

A Correlation of

SCOTT FORESMAN • ADDISON WESLEY

# Mathematics

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to the

# Waterloo School District Objectives Grades K-5



G/M-222

## Introduction

This document demonstrates how **Scott Foresman – Addison Wesley Mathematics** meets the objectives of the Waterloo School District. Correlation page references are to the Teacher's Edition, which contains facsimile Student 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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**Scott Foresman – Addison Wesley Mathematics  
to the  
Waterloo School District Objectives**

**Kindergarten – Grade Two**

**Standard 1: NUMBERS AND OPERATIONS**

All Students will understand and represent numbers, the relationship among numbers, and the meaning of operations in order to compute fluently and make reasonable estimates.

**Benchmark 1:** Students will select and apply appropriate numerical representations.

**MTH.S1.B1.100: Count, order, read, and write the numbers and words from one to 100.**

- K:** 53A-53B, 53-54, 55A-55B, 55-56, 57A-57B, 57-58, 59A-59B, 59-60, 69A-69B, 69-70, 77A-77B, 77-78, 79A-79B, 79-80, 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 93A-93B, 93-94, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108, 109A-109B, 109-110, 111A-111B, 111-112
- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18
- 2:** 81A-81B, 81-82, 83A-83B, 83-84, 393A-393B, 393-394, 395A-395B, 395-396

**MTH.S1.B1.101: Name ordinal positions of first through 20<sup>th</sup>, next last, and beginning, middle, and end**

- K:** 213A-213B, 213-214, 215A-215B, 215-216
- 1:** 267A-267B, 267-268
- 2:** 103A-103B, 103-104

**MTH.S1.B1.102: Match number through 31 with corresponding sets of objects (one-to-one correspondence)**

- K:** 53A-53B, 53-54, 57A-57B, 57-58, 77A-77B, 77-78, 79A-79B, 79-80, 83A-83B, 83-84, 103A-103B, 103-104, 115A-115B, 115-116
- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18

**MTH.S1.B1.103: Recognize and generate equivalent forms for the same number, (e.g., ten blocks = 10 = ten = 5 + 5 = 15 – 5 = 1 + 9 = 10, 2 + 8 = 10)**

- K:** 76A-76B, 76-77, 160A-160B, 160-163, 408A-408B, 408-409
- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18
- 2:** 504A-504B, 504-505, 536A-536B, 536-537

**MTH.S1.B1.104: Count and group sets of 2, 5, 10 to 100 (tally marks)**

- 1:** 255A-255B, 255-256, 257A-257B, 257-258
- 2:** 99A-99B, 99-100, 467A-467B, 467-468

**MTH.S1.B1.105: Determine more/greater, less/fewer, greater/least than any given number, (e.g., two more than 24; ten less than 36)**

- K:** 119A-119B, 119-120
- 1:** 249A-249B, 249-250
- 2:** 401A-401B, 401-402

**MTH.S1.B1.106: Recognize and describe number patterns and multiples of two, fives, and tens to 100 and beyond using grids, charts, etc., (e.g., 12, 22, 32)**

- K:** 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46
- 1:** 3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262
- 2:** 99A-99B, 99-100, 467A-467B, 467-468

**MTH.S1.B1.107: Classify number as even or odd**

- 1:** 265A-265B, 265-266
- 2:** 101A-101B, 101-102

**MTH.S1.B1.108: Group identify and write 2 and 3-digit numbers when given objects, illustrations and place value model (including value of zero)**

- K:** Preparation: 53A-53B, 53-54, 57A-57B, 57-58, 77A-77B, 77-78, 79A-79B, 79-80, 83A-83B, 83-84, 103A-103B, 103-104, 115A-115B, 115-116, 287A-287B, 287-288, 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296
- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 281A-281B, 281-282, 283A-283B, 283-284, 285A-285B, 285-286, 287A-287B, 287-288
- 2:** 3A-3B, 3-4, 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86

**MTH.S1.B1.109: Represent numbers up to 100 in flexible ways using a variety of materials, (e.g. 23 as 23 ones, 1 ten and 13 ones, and/or 2 tens and 3 ones)**

- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18
- 2:** 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 95A-95B, 95-96, 101A-101B, 101-102, 103A-103B, 103-104

**MTH.S1.B1.110: Read, write, and identify place values of whole number through 1,000 using standard and expanded form**

- 1:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 281A-281B, 281-282, 283A-283B, 283-284, 285A-285B, 285-286, 287A-287B, 287-288
- 2:** 3A-3B, 3-4, 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86

**MTH.S1.B1.111: Know and use the appropriate symbol, <, >, =, or ≠**

- K:** 63A-63B, 63-64, 87A-87B, 87088, 89A-89B, 89-90, 121A-121B, 121-122  
**1:** 29A-29B, 29-30, 297A-297B, 297-298  
**2:** 15A-15B, 15-16, 91A-91B, 91-92, 399A-399B, 399-400, 409A-409B, 409-410

