155, 214A, 214–217
	<ul style="list-style-type: none"> chooses, describes, and explains estimation strategies used to determine the reasonableness of solutions to real-world problems (e.g., $48 + 51$ is about 100). 28A–28B, 28–31, 68A–68B, 68–69, 86A–86B, 86–87, 130J, 138A–138B, 138–141, 204A–204B, 204–207
	<ul style="list-style-type: none"> uses the properties of addition, subtraction, multiplication, and division to create number sentences to solve real-world problems. 22A–22B, 22–25, 66A–66B, 66–67, 70A–70B, 70–71
	<ul style="list-style-type: none"> determines if numbers up to 100 are prime or composite by finding factors. 164A–164B, 164–167
	<ul style="list-style-type: none"> writes a whole number as a product of its prime factors (e.g., $1 \times 2 \times 2 \times 3 = 12$). 164A–164B, 164–166
	<ul style="list-style-type: none"> identifies the greatest common factor of at least two numbers. 414A–414B, 414–415
	<ul style="list-style-type: none"> identifies the least common multiple of two or more numbers up to at least 100. 464A–464B, 464–465
	<ul style="list-style-type: none"> multiplies by powers of 10 (100, 1000, and 10,000) demonstrating patterns. 66A–66B, 66–67

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> identifies and applies rules of divisibility for 2, 3, 4, 5, 6, 9, and 10. 162A–162B, 162–163
	<ul style="list-style-type: none"> solves division problems with 2–digit divisors and 4–digit dividends. 200J, 218A–218B, 218–221, 222A–222B, 222–223, 224A–224B, 224–225
	<ul style="list-style-type: none"> computes fluently (with accuracy and efficiency) basic number combinations for multiplication and division. <i>Basic facts are directly taught in Grade 4. In Grade 5, students have many opportunities to apply the facts they know. These are some of the many examples.</i> 66A–66B, 66–67, 70A–70B, 70–71, 72A–72B, 72–74, 76A–76B, 76–77, 136A–136B, 136–137, 152A–152B, 152–154, 156A–156B, 156–157, 158A–158B, 158–159
	<ul style="list-style-type: none"> creates models (e.g., snap cubes, grid paper) to identify perfect squares up to 144 or more. 141
	<ul style="list-style-type: none"> determines and uses an appropriate estimation strategy (e.g., front–end rounding, compatible numbers). 22A–22B, 22–24, 28A–28B, 28–31, 64I, 68A–68B, 68–69, 86A–86B, 86–87, 130I, 130J, 138A–138B, 138–141
	<ul style="list-style-type: none"> chooses, describes, and explains orally or in writing estimation strategies (e.g., benchmark numbers) used to determine the reasonableness of solutions to real–world problems (e.g., estimation jar, number of pizza slices sold in a day). 624A–624B, 624–625
	<ul style="list-style-type: none"> determines solutions to a set using a number line (e.g., for $n \leq 5$, the solution is 0, 1, 2, 3, 4, 5). <i>See Grade 4.</i>
	<ul style="list-style-type: none"> arranges a set of digits to create the least or greatest number (e.g., the digits 4, 7, 1, 2 may be arranged as least = 1,247 or greatest = 7,421). <i>These pages prepare students to meet this task.</i> 4A–4B, 4–5, 6A–6B, 6–7
	<ul style="list-style-type: none"> explains in writing and demonstrates the commutative, associative, identity, and distributive properties of multiplication for whole numbers. 66A–66B, 66–67, 70A–70B, 70–71
	<ul style="list-style-type: none"> examines numbers and bases other than ten (e.g., base five). 207

Grade	TASK ANALYSIS
	FRACTIONS
3	<ul style="list-style-type: none"> reads, writes, and identifies proper fractions with denominators including 2, 3, 4, 5, 6, 8, 10, and 100. 502A–502B, 502–503, 504A–504B, 504–505, 506A–506B, 506–509, 510A–510B, 510–511, 512A–512B, 512–513, 516A–516B, 516–517, 518A–518B, 518–519, 520A–520B, 520–521, 522A–522B, 522–525, 564A–564B, 564–565, 566A–566B, 566–567
	<ul style="list-style-type: none"> defines the numerator as the number above the line in a fraction, telling how many equal parts are described by the fraction. 502
	<ul style="list-style-type: none"> defines the denominator as the number below the line in a fraction, telling how many equal parts are in the set or whole. 502
	<ul style="list-style-type: none"> recognizes and writes fractions correctly (e.g., $\circ\circ\bullet = 1/3$ not $3/1$). 502A–502B, 502–503, 504A–504B, 504–505, 506A–506B, 506–509, 510A–510B, 510–511, 512A–512B, 512–513, 516A–516B, 516–517, 518A–518B, 518–519, 520A–520B, 520–521, 522A–522B, 522–525, 564A–564B, 564–565, 566A–566B, 566–567
	<ul style="list-style-type: none"> uses language and symbols (<, >, =) to compare the relative size of commonly used fractions. 506A–506B, 506–509
	<ul style="list-style-type: none"> compares and orders commonly used fractions, including halves, thirds, fourths, sixths, and eighths, using concrete materials. 506A–506B, 506–509
	<ul style="list-style-type: none"> Identifies a fraction using a model that is part of a whole. 502A–502B, 502–503, 504A–504B, 504–505, 509
	<ul style="list-style-type: none"> identifies a fraction using a model that is part of a group/set (e.g., $\circ\circ\bullet$, 1 out of 3 is shaded). 516A–516B, 516–517, 518A–518B, 518–519
	<ul style="list-style-type: none"> translates real-world problems into diagrams and appropriate models (e.g., parts of a group/set, parts of a whole) using fractions (e.g., 5 out of 25 students brought lunch). 500, 502A–502B, 502–503, 507, 508, 510, 513, 516A–516B, 516–517, 518A–518B, 518–519, 521, 522A–522B, 522–524

Grade	TASK ANALYSIS
4	<p>The student...</p> <ul style="list-style-type: none"> reads, writes, and identifies fractions and mixed numbers with denominators including 2, 3, 4, 5, 6, 8, 10, 12, 20, 25, 100, and 1000. 500A–500B, 500–501, 502A–502B, 502–503, 504A–504B, 504–507
	<ul style="list-style-type: none"> locates fractions and mixed numbers on a number line. 504A–504B, 504–507, 534A–534B, 534–535
	<ul style="list-style-type: none"> uses language and symbols (<, >, =) to compare and order fractions. 522A–522B, 522–523, 524A–523B, 524–527, 534A–534B, 534–535
	<ul style="list-style-type: none"> translates problem situations involving fractions into diagrams and models. 560I, 562A–562B, 564A–564B, 564, 568A, 568, 574A–574B, 574, 577, 578A, 578
	<ul style="list-style-type: none"> identifies and represents fractions using models that are parts of a whole or parts of a group. 498I, 500A–500B, 500–501, 502A–502B, 502–503
	<ul style="list-style-type: none"> uses concrete materials (e.g., pattern blocks, fraction bars) to model equivalent forms of whole numbers and fractions. 516A–516B, 516–518
	<ul style="list-style-type: none"> identifies equivalent forms of fractions (e.g., $2/8 = 1/4$). 516A–516B, 516–518, 520A–520B, 520–521
	<ul style="list-style-type: none"> recognizes that two numbers in different forms (e.g., whole numbers and fractions) are equivalent or non-equivalent (e.g., $8/8 = 1$). 516A–516B, 516–518
	<ul style="list-style-type: none"> calculates and explains the addition and subtraction of common fractions using concrete materials, drawings, story problems, and algorithms. 564A–564B, 564–566, 568A–568B, 568–571, 574A–574B, 574–576, 578A–578B, 578–581
	<ul style="list-style-type: none"> predicts the relative size of solutions when adding and subtracting common fractions. 560I, 562A–562B, 562–563
	<ul style="list-style-type: none"> uses problem-solving strategies to identify the operation(s) needed to solve one- and two-step problems involving addition and subtraction of fractions. <i>These pages prepare students to meet this task.</i> 564A–564B, 564–567, 568A–568B, 568–571, 574A–574B, 574–577, 578A–578B, 578–581

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> solves real-world problems involving fractions by using non-routine strategies (e.g., act it out, represent it pictorially). 564A–564B, 564–566, 568A–568B, 568–571, 574A–574B, 574–576, 578A–578B, 578–581
	<ul style="list-style-type: none"> selects an appropriate method (mental mathematics, paper and pencil, or calculator) to solve real-world problems involving the addition and subtraction of fractions and explains the reasons for choosing that particular method. 564A–564B, 564–566, 568A–568B, 568–571, 574A–574B, 574–576, 578A–578B, 578–581
	<ul style="list-style-type: none"> solves real-world problems involving the addition and subtraction of common fractions with like or unlike denominators. 564A–564B, 564–566, 568A–568B, 568–571, 574A–574B, 574–576, 578A–578B, 578–581
<p>5</p>	<ul style="list-style-type: none"> constructs pictorial representations of fractions and mixed numbers. <i>These pages prepare students to meet this task.</i> 394A–394B, 394–397, 400A–400B, 400–401
	<ul style="list-style-type: none"> compares and orders fractions with unlike denominators using concrete materials, number lines, drawings, and numerals (e.g., $\frac{1}{6}$, $\frac{1}{3}$, $\frac{2}{4}$). 418A–418B, 418–419, 420A–420B, 420–423
	<ul style="list-style-type: none"> compares fractions to decimals and percents (e.g., $\frac{3}{100} = 0.03 = 3\%$). 668A–668B, 668–669
	<ul style="list-style-type: none"> identifies fractions as ratios in three forms (e.g., $\frac{1}{3}$, 1 to 3, 1:3). 646A–646B, 646–647
	<ul style="list-style-type: none"> arranges fractions and mixed numbers on a number line. 404A–404B, 04–405
	<ul style="list-style-type: none"> uses models (drawings or manipulatives) to show the relationship between mixed numbers and improper fractions. 400A–400B, 400–401
	<ul style="list-style-type: none"> applies knowledge of the relationship of mixed numbers and improper fractions to solve mathematical and real-world problems. 400A–400B, 400–401
	<ul style="list-style-type: none"> identifies and calculates equivalent fractions (e.g., simplest form: $\frac{3}{6} = \frac{1}{2}$ or $\frac{6}{10} = \frac{3}{5}$). 410A–410B, 410–413

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> determines the sum and difference of fractions and mixed numbers with unlike denominators and expresses in simplest form. 462A–462B, 462–463, 466A–466B, 466–468, 476A–476B, 476–477, 478A–478B, 478–480
	<ul style="list-style-type: none"> determines the product of fractions and expresses in simplest form. 458J, 496–499
	<ul style="list-style-type: none"> predicts the relative size of the sum, difference, and product of fractions (e.g., product of two fractions is less than either factor). 460A–460B, 460–461, 462A–462B, 462–463, 494A–494B, 494–495
	<ul style="list-style-type: none"> explains and demonstrates the inverse of multiplication and division of fractions (e.g., multiplying by $\frac{1}{2}$ is the same as dividing by 2). <i>These pages prepare students to meet this task.</i> 132B, 133–134
	<ul style="list-style-type: none"> selects and uses the appropriate operation up to two steps to solve real-world problems involving addition, subtraction, and multiplication of fractions. 504A–504B, 504–505
	<ul style="list-style-type: none"> selects and uses the appropriate method (mental mathematics, paper and pencil, or calculator) and strategy (routine or non-routine) to solve real-world problems with fractions. 484A–484B, 484–487, 499, 506A–506B, 506–507
	DECIMALS
3	<ul style="list-style-type: none"> reads, writes, and identifies decimal notation in the context of money. 36A–36B, 36–39, 40A–40B, 40–41, 162A–162B, 162–165, 571, 638A–638B, 638–639
	<ul style="list-style-type: none"> uses language and symbols ($>$, $<$, $=$) to compare the relative size of decimals in the context of money. <i>These pages prepare students to meet this task.</i> 36A–36B, 36–39
	<ul style="list-style-type: none"> translates real-world problems into diagrams and models using decimal notation in the context of money. 36A–36B, 36–39, 40A–40B, 40–41
	<ul style="list-style-type: none"> relates decimal money notation to fractions and common percents (e.g., $\\$0.50 = \frac{1}{2}$ of a dollar = 50%). 571

Grade	TASK ANALYSIS
4	<p>The student...</p> <ul style="list-style-type: none"> reads, writes, and identifies decimals through hundredths. 628A–628B, 628–629
	<ul style="list-style-type: none"> locates decimals on a number line. 628, 630, 632
	<ul style="list-style-type: none"> uses language and symbols (>, <, =) to compare and order decimals to hundredths using concrete materials, number lines, drawings, and numerals. 622I, 630A–630B, 630–631
	<ul style="list-style-type: none"> translates problem situations into diagrams and models using decimals to hundredths, including money notation. 624A–624B, 624–627, 628A–628B, 636, 638A–638B, 638–640, 645
	<ul style="list-style-type: none"> relates decimal money notation to fractions and common percents (e.g., \$0.25 = 1/4 of a dollar = 25%). <i>These pages prepare students to meet this task.</i> 624A–624B, 624–627
	<ul style="list-style-type: none"> identifies pictorial representations of decimal fractions. 624A–624B, 624–627
	<ul style="list-style-type: none"> uses concrete materials to model equivalent forms of whole numbers, fractions, and decimals. 624A–624B, 624–627
	<ul style="list-style-type: none"> identifies equivalent forms of numbers. 624A–624B, 624–627
	<ul style="list-style-type: none"> recognizes that two numbers in different forms (whole numbers, decimals, fractions, mixed numbers) are equivalent or non-equivalent. 624A–624B, 624–627
	<ul style="list-style-type: none"> identifies the place value of a digit in a decimal fraction to hundredths. 628A, 628–629
	<ul style="list-style-type: none"> calculates and explains the addition and subtraction of decimals (to hundredths) using concrete materials, drawings, story problems, and algorithms. 638A–638B, 638–640, 642A–642B, 642–644
	<ul style="list-style-type: none"> predicts the relative size of solutions in the addition and subtraction of decimals to hundredths. 636A–636B, 636–637

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> uses problem-solving strategies to identify the operation(s) needed to solve one- and two-step problems involving the addition and subtraction of decimals. <p><i>These pages prepare students to meet this task.</i> 638A–638B, 638–640, 642A–642B, 642–644</p>
	<ul style="list-style-type: none"> solves real-world problems using non-routine strategies (e.g., pictorially). <p>642B, 642–644</p>
	<ul style="list-style-type: none"> solves real-world problems involving addition and subtraction of decimals using an appropriate method (mental math, paper and pencil, or calculator) and explains reasons for choosing that method. <p>642A–642B, 642–644</p>
5	<ul style="list-style-type: none"> names decimals less than one with a leading zero in the ones place (e.g., 0.03). <p><i>These pages prepare students to meet this task.</i> 8A–8B, 8–11</p>
	<ul style="list-style-type: none"> identifies the value of a digit in a decimal to ten thousandths. <p><i>These pages prepare students to meet this task.</i> 8A–8B, 8–11</p>
	<ul style="list-style-type: none"> investigates decimals through the use of graphic organizers (e.g., number line, circle graph, place-value chart, hundred chart) and calculations. <p>2I, 8A–8B, 8–11, 26A–26B, 26–27</p>
	<ul style="list-style-type: none"> compares and orders decimals to the thousandths place using numerals and concrete materials (e.g., number lines, drawings). <p>12A–12B, 12–13, 237</p>
	<ul style="list-style-type: none"> compares and orders decimals using different forms (e.g., $0.03 = 3\% = \frac{3}{100}$). <p><i>These pages prepare students to meet this task.</i> 426A–426B, 426–428, 668A–668B, 668–669</p>
	<ul style="list-style-type: none"> determines the sum and difference of decimals in real-world settings. <p>2J, 38A–38B, 38–39, 40A–40B, 40–41</p>
	<ul style="list-style-type: none"> predicts the relative size of the sum, difference, product, or quotient of decimals. <p>86A–86B, 86–87, 205</p>

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> determines the product of decimals in real-world settings ($\\$2.50 \times 3 = ?$). <p>88A–88B, 88–90</p>
	<ul style="list-style-type: none"> determines the quotient of a decimal with the divisor being a whole number in real-world settings (e.g., $2.5 \div 5 = 0.5$). <p>234A–234B, 234–236</p>
	<ul style="list-style-type: none"> selects and uses the appropriate operation up to two steps to solve a real-world problem involving addition, subtraction, multiplication, and division of decimals. <p>38B, 38–39, 40–41, 88–91, 92B, 92–93, 94–97, 234–236</p>
	<ul style="list-style-type: none"> selects and uses the appropriate method (mental math, paper and pencil, or calculator) and strategy (routine or non-routine) to solve real-world problems with fractions. <p>484A–484B, 484–487, 504A–504B, 504–505</p>
	<ul style="list-style-type: none"> uses estimation strategies to justify the reasonableness of a solution to real-world problems involving decimals or money (e.g., round to the nearest dollar/whole number, tenth, hundredth). <p>86A–86B, 86–87</p>
	PERCENTS
3	<ul style="list-style-type: none"> relates decimal money notation to fractions and common percents (e.g., $\\$0.50$, $1/2$ of a dollar, 50%). <p>571</p>
4	<ul style="list-style-type: none"> relates decimal money notation to fractions and common percents (e.g., $\\$0.75$, $3/4$ of a dollar, 75%). <p><i>These pages prepare students to meet this task.</i></p> <p>624A–624B, 624–627</p>
5	<ul style="list-style-type: none"> represents percent as a part of a hundred, using a model (e.g., circle graph, 10 x 10 grid). <p>668A–668B, 668–669</p>
	<ul style="list-style-type: none"> draws a model demonstrating common percents as multiples of five for a real-world problem (e.g., 10%, 15%, 20%). <p>668A–668B, 668–669</p>
	<ul style="list-style-type: none"> expresses a percent as a fraction and/or decimal. <p>668A–668B, 668–669, 670A–670B, 670–671</p>

Grade	TASK ANALYSIS
	<p data-bbox="345 233 560 264">The student...</p> <ul data-bbox="345 275 1344 344" style="list-style-type: none"> <li data-bbox="345 275 1344 344">• compares and orders whole numbers, decimals, fractions, and percents (e.g., 80%, 64, 0.50, 1/4). <p data-bbox="345 348 402 380">671</p>
	<ul data-bbox="345 390 1430 459" style="list-style-type: none"> <li data-bbox="345 390 1430 459">• uses benchmark percents (commonly used percents) to get close to an amount to be estimated. <p data-bbox="345 464 657 495">670B, 672B, 672–674</p>
	<ul data-bbox="345 506 1138 537" style="list-style-type: none"> <li data-bbox="345 506 1138 537">• computes the cost of an item including sales tax. <p data-bbox="345 541 1031 573"><i>These pages prepare students to meet this task.</i></p> <p data-bbox="345 577 472 611">672–674</p>
	<ul data-bbox="345 621 1372 653" style="list-style-type: none"> <li data-bbox="345 621 1372 653">• computes the cost of an item at a discounted rate (e.g., 10% off). <p data-bbox="345 657 495 680">672B, 674</p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Measurement
Grade Cluster: 3–5

Benchmarks

MA.B.1.2.1: The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.

MA.B.1.2.2: The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time temperature, and angles.

MA.B.2.2.1: The student uses direct (measured) and indirect (not measured) measures to calculate and compare measurable characteristics.

MA.B.2.2.2: The student selects and uses appropriate standard and nonstandard units of measurement, according to type and size.

MA.B.3.2.1: The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.

MA.B.4.2.1: The student determines which units of measurement, such as seconds, square inches, dollars per tankful, to use with answers to real world problems.

MA.B.4.2.2: The student selects and uses appropriate instruments and technology, including scales, rulers, thermometers, measuring cups, protractors, and gauges, to measure in real-world situations.

MA.A.3.2.2: The student selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.

MA.C.1.2.1: The student given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.