**MTH.S1.B1.112: Identify a fraction as an equal part of a whole or equal part of a group**

- K:** 213A-213B, 213-214, 215A-215B, 215-216  
**1:** 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190  
**2:** 269A-269B, 269-270, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278

**MTH.S1.B1.113: Recognize that all fractions have a numerator and a denominator**

- 1:** 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190  
**2:** 269A-269B, 269-270, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278

**MTH.S1.B1.114: Show relationships and equivalencies of simple fractions: whole, halves, thirds, and fourths, (i.e.,  $\frac{1}{2} = \frac{2}{4}$ ,  $1 = \frac{2}{2}$ ,  $\frac{3}{3}$ ,  $\frac{4}{4}$ )**

- 1:** 183A-183B, 183-184, 185A-185B, 185-186  
**2:** 269A-269B, 269-270, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278

**Benchmark 2:** Students will solve problems, compute fluently, and make reasonable estimates

**MTH.S1.B2.100: Model, represent, and explain addition as combining sets (part + part = whole) and counting on**

- K:** 225A-225B, 225-226, 227A-227B, 227-228, 229A-229B, 229-230, 231A-231B, 231-232, 235A-235B, 235-236, 237A-237B, 237-238  
**1:** 45A-45B, 45-46,

**MTH.S1.B2.101: Use basic addition terms and symbols correctly: add, plus, sum, addend, +, =**

- K:** 251A-251B, 251-253, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258  
**1:** 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108  
**2:** 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54

**MTH.S1.B2.102: Recognize words and phrases that signal an appropriate operation (e.g., all together, how many less than, twice as many, double the amount, split in thirds, differences, compare, half as many) and solve problems accordingly**

- K:** 251A-251B, 251-253, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278
- 1:** 417A-417B, 417-418, 419A-419B, 419-420, 425A-425B, 425-426, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440; 459A-459B, 459-460, 461A-461B, 461-462, 463A-463B, 463-464, 465A-465B, 465-466, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476, 477A-477B, 477-478
- 2:** 135A-135B, 135-136, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 145A-145B, 145-146, 147A-147B, 147-148, 149A-149B, 149-150, 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 191A-191B, 191-192, 193A-193B, 193-194

**MTH.S1.B2.103: Explain the properties of addition (identity: commutative, e.g.  $8+0=8$  and  $0+8=8$ ;  $1+3=3+1$ )**

- 1:** 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108, 129A-129B, 129-130
- 2:** 5A-5B, 5-6, 9A-9B, 9-10, 17A-17B, 17-18

**MTH.S1.B2.104: Select and use a variety of strategies of addition of basic facts, (i.e. count on by one, two, or three; make ten, doubles, doubles plus or minus one)**

- K:** 251A-251B, 251-253, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258
- 1:** 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108
- 2:** 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54

**MTH.S1.B2.105: Know basic addition facts with sums to 20**

- 1:** 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108
- 2:** 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54

**MTH.S1.B2.106: Write and solve number sentences involving addition using horizontal and vertical notation**

- K:** 255A-255B, 255-256
- 1:** 47A-47B, 47-48
- 2:** 5A-5B, 5-8, 9A-9B, 9-10, 17A-17B, 17-18

**MTH.S1.B2.107: Add three numbers with sums to 20**

- 1: 47A-47B, 47-48  
2: 5A-5B, 5-8, 9A-9B, 9-10, 17A-17B, 17-18

**MTH.S1.B2.108: Solve problems with 2 digits or more, 2 or more addends with or without regrouping**

- 1: 459A-459B, 459-460, 461A-461B, 461-462, 463A-463B, 463-464, 465A-465B, 465-466  
2: 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182

**MTH.S1.B2.109: Model, represent, and explain subtraction as the difference between two numbers and as a means to compare numbers**

- K: 245A-245B, 245-246, 247A-247B, 247-248, 265A-265B, 265-266, 267A-267B, 267-268, 269A-269B, 269-270  
1: 61A-61B, 61-62, 75A-75B, 75-76  
2: 15A-15B, 15-16

**MTH.S1.B2.110: Use basic subtraction terms and symbols correctly: take-away, minus, difference, part-to-whole, -, and =**

- K: 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278  
1: 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 417A-417B, 417-418, 419A-419B, 419-420, 425A-425B, 425-426, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440  
2: 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66

**MTH.S1.B2.111: Know basic subtraction facts of whole numbers from 20**

- 1: 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 417A-417B, 417-418, 419A-419B, 419-420, 425A-425B, 425-426, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440  
2: 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66

**MTH.S1.B2.112: Write and solve number sentences involving subtraction using horizontal and vertical notation**

- K: 275A-275B, 275-276  
1: 63A-63B, 63-64  
2: 23A-23B, 23-24, 25A-25B, 25-26, 27A-27B, 27-28, 29A-29B, 29-30, 57A-57B, 57-58