MA.C.3.2.1: The student represents and applies a variety of strategies and geometric properties and formulas for two- and three-dimensional shapes to solve real-world and mathematical problems.

Grade	TASK ANALYSIS The student...
	LENGTH
3	<ul style="list-style-type: none"> uses non-standard units to measure and compare objects. 532A–532B, 532–533
	<ul style="list-style-type: none"> demonstrates an understanding of customary and metric terms and tools involving length and distance. 496J, 532A–532B, 532–533, 534A–534B, 534–535, 536A–536B, 536–537, 538A–538B, 538–539, 562J, 582A–582B, 582–583, 584A–584B, 584–587
	<ul style="list-style-type: none"> measures, reads, and records the length of items on a measurement tool to the nearest scale of measurement ($\frac{1}{2}$ inch, inch, foot, yard, centimeter, meter). 532A–532B, 532–533, 534A–534B, 534–535, 562J, 582A–582B, 582–583
	<ul style="list-style-type: none"> determines measurement in real-world problems using customary (e.g., ruler, tape measure, yardstick) and metric tools (meter stick). 496J, 532A–532B, 532–533, 534A–534B, 534–535, 562J, 582A–582B, 582–583, 584A–584B, 584–587
	<ul style="list-style-type: none"> estimates the measurement of an object in a pictorial representation by using the known measure of another object (e.g., determine length of a pencil if a paper clip shown is 2 inches). 532A–532B, 532–533, 534A–534B, 534–535, 582A–582B, 582–583
	<ul style="list-style-type: none"> converts measurement units within a single system (e.g., 12 inches = 1 foot). 536A–536B, 536–537, 538A–538B, 538–539, 587
	<ul style="list-style-type: none"> uses oral and written language to justify estimation strategies. <i>These pages provide students with the opportunity to apply this task.</i> 496J, 532A–532B, 532–533, 534A–534B, 534–535, 536A–536B, 536–537, 538A–538B, 538–539, 562J, 582A–582B, 582–583, 584A–584B, 584–587
4	<ul style="list-style-type: none"> selects and uses appropriate units of measurement, standard and nonstandard. 588A–588B, 588–589, 590A–590B, 590–591, 622J, 652–653, 658–660
	<ul style="list-style-type: none"> identifies standard measurement units on a measurement tool to the nearest scale of measurement ($\frac{1}{4}$ inch, foot, yard, mile, millimeter, centimeter, meter, kilometer). 588A–588B, 588–589, 590A–590B, 590–591, 652A–652B, 652–653
	<ul style="list-style-type: none"> develops strategies for estimating measurement in real-world situations. 588A–588B, 588–589, 652A–652B, 652–653

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> selects and uses the appropriate measurement tools (ruler, meter stick, tape measure, yard stick, trundle wheel) and units of measure in real-world situations. 588A–588B, 588–589, 590A–590B, 590–591, 622J, 652A–652B, 652–653
	<ul style="list-style-type: none"> obtains the measurement of an object by using the known measure of another object (indirect measure). 588A–588B, 588–589, 590A–590B, 590–591, 652A–652B, 652–653
	<ul style="list-style-type: none"> uses direct measure (customary and metric) to determine and compare length. 588A–588B, 588–589, 590A–590B, 590–591, 622J, 652–653, 658–660
	<ul style="list-style-type: none"> uses multiplication or division to convert units of measure within the customary or metric system (e.g., 100 cm = 1 m). 560J, 596A–596B, 596–599, 653, 658A–658B, 658–660
	<ul style="list-style-type: none"> uses words and/or pictures to describe strategies used to solve linear problems. 600B, 600–601
5	<ul style="list-style-type: none"> applies the appropriate unit of measure (to the nearest $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$ inch, foot, yard, mile, mm, cm, m, or km) using real-world examples. 528A–528B, 528–531, 532A–532B, 532–533, 534A–534B, 534–535, 536A–536B, 536–539
	<ul style="list-style-type: none"> estimates measurements using real-world examples. 529, 537, 538
	<ul style="list-style-type: none"> converts within the same system using two conversions per multiple-step problems (e.g., 18 inches = 1 $\frac{1}{2}$ feet or 150 cm = 1.5 m). 528A–528B, 528–531, 536A–536B, 536–539
	<ul style="list-style-type: none"> determines measurement indirectly from drawings (e.g., scale drawings). 662A–662B, 662–665
	<ul style="list-style-type: none"> explains through oral and written language the relationship of units within the same system (e.g., inches to feet). 528A–528B, 528–531, 536A–536B, 536–539
	WEIGHT
3	<ul style="list-style-type: none"> uses various tools (e.g., balance, spring scale, bathroom scale) to find the weight of objects. 690A–690B, 694A–694B

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> • Demonstrates an understanding of customary and metric terms (ounce, pound, gram, kilogram). 690A–690B, 690–693, 694A–694B, 694–695
	<ul style="list-style-type: none"> • compares metric/customary unit to pictorial representations (e.g., when shown pictures of an object, choose the appropriate unit). 690A–690B, 690–691, 694A–694B, 694–695
	<ul style="list-style-type: none"> • converts customary/metric units within a single system (e.g., 16 oz. = 1 lb., 1000 g = 1 kg). 690B, 691–693, 694B, 694–695
	<ul style="list-style-type: none"> • justifies selection of the appropriate units and tools for measuring weight to solve real-world problems. 690A–690B, 690–693, 694A–694B, 694–695
	<ul style="list-style-type: none"> • estimates various weights to the nearest pound and kilogram. 690A–690B, 690–692, 694A–694B, 694–695
4	<ul style="list-style-type: none"> • uses the appropriate tool (e.g., balance, spring scale, bathroom scale) and unit (customary/metric) to determine and compare weight. 594A–594B, 594–595, 656A–656B, 656–657
	<ul style="list-style-type: none"> • develops strategies for estimating weight to the nearest ounce and gram in real-world problems. 594A–594B, 594–595, 656A–656B, 656–657
	<ul style="list-style-type: none"> • estimates the weight of an object by using the known measure of another object. 594A–594B, 594–595, 656A–656B, 656–657
	<ul style="list-style-type: none"> • Uses multiplication and division to convert units of measure within the customary or metric system (1000 grams = 1 kilogram). 560J, 596A–596B, 596–599, 658A–658B, 658–660
5	<ul style="list-style-type: none"> • applies the appropriate unit to pictorial models (ounces, pounds, tons; milligrams, grams, kilograms). <i>These pages prepare students to meet this task.</i> 620A–620B, 620–621, 622A–622B, 622–623
	<ul style="list-style-type: none"> • estimates measurements to solve real-world problems (e.g., estimate in grams the weight of a large paper clip). <i>These pages prepare students to meet this task.</i> 620A–620B, 620–621, 622A–622B, 622–623
	<ul style="list-style-type: none"> • calculates to convert within the same system, using up to two conversions (e.g., milligrams to grams to kilograms). 620A–620B, 620–621, 622A–622B, 622–623
	<ul style="list-style-type: none"> • cites examples of everyday objects that would weigh a given amount. 620B

Grade	TASK ANALYSIS The student...
	TIME
3	<ul style="list-style-type: none"> tells time, using analog and digital clocks, and understands the components of a calendar (days, weeks, months, years). 192A–192B, 192–195, 196A–196B, 196–197, 198A–198B, 198–199, 200A–200B, 200–201
	<ul style="list-style-type: none"> knows that a.m. begins at midnight. 193–195
	<ul style="list-style-type: none"> knows that p.m. begins at noon. 193–195
	<ul style="list-style-type: none"> tells time to one-minute intervals. 196A–196B, 196–197
	<ul style="list-style-type: none"> illustrates knowledge of telling time using different terminology (e.g., 1:15, one–fifteen, quarter past one, quarter after one, fifteen minutes after one). 192, 194–195, 196–197
	<ul style="list-style-type: none"> counts an hour later or an hour before from any point on a clock. <i>These pages prepare students to meet this task.</i> 190I, 198A–198B, 198–199
	<ul style="list-style-type: none"> determines elapsed time in one–hour intervals from any point on a clock. 190I, 198A–198B, 198–199
	<ul style="list-style-type: none"> converts hours to minutes when calculating elapsed time on an analog clock (e.g., 11:15 to 12:30 is 1 hour and 15 minutes or 75 minutes). <i>These pages prepare students to meet this task.</i> 198A–198B, 198–199
	<ul style="list-style-type: none"> determines elapsed time from any point on a calendar. <i>These pages prepare students to meet this task.</i> 200A–200B, 200–201
	<ul style="list-style-type: none"> solves problems involving estimated measurement of time to the nearest $\frac{1}{2}$ hour. <i>These pages prepare students to meet this task.</i> 193–194

Grade	TASK ANALYSIS
	The student...
4	<ul style="list-style-type: none"> converts units of time (e.g., minutes to hours). <i>See Grade 5.</i>
	<ul style="list-style-type: none"> compares time intervals, including decades, years, months, days, hours, minutes, and seconds. 192A–192B, 193–194, 198A–198B, 198–199
	<ul style="list-style-type: none"> calculates elapsed time using clocks to the nearest $\frac{1}{4}$ and $\frac{1}{2}$ hour. 196A–196B, 196–197
	<ul style="list-style-type: none"> solves real-world problems using schedules and calendars and explains reasoning. 198A–198B, 198–199, 200A–200B, 200–201
	<ul style="list-style-type: none"> solves problems involving estimated measurement of time to the nearest five-minute interval. 191
5	<ul style="list-style-type: none"> compares varied time intervals including centuries, decades, hours, minutes, and seconds. 562A–562B, 562–563
	<ul style="list-style-type: none"> estimates time to the nearest one-minute interval. <i>See Grade 4.</i>
	<ul style="list-style-type: none"> calculates elapsed time using calendars, schedules, and clocks (to the nearest minute). 564A–564B, 564–567
	<ul style="list-style-type: none"> calculates units of elapsed time using digital and analog clocks. 564A–564B, 564–567
	<ul style="list-style-type: none"> determines time utilizing time zone maps. 566
	<ul style="list-style-type: none"> creates and analyzes schedules/tables using elapsed time in real-world applications. 564A–564B, 564–567
	<ul style="list-style-type: none"> justifies through oral and written mathematical language the use of time schedules and tables in real-world situations. 564A–564B, 564–567
	TEMPERATURE
3	<ul style="list-style-type: none"> demonstrates an understanding of Celsius and Fahrenheit scales on thermometers. 696A–696B, 696–697
	<ul style="list-style-type: none"> reads thermometer scales (Celsius and Fahrenheit) accurately, including temperatures between interval markings. 696A–696B, 696–697

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> estimates Celsius and Fahrenheit temperatures in real-life situations and from pictorial representations. 696–697
	<ul style="list-style-type: none"> justifies implications of temperature to real-life situations. (e.g., What would you wear if the temperature were 38° F? 38° C?) 696B, 696–697
	<ul style="list-style-type: none"> calculates the difference in temperatures (e.g., 78° – 43° = 35°). <i>See Grade 5.</i>
4	<ul style="list-style-type: none"> solves real-world problems involving estimation of temperatures to the nearest five degrees. <i>These pages prepare students to meet this task.</i> 664A–664B, 664–665
	<ul style="list-style-type: none"> describes the procedures used to determine temperatures using Celsius and Fahrenheit scales. 664A–664B, 664–665
5	<ul style="list-style-type: none"> compares temperature change within the same scale using Celsius or Fahrenheit, including readings below zero. 568A–568B, 568–569
	<ul style="list-style-type: none"> explains in writing how to calculate a change in temperature, including below zero. 568A–568B, 568–569
MONEY	
3	<ul style="list-style-type: none"> demonstrates an understanding of equivalent sets of coins. 36B, 37–39
	<ul style="list-style-type: none"> counts money using a combination of coins and bills up to \$10.00. 36A–36B, 36–39, 135
	<ul style="list-style-type: none"> reads and records money amounts using the dollar sign and decimal point. 36A–36B, 36–39, 40A–40B, 40–41, 124J, 135, 162A–162B, 162–165, 571, 638A–638B, 638–639
	<ul style="list-style-type: none"> adds and subtracts money amounts using mental math and/or paper and pencil. 124J, 135, 162A–162B, 162–165
	<ul style="list-style-type: none"> estimates and/or solves real-world problems (e.g., making change using a variety of combinations of coins and currency). 36B, 36–39, 40B, 40–41, 124J, 135, 162A–162B, 162–165, 638A–638B, 638–639

Grade	TASK ANALYSIS The student...
4	<ul style="list-style-type: none"> selects appropriate method (e.g., mental math, estimation, calculators, paper and pencil) for calculating amounts of money based on the given situation. 2J, 30A–30B, 30–31
	<ul style="list-style-type: none"> calculates correct change and counts it back. 32A–32B, 32–33
	<ul style="list-style-type: none"> solves real-world problems involving money and evaluates the reasonableness of the results. 2J, 30A–30B, 30–31, 32A–32B, 32–33
5	<ul style="list-style-type: none"> uses appropriate strategies for counting back change. <i>See Grade 4.</i>
	<ul style="list-style-type: none"> applies operations related to real-world money problems (e.g., balances a checkbook). <i>These pages prepare students to meet this task.</i> 148A–148B, 148–151
	<ul style="list-style-type: none"> produces an organized list to illustrate equivalent amounts of money. 148A–148B, 148–151
	<ul style="list-style-type: none"> computes cost per item related to real-world situations. 160–161
	<ul style="list-style-type: none"> uses cost per item to determine the better buy. 160–161
	<ul style="list-style-type: none"> finds the price of an item on sale (percent of a number). <i>These pages prepare students to meet this task.</i> 668–669, 670–671, 672–675
	<ul style="list-style-type: none"> computes the total sale price including sales tax. <i>These pages prepare students to meet this task.</i> 673, 674
	PERIMETER
3	<ul style="list-style-type: none"> defines perimeter as the distance around the outside of a plane figure. 464B, 464
	<ul style="list-style-type: none"> uses a wide variety of concrete objects (e.g., grid paper, string, geoboard, tiles, cubes) to explore perimeter. 464A–464B, 464–467
	<ul style="list-style-type: none"> uses addition as the basic mathematical operation to calculate perimeter. 464A–464B, 464–466

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> calculates perimeter by identifying the length of a missing side when given a pictorial model. <i>These pages prepare students to meet this task.</i> 464A–464B, 464–466
	<ul style="list-style-type: none"> estimates and solves real-world problems involving perimeter. 464B, 465–466
4	<ul style="list-style-type: none"> uses a wide variety of concrete objects (e.g., cubes, grid paper, string, tiles, geoboards) to determine the perimeter. 464A–464B, 464–467, 471
	<ul style="list-style-type: none"> discovers strategies (counting, addition, multiplication) to determine the measurement of a perimeter. 464A–464B, 464–467, 471
	<ul style="list-style-type: none"> selects the appropriate strategy and unit for labeling the perimeter in real-world problems. 474A–474B, 474–475
	<ul style="list-style-type: none"> estimates the perimeter of regular and irregular polygons. <i>These pages prepare students to meet this task.</i> 464A–464B, 464–467, 471
	<ul style="list-style-type: none"> communicates an understanding of perimeter through the creation of a real-world problem. 474A–474B, 474–475
5	<ul style="list-style-type: none"> discovers and applies the formula $(2 \times L) + (2 \times W) = P$ for finding the perimeter of squares and rectangles. 540A–540B, 540–541
	<ul style="list-style-type: none"> determines the length of a side when the perimeter is known in a named polygon. <i>These pages prepare students to meet this task.</i> 540A–540B, 540–541
	<ul style="list-style-type: none"> knows how to determine whether an accurate or estimated measurement of perimeter is needed for a solution. <i>These pages prepare students to meet this task.</i> 540A–540B, 540–541
	<ul style="list-style-type: none"> solves real-world problems involving perimeter. 540A–540B, 540–541, 558A–558B, 558–559
	<ul style="list-style-type: none"> writes a number sentence to express how perimeter was found, using counting or multiplication. 540A–540B, 540–541

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> investigates measures of circumference using concrete measurement (e.g., string, tape measure). 542A–542B, 542–544
	AREA
3	<ul style="list-style-type: none"> uses a variety of concrete objects (e.g., tiles, cubes) to explore area. 468A–468B, 468–471
	<ul style="list-style-type: none"> charts square units on grid paper as a graphic representation of area. 468A–468B, 468–471
	<ul style="list-style-type: none"> uses counting, addition, multiplication, and arrays as the basic mathematical strategies to calculate area. 468A–468B, 468–471
	<ul style="list-style-type: none"> labels area as “square units.” 468A–468B, 468–471
	<ul style="list-style-type: none"> solves real-world problems involving area. 468B, 468, 470
	<ul style="list-style-type: none"> explains the procedures used to solve real-world problems involving estimates of area. 468B, 468
4	<ul style="list-style-type: none"> investigates and compares the concepts of area and perimeter through the use of manipulatives, including pentominoes, tiles, grid paper, and geoboards. 464A–464B, 464–467, 468A–468B, 468–471
	<ul style="list-style-type: none"> applies strategies (e.g., counting, addition, multiplication, formula [$A = L \times W$]) to determine the measurement of area. 468A–468B, 468–471
	<ul style="list-style-type: none"> estimates the area of regular and irregular polygons using graph paper, geoboards, and other tools. 468A–468B, 468–471
	<ul style="list-style-type: none"> applies the concept of area and perimeter to solve real-world problems. 472A–472B, 472–473, 474A–474B, 474–475
	<ul style="list-style-type: none"> communicates understanding through the creation of a real-world problem relating to area. 474B, 474–475

Grade	TASK ANALYSIS
5	<p>The student...</p> <ul style="list-style-type: none"> applies known formula for finding area of rectangles and squares ($A = L \times W$). 550A–550B, 550–551
	<ul style="list-style-type: none"> names area as square units including exponent notations (e.g., square inches). 526l, 548A–548B, 548–549, 550A–550B, 550–551, 552A–552B, 552–553, 554A–554B, 554–555
	<ul style="list-style-type: none"> constructs a model demonstrating area of rectangles and squares. <i>These pages prepare students to meet this task.</i> 550A–550B, 550–551
	<ul style="list-style-type: none"> determines the length of a side when the area is known. <i>These pages prepare students to meet this task.</i> 550A–550B, 550–551, 552A–552B, 552–553
	<ul style="list-style-type: none"> calculates the area of a region excluding a portion of the region (e.g., area of a lot, excluding the house on it). <i>These pages prepare students to meet this task.</i> 548A–548B, 548–549, 550A–550B, 550–551, 552A–552B, 552–553, 554A–554B, 554–555
	<ul style="list-style-type: none"> calculates the area of regular and irregular regions on a grid. 526i, 548A–548B, 553B, 552–553, 554B, 554
	<ul style="list-style-type: none"> formulates strategies through oral and written language to determine the area of regular and irregular figures on a grid. 526i, 548A–548B, 553B, 552–553, 554B, 554–555
	<ul style="list-style-type: none"> creates graphic organizers (chart, model, or table) to demonstrate the relationship between area and perimeter, using manipulatives (e.g., pentominoes, tiles, grid paper). 558B, 558–559
CAPACITY/VOLUME	
3	<ul style="list-style-type: none"> defines capacity as the amount of space to be filled (e.g., liquid in a cup, students on a school bus). 680–683
	<ul style="list-style-type: none"> demonstrates knowledge of customary (oz., cup, pt., qt., gal.) and metric (milliliters, liters) units of capacity. 680A–680B, 680–683, 684A–684B, 684–685
	<ul style="list-style-type: none"> compares customary (e.g., cups/gallon) and metric (e.g., milliliters/liter) units of capacity within a single system. 678l, 680A–680B, 680–683, 684A–684B, 684–685