**MTH.S1.B2.113: Recognize and describe the inverse relationship between addition and subtraction (fact families)**

- 1: 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142  
2: 65A-65B, 65-66



**MTH.S1.B2.114: Determine the value of missing numbers in addition and subtraction number sentences**

1: 261A-261B, 261-262

2: Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468

**MTH.S1.B2.115: Solve two- and three-digit subtraction with and without regrouping (using zero)**

1: 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476, 477A-477B, 477-478

2: 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 191A-191B, 191-192, 193A-193B, 193-194

**MTH.S1.B2.116: Use a problem solving plan that includes understanding the problem, planning a strategy to solve the problem, solving the problem, and checking the answer**

K: 251A-251B, 251-252, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278

1: 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108, 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 417A-417B, 417-418, 419A-419B, 419-420, 425A-425B, 425-426, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440; 459A-459B, 459-460, 461A-461B, 461-462, 463A-463B, 463-464, 465A-465B, 465-466, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476, 477A-477B, 477-478

2: 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54, 57A-57B, 57-58, 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66, 135A-135B, 135-136, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 145A-145B, 145-146, 147A-147B, 147-148, 149A-149B, 149-150, 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 191A-191B, 191-192, 193A-193B, 193-194

**MTH.S1.B2.117: Solve story and picture problems using one step and multistep processes**

K: 251A-251B, 251-252, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278

1: 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108, 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 417A-417B, 417-418, 419A-

419B, 419-420, 425A-425B, 425-426, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440; 459A-459B, 459-460, 461A-461B, 461-462, 463A-463B, 463-464, 465A-465B, 465-466, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476, 477A-477B, 477-478

- 2: 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54, 57A-57B, 57-58, 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66, 135A-135B, 135-136, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 145A-145B, 145-146, 147A-147B, 147-148, 149A-149B, 149-150, 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 191A-191B, 191-192, 193A-193B, 193-194

**MTH.S1.B2.118: Identify missing information and /or too much information in problems**

- 1: 99A-99B, 99-100  
2: 233A-233B, 233-234

**MTH.S1.B2.119: Model, represent, and explain multiplication as repeated addition and skip counting using arrays**

- 2: 467A-467B, 467-478, 469A-469B, 469-470

**MTH.S1.B2.120: Use basic multiplication terms and symbols,  $\times$**

- 2: 467A-467B, 467-478, 469A-469B, 469-470, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476

**MTH.S1.B2.121: Demonstrate the properties of multiplication**

- 2: 467A-467B, 467-478, 469A-469B, 469-470, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476

**MTH.S1.B2.122: Know and use basic multiplication facts 0 -10 using vertical and horizontal notation**

- 2: 467A-467B, 467-478, 469A-469B, 469-470, 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476

**MTH.S1.B2.123: Multiply two digit or larger numbers by single-digit numbers with and without regrouping**

- 2: 471A-471B, 471-472, 473A-473B, 473-474, 475A-475B, 475-476

**MTH.S1.B2.124: Model, represent, and explain division as sharing equally and repeated subtraction**

- 1: Preparation : 61-62  
2: 483A-483B, 483-484, 485A-485B, 485-486

**MTH.S1.B2.125: Use basic division terms and symbols,  $\div$  and  $\overline{)}$**

- 2: 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66

**MTH.S1.B2.126: Knows basic division facts**

2: 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66

**MTH.S1.B2.127: Determine appropriate operation in order to solve an equation, (e.g.  $8 \square 2 = 16$ )**

1: 261A-261B, 261-262

2: Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468

**MTH.S1.B2.128: Estimate whether a group of objects is less/fewer than, greater than, or about the same as reference set**

K: 119A-119B, 119-120

1: 249A-249B, 249-250

2: 401A-401B, 401-402

**MTH.S1.B2.129: Estimate by rounding to the nearest 10's and 100's using 2 and 3-digit numbers**

1: 141A-141B, 141-142, 249A-249B, 249-250, 439A-439B, 439-440

2: 141A-141B, 141-142, 149A-149B, 149-150, 191A-191B, 191-192, 229A-229B, 229-230, 429A-429B, 429-430, 445A-445B, 445-446

**MTH.S1.B2.130: Estimate to determine the reasonableness of an answer in addition and subtraction**

1: 141A-141B, 141-142, 439A-439B, 439-440

2: 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 191A-191B, 191-192, 193A-193B, 193-194, 227A-227B, 227-228

**Standard 2: ALGEBRA**

All students will understand and use algebraic concepts, symbols, and graphic representations of numbers, patterns, relationship and functions to analyze and solve mathematical problems.

**Benchmark 1:** Students will recognize, describe, and analyze patterns and functional relationships

**MTH.S2.B1.100: Verbalize and demonstrate patterns in chants, rhymes, rhythms, and songs**

K: 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46

**MTH.S2.B1.101: Determine and extend repeating, sequential, and growing patterns and explain the reasoning behind the sequence, (e.g., symbols, shapes, designs, pictures)**

**K:** 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46

**1:** 3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262

**2:** 99A-99B, 99-100, 467A-467B, 467-468

**MTH.S2.B1.102: Determine missing number(s) in a given pattern regardless of position of the unknown(s),    4, 6, 8,    , 12,**

**K:** 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46

**1:** 3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262

**2:** 99A-99B, 99-100, 467A-467B, 467-468

**MTH.S2.B1.103: Define function as the relationship between two quantities in which one quantity depends on the other**

**1:** 27A-27B, 27-28, 29A-29B, 29-30, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262

**2:** 157A-157B, 157-158, 413A-413B, 413-414

**MTH.S2.B1.104: Represent an unknown quantity depends on the other**

**1:** 261A-261B, 261-262

**2:** Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468

**MTH.S2.B1.105: Write and evaluate an expression from phrases and word problems**

**2:** Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468

**MTH.S2.B1.106: Demonstrate an equation is a number sentence, using the equal sign, to show two expressions have the same value (e.g.,  $3 + 1 = 2 + 2$ ,  $4 + 1 = 6 - 1$ )**

**1:** 261A-261B, 261-262

**2:** Preparation: 99A-99B, 99-100, 413A-413B, 413-414, 467A-467B, 467-468

**MTH.S2.B1.107: Plot and identify ordered pairs on a coordinate grid (vertical and horizontal number lines)**

**2:** Related material: 325A-325B, 325-326

**Standard 3: GEOMETRY**

All students will use spatial relationships and concepts of geometry to describe and analyze characteristics, properties, and patterns among shapes and objects.

**Benchmark 1:** Students will describe characteristics and properties of geometric shapes.

**MTH.S3.B1.100: Sort and classify familiar plane and solid objects by common attributes, and explain which attributes are being used for classification (i.e., color, position, shape, size, roundness, or number of corners).**

**K:** 11A-11B, 11-12, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18

**1:** 307A-307B, 307-308

**MTH.S3.B1.101: Identify vertical and horizontal lines**

**1:** 157A-157B, 157-158, 159A-159B, 159-160, 161A-161B, 161-162, 165A-165B, 165-166, 167A-167B, 167-168

**2:** 247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256

**MTH.S3.B1.102: Identify, describe, and construct plane geometric figures**

**K:** 197A-197B, 197-198, 199A-199B, 199-200, 201A-201B, 201-202, 203A-203B, 203-204, 205A-205B, 205-206

**1:** 157A-157B, 157-158, 159A-159B, 159-160, 161A-161B, 161-162, 165A-165B, 165-166, 167A-167B, 167-168

**2:** 247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256

**MTH.S3.B1.103: Identify, describe, and compare solids (3-dimensional)**

**K:** 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46

**1:** 3A-3B, 3-4, 5A-5B, 5-6, 255A-255B, 255-256, 257A-257B, 257-258, 261A-261B, 261-262

**2:** 99A-99B, 99-100, 467A-467B, 467-468

**Benchmark 2:** Students will recognize and describe spatial and symmetrical relationships

**MTH.S3.B2.100: Use positional words to arrange and describe aspects in space by proximity, position, and direction, (e.g. before/after, inside/outside, top/bottom, above/below, over/under/next/beside/between, in front/in back/behind, near/close/far, up/down, left/right)**

**K:** 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-10

**1:** 169A-169B, 169-170

**MTH.S3.B2.101: Identify and construct plane figures that are same shape and size (congruent) and same shape, different size (similar)**

**K:** Preparation: 199A-199B, 199-200

**1:** 169A-169B, 169-170

**2:** 257A-257B, 257-258

**MTH.S3.B2.102: Identify congruent shapes in any position using rotation (flips, turns, slide)**

**2:** 259A-259B, 259-260

**MTH.S3.B2.103: Solve problems by visualizing and using spatial reasoning, (e.g. draw from memory a pathway from one location to another location on the same floor, draw an unfolded box)**

**1:** 157A-157B, 157-158, 159A-159B, 159-160, 161A-161B, 161-162, 165A-165B, 165-166, 167A-167B, 167-168

**2:** 247A-247B, 247-248, 249A-249B, 249-250, 255A-255B, 255-256

**MTH.S3.B2.104: Recognize and create shapes that have symmetry (vertical, horizontal, diagonal)**

**1:** 171A-171B, 171-172

**2:** 259A-259B, 259-260

#### **Standard 4: MEASUREMENT**

All students will understand units, systems and processes of measurement and apply appropriate techniques, tools, and formulas to measure quantities and attributes of objects.