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> estimates and/or solves real-world problems involving capacity. 682–683, 684B, 684–685
	<ul style="list-style-type: none"> defines volume as the amount of space occupied in the three dimensions (length, width, and height) and expressed in cubic units. 472B, 472–473
	<ul style="list-style-type: none"> investigates volume through the use of cube layering. 472A–472B, 472–473
	<ul style="list-style-type: none"> uses manipulatives to solve real-world problems involving volume. 472A–472B, 472–473
	<ul style="list-style-type: none"> solves real-world problems involving estimates of the volume of a rectangular prism. 472B, 473
4	<ul style="list-style-type: none"> understands the definition of capacity as the maximum amount that can be held by a container. 592A–592B, 592–593
	<ul style="list-style-type: none"> uses customary (ounce., $\frac{1}{4}$ cup, $\frac{1}{2}$ cup, cup, pint, quart, gallon) and metric (milliliters, liters) units of capacity. 592A–592B, 592–593, 654A–654B, 654–655
	<ul style="list-style-type: none"> converts units of capacity within the same system using one conversion (e.g., pints to gallons). 596A–596B, 596–599, 658A–658B, 658–660
	<ul style="list-style-type: none"> solves real-world problems involving measurement of capacity, labels appropriately, and explains strategies used. 592A–592B, 592–593, 654A–654B, 654–655
	<ul style="list-style-type: none"> understands volume as the amount of space occupied in three dimensions (length, width, and height) and expressed in cubic units. 476A–476B, 476–477
	<ul style="list-style-type: none"> uses concrete objects (e.g., cubes) and pictorial representations to determine the measurement of volume. 476A–476B, 476–477
	<ul style="list-style-type: none"> applies formula ($L \times W \times H = V$) or counting procedures to investigate measurement of volume in real-world problems. 476A–476B, 476–477
	<ul style="list-style-type: none"> estimates the volume of a rectangular prism using manipulatives or a graphic representation and explains reasoning. 476A–476B, 476–477

Grade	TASK ANALYSIS The student...
5	<ul style="list-style-type: none"> selects the appropriate units of measure (ounces, cups, pints, quarts, gallons, milliliters, liters, kiloliters) to solve real-world problems. 614A–614B, 614–615, 616A–616B, 616–617
	<ul style="list-style-type: none"> knows that when changing from smaller units to larger units, division is used (e.g., to convert quarts to gallons, divide by 4). 614A–614B, 614–615, 616A–616B, 616–617
	<ul style="list-style-type: none"> knows that when changing from larger units to smaller units, multiplication is used (e.g., to convert gallons to quarts multiply by 4). 614A–614B, 614–615, 616A–616B, 616–617
	<ul style="list-style-type: none"> converts within the same system, using up to two conversions (e.g., gallons to quarts to pints). 614A–614B, 614–615, 616A–616B, 616–617
	<ul style="list-style-type: none"> estimates capacity to the nearest unit. 614A–614B, 614–615, 616A–616B, 616–617
	<ul style="list-style-type: none"> demonstrates through the use of three-dimensional pictorial models how to find the volume of rectangular prisms. 610A–610B, 610–613
	<ul style="list-style-type: none"> names volume as cubic units, using words or exponents (e.g., cubic feet, ft³). 610A–610B, 610–613
	<ul style="list-style-type: none"> derives and applies formula ($L \times W \times H = V$) to solve real-world problems. 610A–610B, 610–613
	<ul style="list-style-type: none"> creates a model that represents a given volume of a rectangular prism. 610A–610B, 610–613

Grade	TASK ANALYSIS
	ANGLES
3	<ul style="list-style-type: none"> recognizes an angle as a shape made by two rays extending from a common endpoint named the vertex. 445A–445B, 444–445
	<ul style="list-style-type: none"> identifies the degree system as a measurement of an angle. <i>These pages prepare students to meet this task.</i> 445A–445B, 444–445
	<ul style="list-style-type: none"> knows that degrees can be presented in symbol ($^{\circ}$) or word (degrees). <i>These pages prepare students to meet this task.</i> 445A–445B, 444–445
	<ul style="list-style-type: none"> recognizes that a square corner forms an angle that is called a right angle, or a 90° angle. 445A–445B, 444–445
4	<ul style="list-style-type: none"> investigates common angles of 45°, 90°, 120°, and 180° (acute, right, obtuse, straight) using models and manipulatives. 440A–440B, 440–442
	<ul style="list-style-type: none"> selects and uses the appropriate tool (protractor) to measure common angles. 443
	<ul style="list-style-type: none"> applies 45°, 90°, and 180° angles as reference points for measure of other angles and justifies reasoning. <i>These pages prepare students to meet this task.</i> 440A–440B, 440–442
5	<ul style="list-style-type: none"> identifies, measures, or constructs angles in degrees, using a protractor. 332A–332B, 332–335, 349, 363
	<ul style="list-style-type: none"> identifies angles by name (e.g., acute) or their measurement (e.g., 45°) in real-world measurement settings. 332A–332B, 332–335
	<ul style="list-style-type: none"> explains how an angle is classified as acute, right, or obtuse. 332A–332B, 332–335

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Geometry
Grade Cluster: 3–5

Benchmark

MA.C.3.2.2: The student identifies and plots positive ordered pairs (whole numbers) in a rectangular coordinate system (graph).

Grade	TASK ANALYSIS
	The student...
	COORDINATE SYSTEMS
3	<ul style="list-style-type: none"> • defines horizontal and vertical directions. <i>These pages prepare students to meet this task.</i> 218A–218B, 218–221
	<ul style="list-style-type: none"> • knows that when locating ordered pairs on a grid, the rule is to locate the horizontal position first, then the vertical position. 218A–218B, 218–221
	<ul style="list-style-type: none"> • locates, identifies, and records ordered pairs of whole numbers on a grid of at least 6 x 6. 218A–218B, 218–221
	<ul style="list-style-type: none"> • plots ordered pairs of numbers on a coordinate grid of at least 6 x 6 [(e.g. (3,2); (4,1); (4,5)]. 218A–218B, 219–221
4	<ul style="list-style-type: none"> • plots ordered pairs of whole numbers on the first quadrant of a coordinate system using a 10 x 10 grid. 212A–212B, 212–215
	<ul style="list-style-type: none"> • applies understanding of coordinate systems to locating places on a street map. <i>These pages prepare students to meet this task.</i> 212A–212B, 212–215
5	<ul style="list-style-type: none"> • plots ordered pairs on the first quadrant of a coordinate system using at least a 10 x 10 grid. 174A–174B, 174–175
	<ul style="list-style-type: none"> • describes the shortest path between two ordered pairs. <i>These pages prepare students to meet this task.</i> 174A–174B, 174–175, 724A–724B, 724–727

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Geometry
Grade Cluster: 3–5

Benchmarks

MA.C.1.2.1: The student given a verbal description, draws and/or models two– and three–dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.

MA.C.3.2.1: The student represents and applies a variety of strategies and geometric properties and formulas for two- and three-dimensional shapes to solve real-world and mathematical problems.

MA.B.1.2.1: The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.

MA.B.1.2.2: The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

MA.B.3.2.1: The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.

Grade	TASK ANALYSIS
	The student...
	GEOMETRY
3	<ul style="list-style-type: none"> demonstrates an understanding of the names (circle, square, triangle, rectangle) and attributes (curves, vertices, sides, angles) of two-dimensional shapes. 450A–450B, 450–452, 454A–454B, 454–455
	<ul style="list-style-type: none"> demonstrates an understanding of the names (sphere, cube, pyramid, rectangular solid/prism, cone, cylinder) and attributes (edges, bases, faces, vertices) of three-dimensional shapes. 428A–428B, 428–431

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> identifies geometric vocabulary including points, lines, line segments, intersecting lines, parallel and perpendicular lines, right angles, and sides. 442A–442B, 442–443, 444A–444B, 444–445, 446A–446B, 446–448
	<ul style="list-style-type: none"> identifies polygons (triangle; pentagon; hexagon; quadrilaterals, including square, rectangle, parallelogram, rhombus) as closed figures whose sides are line segments. 446A–446B, 446–448
	<ul style="list-style-type: none"> recognizes a two-dimensional (plane) shape or three-dimensional (solid) shape when given a verbal description. 428A–428B, 428–430
	<ul style="list-style-type: none"> builds spatial visualization of two- or three-dimensional shapes through the use of manipulatives and models. 428A–428B, 428–431, 432A–432B, 432–433, 450A, 450, 451
	<ul style="list-style-type: none"> draws or models a two- or three-dimensional shape when given a verbal description. 428A–428B, 429–430, 431
	<ul style="list-style-type: none"> compares and applies the concepts of area and perimeter of rectangles, using concrete and graphic materials to include grids and pictures. 426J, 464A–464B, 464–466, 468A–468B, 468–470
	<ul style="list-style-type: none"> writes a description of a two- or three-dimensional figure, using appropriate geometric vocabulary. 474A–474B, 474–475
4	<ul style="list-style-type: none"> knows geometric vocabulary including parallel and perpendicular lines, sides, vertices, bases, points, lines, line segments, and circles. 43A4–434B, 434–437, 438A–438B, 438–439, 440A–440B, 440–443, 444A–444B, 444–447, 448A–448B, 448–449, 452Z–452B, 452–455, 456A–456B, 456–457, 458A–458B, 458–459
	<ul style="list-style-type: none"> defines and uses appropriate geometric vocabulary (regular polygons; irregular polygons; diameter; rays; planes; and acute, obtuse, and straight angles) to describe properties and attributes of two- and three-dimensional figures. 460A–460B, 460–461