**Benchmark 1:** Students will select and use standard units of customary and metric measurements.

**MTH.S4.B1.100: Use a variety of nonstandard units to measure the attributes of length, height, width, volume, and weight**

**K:** 133A-133B, 133-134, 135A-135B, 135-136, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 145A-145B, 145-146, 147A-147B, 147-148, 149A-149B, 149-150, 151A-151B, 151-152, 153A-153B, 153-154, 171A-171B, 171-172, 173A-173B, 173-174, 175A-175B, 175-176

**1:** 365A-365B, 365-366, 369A-369B, 369-370, 371A-371B, 371-372, 373A-373B, 373-374, 375A-375B, 375-376, 383A-383B, 383-384, 385A-385B, 385-386, 387A-387B, 387-388, 389A-389B, 389-390, 391A-391B, 391-392, 393A-393B, 393-394, 397A-397B, 397-398

**2:** 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348, 355A-355B, 355-356, 357A-357B-357-358, 365A-365B, 365-366, 367A-367B, 367-368, 369A-369B, 369-370

**MTH.S4.B1.101: Use measurement vocabulary when comparing and arranging objects by: Length: shorter-longer, Height: shorter-taller; Width: narrower-wider; Volume: more-less; Weight: heavier-lighter; Equivalent**

**K:** 133A-133B, 133-134, 135A-135B, 135-136, 137A-137B, 137-138, 145A-145B, 145-146, 149A-149B, 149-150

**1:** 365A-365B, 365-366, 383A-383B, 383-384, 389A-389B, 389-390

**2:** 341A-341B, 341-342, 353A-353B, 353-354, 363A-363B, 363-364

**MTH.S4.B1.102: Estimate then measure the length, height, and width of an object using appropriate units of measure (customary and metric)**

**1:** 365A-365B, 365-366, 371A-371B, 371-372, 373A-373B, 373-374, 375A-375B, 375-376, 383A-383B, 383-384, 389A-389B, 389-390

**2:** 297A-297B, 297-298, 341A-341B, 341-342

**MTH.S4.B1.103: Describe relationship among inches, feet, and yards**

**1:** 365A-365B, 365-366, 371A-371B, 371-372, 373A-373B, 373-374, 375A-375B, 375-376

**2:** 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348

**MTH.S4.B1.104: Estimate then measure capacity (by comparing the units of cup, pint, quart, gallon, and liter)**

**1:** 383A-383B, 383-384, 385A-385B, 385-386, 387A-387B, 387-388, 389A-389B, 389-390

**2:** 355A-355B, 355-356, 357A-357B-357-358, 365A-365B, 365-366, 367A-367B, 367-368

**MTH.S4.B1.105: Know weight measures the heaviness of objects using a scale (i.e. customary measures of ounces and pounds, grams/kilo)**

**1:** 391A-391B, 391-392, 393A-393B, 393-394

**2:** 355A-355B, 355-356, 357A-357B-357-358, 365A-365B, 365-366, 367A-367B, 367-368

**MTH.S4.B1.106: Know that one dozen equals twelve items**

**1:** 209A-209B, 209-210, 211A-211B, 211-212

**2:** 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296

**Benchmark 2:** Students will use clocks and calendars to measure time

**MTH.S4.B2.100: Relate time to events: before/after; first/next/last; morning/afternoon/evening; yesterday/today/tomorrow**

**K:** 163A-163B, 163-164

**1:** 225A-225B, 225-226, 227A-227B, 227-228

**MTH.S4.B2.101: Measure time in hour, half hour, quarter hour, and 5 minute intervals using analog and digital clocks**

**K:** 173A-173B, 173-174, 175A-175B, 175-176

**1:** 209A-209B, 209-210, 211A-211B, 211-212

**2:** 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296

**MTH.S4.B2.102: Use written notation to indicate time of day in hour, minutes, and a.m. or p.m. including noon and midnight**

**1:** 209A-209B, 209-210, 211A-211B, 211-212

**2:** 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296

**MTH.S4.B2.103: Name days of week and months of year in order**

**K:** 161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168

**1:** 225A-225B, 225-226, 227A-227B, 227-228

**MTH.S4.B2.104: Use written notation to indicate date, (i.e. month/day/year, month-day-year)**

**K:** 161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168

**1:** 225A-225B, 225-226, 227A-227B, 227-228

**2:** 303A-303B, 303-304

**MTH.S4.B2.105: Estimate and measure time in minutes, hours, weeks, months, and years**

**K:** 161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168, 173A-173B, 173-174, 175A-175B, 175-176

**1:** 209A-209B, 209-210, 211A-211B, 211-212, 225A-225B, 225-226, 227A-227B, 227-228

**2:** 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296, 303A-303B, 303-304

**MTH.S4.B2.106: Identify equivalent periods of time including seconds, minutes, hours and a day**

**1:** 209A-209B, 209-210, 211A-211B, 211-212

**2:** 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296

**MTH.S4.B2.107: Calculate duration of time intervals (elapsed time) in hours and hours and half-hours, (e.g. 11:00am to 4:30pm)**