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> draws and classifies two-dimensional figures (regular and irregular polygons) having at least eight sides. 437, 438A–438B, 438–439, 444A–444B, 444–447
	<ul style="list-style-type: none"> compares and applies the concepts of area and perimeter to solve mathematical and real-world problems. 474A–474B, 474–475
5	<ul style="list-style-type: none"> demonstrates a knowledge of geometric terms including circles; diameter; acute, right, obtuse, and straight angles; sides; bases; vertices; points; lines and line segments; parallel and perpendicular lines; rays and planes. 328A–328B, 328–331, 332A–332B, 332–335, 336A–336B, 336–337, 340A–340B, 340–341, 342A–342B, 342–345, 346A–346B, 346–348, 356A–356B, 356–357, 360A–360B, 360–362, 364A–364B, 364–367, 368A–368B, 368–370, 594A–594B, 594–597, 598A–598B, 598–601, 602A–602B, 602–603
	<ul style="list-style-type: none"> identifies, describes, and draws regular polygons (equal length of sides and equal measure of angles) and irregular polygons with at least 10 sides. 326I, 340A–340B, 340–341
	<ul style="list-style-type: none"> names and classifies triangles according to the lengths of their sides (isosceles, scalene, equilateral) and/or according to the measure of their angles (acute, right, obtuse). 326J, 342A–342B, 342–345
	<ul style="list-style-type: none"> names and classifies quadrilaterals (trapezoid, parallelogram, rectangle, rhombus, square) by the characteristics of their sides and angles. 326I, 340A–340B, 340–341, 346A–346B, 346–349
	<ul style="list-style-type: none"> identifies, constructs, and analyzes two- and three-dimensional figures (e.g., radius of a circle, faces and edges of a solid figure, intersecting lines on a plane, diagonals of polygons). 326I, 326J, 336A–336B, 336–337, 340A–340B, 340–341, 342A–342B, 342–345, 346A–346B, 346–348, 349, 371, 594A–594B, 594–597, 598A–598B, 598–601, 602A–602B, 602–603
	<ul style="list-style-type: none"> identifies a given net (a flat pattern that can be folded into a solid figure) for a solid figure. 592I, 598A–598B, 598–601

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> • constructs two- and three-dimensional figures as a strategy to solve real-world problems. 558A–558B, 558–559, 606A–606B, 606–607
	<ul style="list-style-type: none"> • explores how the area and perimeter are affected when a geometric figure is enlarged or reduced (e.g., the effect on the area of a square when the sides are doubled). <i>These pages prepare students to meet this task.</i> 540A–540B, 540–542, 550A–550B, 550–551, 552A–552B, 552–553, 554A–554B, 554–555, 675
	<ul style="list-style-type: none"> • sorts and describes in writing the attributes (e.g., line relationship, congruency, measure of angles, measure of sides) of geometric figures. 356A–356B, 356–357

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Geometry
Grade Cluster: 3–5

Benchmarks

- MA.C.2.2.1:** The student understands the concepts of spatial relationships, symmetry, reflections, congruency, and similarity.
- MA.C.2.2.2:** The student predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.
- MA.C.3.2.1:** The student represents and applies a variety of strategies and geometric properties and formulas for two- and three-dimensional shapes to solve real-world and mathematical problems.

Grade	TASK ANALYSIS
	The student...
SPATIAL RELATIONSHIPS	
3	<ul style="list-style-type: none"> • demonstrates an understanding of symmetry and reflection. 460A–460B, 460–461 • describes congruency as two- or three-dimensional figures that are the same shape and size. 456A–456B, 456–459 • distinguishes between congruency and similarity (e.g., similar figures are the same shape but are not the same size). 459 • develops an understanding of spatial relationships through the use of manipulatives and models. 456A–456B, 456–459

Grade	TASK ANALYSIS The student...
4	<ul style="list-style-type: none"> • builds an understanding of geometric spatial relationships through experiences with drawing, measuring, and constructing. 434A, 435, 438A, 440A, 441, 443, 444B, 444, 448A–448B, 448, 452A–452B, 455
	<ul style="list-style-type: none"> • determines symmetry, congruency, and reflections in geometric figures using drawings and concrete materials (e.g., pattern blocks, mirrors). 452A–452B, 452–455, 456A–456B, 456–457
	<ul style="list-style-type: none"> • creates congruent, similar, and symmetrical figures. 452A–452B, 452–454, 456A–456B, 456–457, 458A–458B, 458–459
	<ul style="list-style-type: none"> • identifies and draws lines of symmetry in two-dimensional figures. 456A–456B, 456–457
5	<ul style="list-style-type: none"> • identifies, draws, and describes similar figures, recognizing the proportional relationship between the figures. 360A–360B, 360–362
	<ul style="list-style-type: none"> • classifies two figures as symmetrical, congruent, or similar when one is rotated. 360–362, 368A–368B, 368–370
	<ul style="list-style-type: none"> • constructs a figure with multiple lines of symmetry. 368
	<ul style="list-style-type: none"> • deduces the area and/or perimeter of a complete figure when given a portion of a symmetrical figure on grid paper. <i>These pages prepare students to meet this task.</i> 540A–540B, 540–541, 548A–548B, 548–549, 550A–550B, 550–551
	<ul style="list-style-type: none"> • justifies, using oral and written language, whether a figure is similar or congruent. 360A–360B, 360–362

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Geometry
Grade Cluster: 3–5

Benchmark

MA.C.2.2.2: The student predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.

Grade	TASK ANALYSIS
	The student...
	TRANSFORMATIONS
3	<ul style="list-style-type: none"> • uses concrete materials to demonstrate an understanding of slides, flips, and turns. 456A–456B, 456–459 • knows that slides are called translations, flips are called reflections, and turns are called rotations. 456A–456B, 456–458 • explores tessellations by using the same shape to cover a surface leaving no gaps. 449 • demonstrates that turns are clockwise or counterclockwise rotations that are measured in degrees (must recognize up to 180°). 456A–456B, 459
4	<ul style="list-style-type: none"> • predicts and describes the results of flips (reflections), slides (translations), turns (rotations of 90° or 180°) and the direction (clockwise or counterclockwise) of turns using concrete and graphic materials (e.g., pattern blocks, geoboards, grids). 452A–452B, 452–455 • describes the effect of a flip, slide, or turn of a geometric figure (regular or irregular polygon with at least eight sides). 452A–452B, 452–454 • creates tessellations by using the same shape to cover a surface leaving no gaps. 454

Grade	TASK ANALYSIS The student...
5	<ul style="list-style-type: none"> demonstrates a knowledge of the effect of a single flip, slide, or turn of 90° and 180°. 364A–364B, 364–367
	<ul style="list-style-type: none"> knows that a transformation is a change in the spatial position of a geometric figure. 364A–364B, 364–367
	<ul style="list-style-type: none"> restates that a flip is a reflection, a slide is a translation, and a turn is a rotation. 364A–364B, 364–367
	<ul style="list-style-type: none"> predicts and illustrates the effect of up to two transformations (e.g., a reflection and a rotation of 90°, 180°, or 270° turning clockwise or counterclockwise). 364A–364B, 364–367
	<ul style="list-style-type: none"> explores transformations on a coordinate grid in the first quadrant by plotting ordered pairs. <i>These pages prepare students to meet this task.</i> 174A–174B, 174–175
	<ul style="list-style-type: none"> determines and verifies which shapes will or will not tessellate. 367
	<ul style="list-style-type: none"> describes in writing the location and movement of geometric figures using common language and geometric vocabulary. 364A–364B, 364–367

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Algebraic Thinking
Grade Cluster: 3–5

Benchmarks

MA.D.1.2.1: The student describes a wide variety of patterns and relationships through models, such as manipulatives, tables, graphs, rules using algebraic symbols.

MA.D.1.2.2: The student generalizes a pattern, relations, or function to explain how a change in one quantity results in a change in another.

Grade	TASK ANALYSIS
The student...	
	PATTERNS
3	<ul style="list-style-type: none"> • demonstrates an understanding of geometric and numerical patterns. 24A–24B, 24–26, 332A–332B, 332–335, 340A–340B, 340–341, 344A–344B, 344–345 • identifies the missing element in a pattern. 24A–24B, 24–26, 332A–332B, 332–335, 344A–344B, 344–345 • discovers the rule of a geometric or numerical pattern. 332A–332B, 332–335, 344A–344B, 344–345 • extends the rule of a geometric or numerical pattern up to four elements (e.g., $\diamond \square \nabla \bullet$, $\diamond \square \nabla \bullet$, $\diamond \square$, $?$, $?$) and explains the rule. 24A–24B, 24–26, 332A–332B, 332–335, 340A–340B, 340–341, 344A–344B, 344–345 • uses one operation (addition or subtraction) to extend a numerical pattern or provide a missing element (e.g., $n + 3$). 24A–24B, 24–26, 288, 340A–340B, 340–341, 344A–344B, 344–345 • solves problems by identifying numerical patterns on tables, graphs, and charts. 282, 314J, 332A–332B, 332–335, 340A–340B, 340–341, 344A–344B, 344–345, 402A, 402–403

Grade	TASK ANALYSIS The student...										
4	<ul style="list-style-type: none"> demonstrates proficiency describing, extending, and creating geometric and numerical patterns with one operation (addition and subtraction) and one missing element. 90A–90B, 90–91 										
	<ul style="list-style-type: none"> describes, extends, and creates geometric and numerical patterns with one operation (addition, subtraction, or multiplication [$6n$ or $6 \times n$]) and two or more missing elements. 90A–90B, 90–91, 256A–256B, 256–257, 366A–366B, 366–367, 406A–406B, 406, 641 										
	<ul style="list-style-type: none"> applies the appropriate rule to complete a table or chart. 140A–140B, 140–143, 164A–164B, 164–165 										
	<ul style="list-style-type: none"> creates and solves problems by identifying a predictable visual or numerical pattern (see example) and justifies reasoning. <table data-bbox="641 793 1161 871" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding-right: 10px;">Input</td> <td style="padding-right: 10px;">1</td> <td style="padding-right: 10px;">2</td> <td style="padding-right: 10px;">3</td> <td style="padding-right: 10px;">7</td> </tr> <tr> <td>Output</td> <td>\$3</td> <td>\$6</td> <td>\$9</td> <td>?</td> </tr> </table> 	Input	1	2	3	7	Output	\$3	\$6	\$9	?
Input	1	2	3	7							
Output	\$3	\$6	\$9	?							
	<ul style="list-style-type: none"> recognizes the mathematical relationships in patterns. 90A–90B, 90–91, 128B, 128–129, 136B, 136–137, 256–257, 312I, 314A–314B, 314–315, 366A–366B, 366–367, 406A–406B, 406–407, 641 										
	<ul style="list-style-type: none"> analyzes number patterns and states rules for relationships (e.g., given 1, 3, 7, 9, 13, the rule is + 2, + 4, + 2, + 4). 90A–90B, 90–91, 128B, 128–129, 136B, 136–137, 256A–256B, 256–257, 366A–366B, 366–367, 641 										
	<ul style="list-style-type: none"> discusses and analyzes the rule that applies to the pattern and justifies reasoning. 90A–90B, 90–91, 256A–256B, 256–257, 366A–366B, 366–367, 641 										