**2:** 299A-299B, 299-300



**Benchmark 3:** Students will demonstrate understanding of U.S. currency money system

**MTH.S4.B3.100: Identify and tell value of penny, nickel, dime, and quarter,  $\frac{1}{2}$  dollar, and dollar**

**K:** 179A-179B, 179-180, 183A-183B, 183-184

**1:** 331A-331B, 331-332, 333A-333B, 333-334, 335A-335B, 335-336, 337A-337B, 337-338, 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**MTH.S4.B3.101: Determine the value of multiples of pennies, nickels, dimes, and quarters, (e.g. four nickels = 20 cents)**

**K:** 179A-179B, 179-180, 183A-183B, 183-184

**1:** 331A-331B, 331-332, 333A-333B, 333-334, 335A-335B, 335-336, 337A-337B, 337-338, 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**MTH.S4.B3.102: Identify equivalent values of money among pennies, nickels, dimes, quarters, and dollars**

**K:** 179A-179B, 179-180, 183A-183B, 183-184

**1:** 331A-331B, 331-332, 333A-333B, 333-334, 335A-335B, 335-336, 337A-337B, 337-338, 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**MTH.S4.B3.103: Identify, show, and write value of combination of coins and bills using appropriate symbols**

**K:** 179A-179B, 179-180, 183A-183B, 183-184

**1:** 331A-331B, 331-332, 333A-333B, 333-334, 335A-335B, 335-336, 337A-337B, 337-338, 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**MTH.S4.B3.104: Round money amounts to the nearest dollar**

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**MTH.S4.B3.105: Estimate and determine whether given amounts of money are sufficient to make specific purchases**

**2:** 109A-109B, 109-110, 111A-111B, 111-112

**Standard 5: DATA ANALYSIS AND PROBABILITY**

All students will collect, organize, analyze, and interpret data to answer relevant questions and to make decisions or predictions.

**Benchmark 1:** Students will develop, select, and use appropriate methods to collect, organize, display, and analyze data

**MTH.S5.B1.100: Formulate questions, collect, organize, display, and/or interpret data using units or intervals of one and more, (e.g. charts, tally sheets, pictographs, and bar graphs)**

**K:** 27A-27B, 27-28, 29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34

**1:** 309A-309B, 309-310, 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316

**2:** 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 325A-325B, 325-326, 327A-327B, 327-328

**MTH.S5.B1.101: Compare and use information taken from a graph, chart, or table to answer questions about a problem (e.g. fewest, largest, smallest, most often, least often, twice as many)**

**K:** 27A-27B, 27-28, 29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34

**1:** 309A-309B, 309-310, 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316

**2:** 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 325A-325B, 325-326, 327A-327B, 327-328

**Benchmark 2:** Students will develop predictions and consider probability based on data

**MTH.S5.B2.100: Determine whether common events are certain, likely, unlikely, or improbable**

**K:** Preparation: 213A-213B, 213-214, 215A-215B, 215-216

**1:** 401A-401B, 401-402, 403A-403B, 403-404

**MTH.S5.B2.101: Explore concepts of chance and probability, (e.g. if a bag contains one red marble and two blue marbles, which color will most likely be chosen?)**

**1:** 401A-401B, 401-402, 403A-403B, 403-404

**2:** 373A-373B, 373-374, 375A-375B, 375-376

**MTH.S5.B2.102: Use data to predict which events and outcomes are more, less, or equally likely, possible/impossible; probable/improbable, or certain to occur**

**2:** 373A-373B, 373-374, 375A-375B, 375-376

**Scott Foresman – Addison Wesley Mathematics  
to the  
Waterloo School District Objectives**

**Grades Three - Five**

**Standard 1: NUMBERS AND OPERATIONS**

All Students will understand and represent numbers, the relationship among numbers, and the meaning of operations in order to compute fluently and make reasonable estimates.

**Benchmark 1:** Select and apply appropriate numerical representations

**MTH.S1.B1.200: Read, write, and identify place values of whole numbers through 1, 000,000,000**

- 3:** 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13
- 4:** 4A-4B, 4-7, 8A-8B, 8-9, 28A-28B, 28-29, 34A-34B, 34-37, 500A-500B, 500-501, 502A-502B, 502-503, 504A-504B, 504-507, 624A-624B, 624-627
- 5:** 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-11, 14A-14B, 14-17, 26A-26B, 26-27, 84A-84B, 84-85, 394A-394B, 394-397, 398A-398B, 398-399, 400A-400B, 400-401, 404A-404B, 404-405

**MTH.S1.B1.201: Read and write standard and expanded notation of four, five, and six digit numbers up to 100,000**

- 3:** 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13
- 4:** 4A-4B, 4-7, 8A-8B, 8-9, 28A-28B, 28-29, 34A-34B, 34-35
- 5:** 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-11, 14A-14B, 14-17

**MTH.S1.B1.202: Explain the value of positions increase in powers of ten from right to left**

- 3:** 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13
- 4:** 4A-4B, 4-7, 8A-8B, 8-9, 10A-10B, 10-11, 28A-28B, 28-29
- 5:** 8A-8B, 8-11, 14A-14B, 14-17

**MTH.S1.B1.203: Compare and order number through 1,000,000,000**

- 3:** 18A-18B, 18-21, 22A-22B, 22-23
- 4:** 16A-16B, 16-19, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-536, 630A-630B, 630-631
- 5:** 12A-12B, 12-13, 394A-394B, 394-397, 400A-400B, 400-401, 404A-404B, 404-405, 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.204: Recognize negative numbers as values less than zero**

4: 500A-500B, 500-501, 502A-502B, 502-503

5: 52-53, 118-119, 188-189, 246-247, 314-315, 380-381, 446-447, 514-515, 580-581, 634-635, 684-685, 738-739

**MTH.S1.B1.205: Identify a number that is 100 more or 100 less, 1000 more or 1000 less than a given number**

3: 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11

4: 516A-516B, 516-517, 520A-520B, 520-521, 530A-530B, 530-531

5: 394A-394B, 394-397, 400A-400B, 400-401, 404A-404B, 404-405

**MTH.S1.B1.206: Identify the equality or inequality of number by using symbolic notations and using number lines**

3: 18A-18B, 18-21

4: 516A-516B, 516-517, 520A-520B, 520-521, 530A-530B, 530-531

5: 400A-400B, 400-401, 404A-404B, 404-405

**MTH.S1.B1.207: Define the terms numerator and denominator**

3: 498A-498B, 498-501, 502A-502B, 502-503, 512A-512B, 512-513

4: 524A-524B, 524-525

**MTH.S1.B1.208: Explain the value of fractions with denominators greater than four (e.g.,  $\frac{1}{8}$ ,  $\frac{1}{6}$ ,  $\frac{3}{7}$ )**

3: 498A-498B, 498-501, 502A-502B, 502-503, 512A-512B, 512-513

4: 28A-28B, 28-29, 34A-34B, 34-35

**MTH.S1.B1.209: Compare and order fractions with like denominators**

3: 506A-506B, 506-509

**MTH.S1.B1.210: Find the least common denominator of two or more fractions**

4: 16A-16B, 16-19, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-536, 630A-630B, 630-631

5: 412A-412B, 400A-400B, 400-401, 404A-404B, 404-405, 412-413, 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.211: Determine the relationship and equivalency of fractions and state in simplest form**

3: 506A-506B, 506-509

4: 203, 301, 302-303, 421, 422-423, 603, 635, 651, 662A-662B, 662-663, 669, 675, 676-677, 715, 717, 719, 725, 726-727

5: 412A-412B, 400A-400B, 400-401, 404A-404B, 404-405, 412-413, 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.212: Compare and order fractions with unlike denominators**

- 4: 16A-16B, 16-19, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-536, 630A-630B, 630-631
- 5: 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.213: Recognize there is always another fraction between any two fraction**

- 4: 28A-28B, 28-29, 34A-34B, 34-35
- 5: 412A-412B, 400A-400B, 400-401, 404A-404B, 404-405, 412-413, 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.214: Change improper fractions to mixed numbers and mixed numbers to improper fractions**

- 4: 524A-524B, 524-525
- 5: 400A-400B, 400-401, 404A-404B, 404-405

**MTH.S1.B1.215: Read, write, and identify place value of whole numbers and decimals from tenths, hundredths, and thousandths**

- 3: 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11
- 4: 516A-516B, 516-517, 520A-520B, 520-521, 530A-530B, 530-531
- 5: 394A-394B, 394-397, 400A-400B, 400-401, 404A-404B, 404-405

**MTH.S1.B1.216: Read, write, compare, and order decimals (e.g.  $.4 = .40 = .400$ )**

- 4: 500A-500B, 500-501, 502A-502B, 502-503
- 5: 52-53, 118-119, 188-189, 246-247, 314-315, 380-381, 446-447, 514-515, 580-581, 634-635, 684-685, 738-739

**MTH.S1.B1.217: Define the word “percent” as meaning per one hundred and relate simple percents to simple fractions (e.g.  $\frac{1}{2} = 50\%$ ,  $\frac{1}{4} = 25\%$ )**

- 3: Preparation: 498A-498B, 498-501, 502A-502B, 502-503, 512A-512B, 512-513, 500A-500B, 500-501, 502A-502B, 502-503
- 4: 16A-16B, 16-19, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-536, 630A-630B, 630-631

**MTH.S1.B1.218: Identify and generate equivalent forms of fractions, decimals, and percents (e.g.  $\frac{1}{2}$ ,  $\frac{5}{10}$ , “five tenths”,  $0.5$ ,  $50\%$ )**

- 3: 6-7, 10-11
- 4: 516A-516B, 516-517, 520A-520B, 520-521, 530A-530B, 530-531
- 5: 12A-12B, 12-13, 394A-394B, 394-397, 400A-400B, 400-401, 404A-404B, 404-405, 426A-426B, 426-429, 430A-430B, 430-433