Grade	TASK ANALYSIS The student...
5	<ul style="list-style-type: none"> determines the missing elements (three or more) in a pattern or continues a pattern with three or more steps. (e.g., *, +, !, *, +, ?, ?, ?). 142–143, 144A–144B, 144–145
	<ul style="list-style-type: none"> defines an expression as a mathematical combination of numbers, variables, and operations (e.g., $5 + a$). 100A–100B, 100–103
	<ul style="list-style-type: none"> analyzes patterns on various models (e.g., graphs, T-charts, diagrams, and calendars). 106A–106B, 106–107, 176A–176B, 176–179
	<ul style="list-style-type: none"> derives a function/rule (the relationship between two sets) using the data collected on various models. 106A–106B, 106–107, 176A–176B, 176–179
	<ul style="list-style-type: none"> explains numerical and pattern generalizations using an algebraic expression (e.g., $3n + 1$). 100A–100B, 100–103, 106A–106B, 106–107
	<ul style="list-style-type: none"> discovers mathematical relationships in patterns and numbers (e.g., Fibonacci numbers, multiples, squared numbers). 141, 167, 207

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Algebraic Thinking
Grade Cluster: 3–5

Benchmarks

<p>MA.D.2.2.1: The student represents a given simple problem situation using diagrams, models, and symbolic expressions translated from verbal phrases, or verbal phrases translated from symbolic expressions, etc.</p> <p>MA.D.2.2.2: The student uses informal methods, such as physical models and graphs to solve real–world problems involving equations and inequalities.</p> <p>MA.A.3.2.1: The student understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.</p>

Grade	TASK ANALYSIS
	The student...
	SYMBOLIC EXPRESSION, INEQUALITIES AND PROBLEM SOLVING
3	<ul style="list-style-type: none"> • demonstrates that an equation is a number sentence stating that two quantities are equal. 76A–76B, 76–77, 168A–168B, 168–169 • solves word problems by writing a number sentence using symbols to represent missing elements. 76A–76B, 76–77 • substitutes numbers for symbols to discover unknown values using the strategy of guess and check (? + 2 = 5). 380A–380B, 380–381 • creates a simple word problem for a given number sentence, diagram, or model. <i>These pages prepare students to meet this task.</i> 76A–76B, 76–77 • uses models and graphs (e.g., cubes, number lines) to solve real–world problems involving equations (=) and inequalities: less than (<), greater than (>), not equal (≠). 76A–76B, 76–77

Grade	TASK ANALYSIS The student...
4	<ul style="list-style-type: none"> uses simple equations or simple inequalities ($<$, $>$, $=$, or \neq) to solve problems involving whole numbers less than or equal to 100 and decimal numbers presented as money. 100A–100B, 100–101, 166A–166B, 166–167, 688A–688B, 688–689
	<ul style="list-style-type: none"> uses a variable to represent a number in a given verbal expression (e.g., seven times a number is $7n$ or $7 \times n$). 98A–98B, 98–99
	<ul style="list-style-type: none"> uses variables to represent the unknown in problem solving situations. 98A–98B, 98–99, 690A–690B, 690–691
	<ul style="list-style-type: none"> uses physical or pictorial models and graphs (cubes, number lines) to solve equations or inequalities: greater than or equal to (\geq), less than or equal to (\leq), equal to ($=$), or not equal to (\neq). 688A–688B, 688–689, 690A–690B, 690–691, 692A–692B, 692–695
	<ul style="list-style-type: none"> solves problems using information from physical models, graphs, or tables and justifies reasoning. 696A–696B, 696–697
5	<ul style="list-style-type: none"> explores and applies the order of operations to solve numerical expressions (e.g., $3 + 4(7 - 3) \times 8 = ?$). 172A–172B, 172–173
	<ul style="list-style-type: none"> applies the symbolic representations for greater than ($>$), less than ($<$), greater than or equal (\geq), less than or equal (\leq), equal ($=$), not equal (\neq). 6–7, 12–13, 418A–418B, 418–419, 420A–420B, 420–423
	<ul style="list-style-type: none"> compares inequalities including decimals and fractions using appropriate symbolic representations (e.g., $0.5 \neq 1/3$). <i>These pages prepare students to meet this task.</i> 12A–12B, 12–13, 418A–418B, 418–419, 420A–420B, 420–423
	<ul style="list-style-type: none"> produces a solution set using a number line (e.g., $n \leq 5$, solutions 0, 1, 2, 3, 4, 5 plotted on a number line). <i>See Grade 4.</i>
	<ul style="list-style-type: none"> writes an equation using up to two operations and two variables for verbal or written problems (e.g., $x + 5 - y = 15$). 704–705, 706A–706B, 706–709
	<ul style="list-style-type: none"> solves real-world equations or inequalities using informal methods (e.g., guess and check, concrete or pictorial models, and graphs). 108A–108B, 108–109, 700A–700B, 700–701, 702A–702B, 702–703

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis & Probability
Grade Cluster: 3–5

Benchmarks

<p>MA.E.1.2.1: The student solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts.</p> <p>MA.E.1.2.3: The student analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.</p>

Grade	TASK ANALYSIS
The student...	
DATA ANALYSIS AND TECHNOLOGY	
3	<ul style="list-style-type: none"> • demonstrates an understanding of pictographs, bar graphs, and line graphs. 190J, 212A–212B, 212–215, 216A–216B, 216–217, 222A–222B, 222–223, 226A–226B, 226–227, 228A–228B, 228–230, 232A–232B, 232–233, 234–235, 236A–236B, 236–237 • identifies parts of a graph including title, labels, scales, and key. 212A–212B, 212–215, 216A–216B, 216–217, 222–223, 226–227, 228–231, 232–233, 234–235, 240, 241 • recognizes intervals of a scale on graphs. 190J, 212–215, 216–217, 222–223, 226–227, 228–231, 232–233, 234–235 • uses the key of a pictograph to interpret that the pictures may represent more than a one-to-one correspondence (e.g., 1 book = 5 books). 212A–212B, 212–215, 226A–226B, 226–227, 234 • interprets and compares information on bar graphs. 212A–212B, 212–215, 235, 237

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> interprets and compares information on a line graph with five or more categories. 222A–222B, 222–223, 235, 236
	<ul style="list-style-type: none"> applies understanding of graphs to other content areas (e.g., science and social studies) and media examples. 210, 212–215, 216–217, 221, 222A–222B, 222–223, 228B, 228–230, 232B, 232–233, 234–235, 238–239
	<ul style="list-style-type: none"> generates questions, records responses (e.g., tally marks), and chooses correct intervals to display data on a bar graph. 204A–204B, 204–207, 208A–208B, 208–211, 226A–226B, 226–227, 228A–228B, 228–230, 232A–232B, 232–235, 236A–236B, 236–237
	<ul style="list-style-type: none"> designs graphs, using appropriate spacing. 190J, 226A–226B, 226–227, 228A–228B, 228–231, 232A–232B, 232–233, 234–235, 236A–236B, 236–237
	<ul style="list-style-type: none"> draws conclusions and explains results shown on a graph; writes about conclusions and results. 212A–212B, 212–215, 216A–216B, 216–217, 222A–222B, 222–223, 234–235
	<ul style="list-style-type: none"> analyzes real-world data on various graphs generated by technology. 207, 231
	<ul style="list-style-type: none"> uses a calculator to analyze data. 621
	<ul style="list-style-type: none"> analyzes data using computer-generated graphs with real-world problems (e.g., most popular pizza topping). 207, 231
4	<ul style="list-style-type: none"> identifies and explains the purpose of different parts of a graph (title, labels, intervals, key). 204A–204B, 204–205, 208A–208B, 208–211, 222A–222B, 222–223
	<ul style="list-style-type: none"> selects appropriate title and labels for graphs. 222A–222B, 222–223
	<ul style="list-style-type: none"> analyzes data from different types of graphs, including those from content area materials and periodicals, and writes comparative statements. 204A–204B, 204–205, 206A–206B, 206–207, 208A–208B, 208–211, 216A–216B, 216–218, 220A–220B, 220–221, 222A–222B, 222–223, 226A–226B, 226–229, 230A–230B, 230–231, 232A–232B, 232–233, 536A–536B, 536–537

Grade	TASK ANALYSIS The student...
	<ul style="list-style-type: none"> generates a class survey to collect data and creates an appropriate graph to display data (pictograph, circle graph, single bar graph, double bar graph, line graph). 222A–222B, 222–223, 230A–230B, 230–231
	<ul style="list-style-type: none"> interprets and completes circle graphs, using common fractions. 536A–536B, 536–537
	<ul style="list-style-type: none"> analyzes and develops logical arguments to justify conclusions about data displays. 204A–204B, 204–205, 206A–206B, 206–207, 208A–208B, 208–211, 216A–216B, 216–218, 220A–220B, 220–221, 222A–222B, 222–223, 226A–226B, 226–229, 230A–230B, 230–231, 232A–232B, 232–233, 536A–536B, 536–537
	<ul style="list-style-type: none"> uses a calculator to verify the range and mean from a set of data. <i>These pages can be adapted for use with a calculator.</i> 226A–226B, 226–227, 404A–404B, 404–405
	<ul style="list-style-type: none"> uses computer applications to examine and evaluate data. 219
	<ul style="list-style-type: none"> uses computer applications to construct graphs. 219
5	<ul style="list-style-type: none"> demonstrates a knowledge of graphs and models used to accurately display data. 262A–262B, 262–265, 266A–266B, 266–269, 270A–270B, 270–273, 274–275, 276A–276B, 276–278, 286A–286B, 286–287, 288A–288B, 288–291, 292A–292B, 292–293
	<ul style="list-style-type: none"> chooses the appropriate model or graph in real-life settings (e.g., single line graph, single bar graph, double bar graph, stem-and-leaf plot, Venn diagram, circle graph, pictograph, histogram) for displaying data. 288A–288B, 288–291
	<ul style="list-style-type: none"> illustrates a circle graph as parts equaling a whole (e.g., 100%, 1.0, 100/100). 286A–286B, 286–287
	<ul style="list-style-type: none"> interprets and completes a circle graph using common fractions, decimals, and percents. 286A–286B, 286–287
	<ul style="list-style-type: none"> develops from data a model or a graph including titles, labels, scales, and intervals accurately displayed. 276A–276B, 276–278

Grade	TASK ANALYSIS
	<p>The student...</p> <ul style="list-style-type: none"> formulates and writes comparative statements derived from a model or graph. <p>292A–292B, 292–293</p>
	<ul style="list-style-type: none"> demonstrates the knowledge of using a calculator and/or computer to determine and examine the range and mean. <p>282A–282B, 282–285</p>
	<ul style="list-style-type: none"> constructs labeled graphs on a computer. <p>273</p>
	<ul style="list-style-type: none"> uses computer-generated spreadsheets to record and display real-world data. <p>273</p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis & Probability
Grade Cluster: 3–5

Benchmarks

MA.E.1.2.2: The student determines range, mean, median, and mode from sets of data.

MA.E.3.2.1: The student designs experiments to answer class or personal questions, collects information, and interprets the results using statistics (range, mean, median, and mode) and pictographs, charts, bar graphs, circle graphs, and line graphs.

Grade	TASK ANALYSIS
	The student...
	DATA ANALYSIS
3	<ul style="list-style-type: none"> • uses concrete materials to display data and identify range, median, mean, and mode. 211
	<ul style="list-style-type: none"> • defines range as the difference between the greatest and least numbers in a group of numbers (e.g., from data set of 2, 3, 4, 4, 7, the range is 2 to 7, with a difference of 5). 208
	<ul style="list-style-type: none"> • defines median as the middle number in a group of numbers, when the numbers are arranged from least to greatest (e.g., 2, 3, <u>4</u>, 4, 7). 211
	<ul style="list-style-type: none"> • uses manipulatives to explore the definition of mean (an average found by adding all the elements in a set of data and then dividing that sum by the number of elements). 211
	<ul style="list-style-type: none"> • defines mode as the most frequently occurring element in a set of data • (e.g., mode = 4 from set 2, 3, 4, 4, 7). 208A–208B, 208–210, 211
	<ul style="list-style-type: none"> • determines range, mean, median, and mode from sets of data. 208A–208B, 208–210, 211

Grade	TASK ANALYSIS The student...
4	<ul style="list-style-type: none"> demonstrates an understanding of mean, median, and mode from a set of data. 226A–226B, 226–229
	<ul style="list-style-type: none"> defines mean as an average found by adding all the elements in a set of data and then dividing that sum by the number of elements (e.g., $2 + 3 + 4 + 4 + 7 = 20 \div 5 = 4$). 404A–404B, 404–405
	<ul style="list-style-type: none"> determines the range on a line graph and from a set of numerical data. 229
5	<ul style="list-style-type: none"> displays range, median, and mode on a stem-and-leaf plot. <i>These pages prepare students to meet this task.</i> 270A–270B, 270–273
	<ul style="list-style-type: none"> calculates the mean using the data from a stem-and-leaf plot. 285
	<ul style="list-style-type: none"> analyzes range, mean, median, and mode to predict outcomes in real-world situations. 270, 272, 282A–282B, 282–285
	<ul style="list-style-type: none"> justifies in writing the use of the data to make predictions. 292A–292B, 292–293

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis & Probability
Grade Cluster: 3–5

Benchmarks

- MA.E.2.2.1:** The student uses models, such as tree diagrams, to display possible outcomes and to predict events.
- MA.E.2.2.2:** The student predicts the likelihood of simple events occurring.

Grade	TASK ANALYSIS
	The student...
	PROBABILITY
3	<ul style="list-style-type: none"> • determines the number of possible combinations up to eight or more given items and displays them in an organized way (e.g., list possible combinations of three shirts and two pairs of pants). 33, 141, 143, 381, 527, 576-577, 578A, 578-579, 645 • represents all possible outcomes for a particular probability or event using models such as organized charts or lists. 704A, 704-707, 709, 725 • identifies and records the possible outcome of simple experiments using concrete materials (e.g., spinners, marbles in a bag, coin toss). 678J, 703, 704A–704B, 704–707 • calculates the probability of a particular event occurring from a set of all possible outcomes. 703, 704A–704B, 704–707 • determines which outcomes are impossible, least likely, equally likely, most likely, or certain in situations (e.g., spinning red is equally likely to occur when a spinner is divided equally among red, blue, and green). 700A–700B, 700–701, 707

Grade	TASK ANALYSIS The student...
4	<ul style="list-style-type: none"> determines the number of possible outcomes of given items (up to 10) and displays them using organized lists, charts, or tree diagrams (e.g., list all possible combinations of three types of ice cream and three toppings). 704A–704B, 704–705
	<ul style="list-style-type: none"> calculates from a set of all possible outcomes the probability of a particular event occurring. 704A–704B, 704–705, 706A–706B, 706–709
	<ul style="list-style-type: none"> predicts and determines which outcomes are most likely and/or least likely to occur and expresses those outcomes as fractions (e.g., on a spinner numbered 1–5, an odd number is the most likely to occur 3 out of 5 times or $\frac{3}{5}$). 700A–700B, 700–703, 710A–710B, 710–711
	<ul style="list-style-type: none"> conducts simple experiments with manipulatives (e.g., spinners, number cubes, coins) to test predictions. 709, 710A–710B, 710–711
5	<ul style="list-style-type: none"> demonstrates the knowledge of predicting and explaining at least 10 possible outcomes. 258J, 296A–296B, 296–299
	<ul style="list-style-type: none"> represents up to 12 possible outcomes on a tree diagram or organized list. 300A–300B, 300–301
	<ul style="list-style-type: none"> uses a tree diagram or organized list to show a combination as a selection of elements from a larger set in which the order does not matter. 302A–302B, 302–305
	<ul style="list-style-type: none"> uses a tree diagram or organized list to show a permutation as a possible arrangement of a group of objects in which the order does matter. 302A–302B, 302–305
	<ul style="list-style-type: none"> calculates the probability (likelihood) of a particular event occurring. 296A–296B, 296–299, 302A–302B, 302–305
	<ul style="list-style-type: none"> explains and predicts likely outcomes expressed as ratios (e.g., 4:5, 4:5). <i>These pages prepare students to meet this task.</i> 646A–646B, 646–647, 648A–648B, 648–651, 652A–652B, 652–653

Grade	TASK ANALYSIS
	<p data-bbox="391 268 607 302">The student...</p> <ul data-bbox="391 317 1463 386" style="list-style-type: none"> <li data-bbox="391 317 1463 386">• categorizes outcomes based on an activity as impossible, unlikely, equally likely, likely, and certain. <p data-bbox="391 386 704 422">296A–296B, 296–299</p>
	<ul data-bbox="391 432 1300 466" style="list-style-type: none"> <li data-bbox="391 432 1300 466">• draws conclusions in writing based on outcome models. <p data-bbox="391 466 1029 497">300A–300B, 300–301, 302A–302B, 302–305</p>

**Scott Foresman – Addison Wesley Mathematics
to the
OCPS Curriculum, Instruction, Assessment Alignment**

Subject Area: Mathematics
Strand: Data Analysis & Probability
Grade Cluster: 3–5

Benchmarks

<p>MA.E.3.2.1: The student designs experiments to answer class or personal questions, collects information, and interprets the results using statistics (range, mean, median, and mode) and pictographs, charts, bar graphs, circle graphs, and line graphs.</p> <p>MA.E.3.2.2: The student uses statistical data about life situations to make predictions and justifies reasoning.</p>
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Grade	TASK ANALYSIS
	The student...
	RANGE, MEAN, MEDIAN, AND MODE
3	<ul style="list-style-type: none"> • designs a survey, collects data, and displays data on appropriate graph • (e.g., pictograph, single bar graph, line graph). 190J, 204A–204B, 204–207, 208A–208B, 208–210, 211, 212A–212B, 212–215, 226A–226B, 226–227, 228A–228B, 228–230, 231, 232A–232B, 232–233, 236A–236B, 236–237
	<ul style="list-style-type: none"> • Explains results of graphs, using mean, mode, median, and range. 208A–208B, 208–210, 211, 212A–212B, 212–215, 222A–222B, 222–223
	<ul style="list-style-type: none"> • uses statistical data (mean, median, mode) to make predictions and generalizations. 208A–208B, 208–210, 211, 212A–212B, 212–215, 222A–222B, 222–223, 226A–226B, 226–227, 228A–228B, 228–229
4	<ul style="list-style-type: none"> • generates a class survey to collect data and creates an appropriate graph to display data (e.g., pictograph, single bar graph, double bar graph, line graph, circle graph). 230A–230B, 230–231
	<ul style="list-style-type: none"> • determines appropriate statistical data (range, mean, median, mode) from data display and justifies reasoning. 226A–226B, 226–229
	<ul style="list-style-type: none"> • formulates and explains generalizations and makes predictions from a data sampling based on real-world situations. 230A–230B, 230–231

Grade	TASK ANALYSIS The student...
5	<ul style="list-style-type: none"> • demonstrates the ability to explain the statistical results of a small targeted population. 258I, 260A–260B, 260–261, 282A–282B, 282–285
	<ul style="list-style-type: none"> • describes why a sample group was chosen to represent a larger population. 260A–260B, 260–261, 282A–282B, 282–285
	<ul style="list-style-type: none"> • interprets results, using statistical data. 258I, 260A–260B, 260–261, 282A–282B, 282–285
	<ul style="list-style-type: none"> • predicts in writing the trends, using statistical data. 260A–260B, 260–261, 282A–282B, 282–285