**MTH.S1.B1.219: Define prime and composite numbers**

- 4: 16A-16B, 16-19, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-536, 630A-630B, 630-631
- 5: 8A-8B, 8-11, 14A-14B, 14-17

**MTH.S1.B1.220: Find, use, and apply greatest common factors and least common multiple of numbers**

5: 4A-4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-11, 14A-14B, 14-17

**Benchmark 2: Solve problems, compute fluently, and make reasonable estimates****MTH.S1.B2.200: Use basic operational terms correctly: multiply, factor, product, dividend, divisor, and quotient**

3: 66A-66B, 66-69, 70A-70B, 70-71, 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379, 384A-384B, 384-385

4: 62A-62B, 62-63, 64A-64B, 64-65, 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153

**MTH.S1.B2.201: Determine appropriate operation in order to solve an equation (e.g.  $8 \square 2 = 16$ )**

3: 344A-344B, 344-345

4: 6A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89

**MTH.S1.B2.202: Write, and /or solve computation problems using horizontal and/or vertical notation**

3: 66A-66B, 66-69, 70A-70B, 70-71, 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379, 384A-384B, 384-385

4: 148A-148B, 148-149

5: 32A-32B, 32-33, 42A-42B, 42-43, 44-45, 80A-80B, 80-81, 104A-104B, 104-105, 110-111, 144A-144B, 144-145, 168A-168B, 168-169, 180-181, 210A-210B, 210-211, 226A-226B, 226-227, 238-239, 276A-276B, 276-279, 272A-272B, 272-273, 306-307, 352A-352B, 352-355, 356A-356B, 356-357, 372-373, 406A-406B, 406-407, 434A-434B, 434-437, 438-439, 484A-484B, 484-487, 504A-504B, 504-505, 506-507, 558A-558B, 558-559, 570A-570B, 570-571, 572-573, 606A-606B, 606-607, 624A-624B, 624-625, 626-627, 660A-660B, 660-661, 664A-664B, 664-665, 676-677, 706A-706B, 706-709, 720A-720B, 720-721, 730-731

**MTH.S1.B2.203: Recognize words and phrases to determine the appropriate operation (e.g. four times as many, 12 fewer than, half as many, share equally, split in thirds)**

- 3:** 66A-66B, 66-69, 70A-70B, 70-71, 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379, 384A-384B, 384-385
- 4:** 62A-62B, 62-63, 64A-64B, 64-65, 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153

**MTH.S1.B2.204: Recognize and explain when it is appropriate to estimate or when an accurate answer is needed**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391
- 5:** 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161

**MTH.S1.B2.205: Estimate with and without a referent set and explain the reasoning for the estimate (e.g. numbers of objects, time, money, space, distance)**

- 3:** 62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637
- 4:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 5:** 36-37

**MTH.S1.B2.206: Recognize and explain reasonable and unreasonable answers when estimating**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 4:** 564A-564B, 564-567, 574A-574B, 574-577
- 5:** 132-135, 148-151

**MTH.S1.B2.207: Estimate using benchmark numbers such as 25, 50, 100, and 1000**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161

**MTH.S1.B2.208: Estimate by rounding to the nearest tens, hundreds, and thousands using three-digit and larger numbers**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 4:** 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153
- 5:** 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161

**MTH.S1.B2.209: Estimate and solve three and four-digit addition and subtraction with and without regrouping**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 4:** 76A-76B, 76-79, 82A-82B, 82-85, 638A-638B, 638-641, 642A-642B, 642-647

**MTH.S1.B2.210: Model, represent, and explain multiplication as repeated addition and skip counting using arrays and symbolic notation**

- 3:** 260A-260B, 260-261, 262A-262B, 262-265
- 4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391
- 5:** 28A-28B, 28-31, 68A-68B, 68-70, 86A-86B, 86-87, 138A-138B, 138-143, 204A-204B, 204-209, 474A-474B, 474-475, 494A-494B, 494-495, 672A-672B, 672-675

**MTH.S1.B2.211: Demonstrate understanding of the commutative, associative, distributive, and identity properties of multiplication**

- 3:** 260A-260B, 260-261, 262A-262B, 262-265
- 4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337
- 5:** 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469, 472A-472B, 472-473, 474A-474B, 474-475, 476A-476B, 476-477, 478A-478B, 478-483

**MTH.S1.B2.212: Explain and demonstrate the inverse nature of multiplication and division**

- 3:** 316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, 320-323, 324A-324B, 324-327
- 4:** 696A-696B, 696-697



**MTH.S1.B2.213: Know basic multiplication facts 0 -10**

- 3: 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287
- 4: 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337

**MTH.S1.B2.214: Estimate products of two- and three-digit numbers and justify estimate**

- 3: 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161
- 4: 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391

**MTH.S1.B2.215: Multiply two-digit or larger numbers by single-digits numbers with and without regrouping**

- 3: 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287
- 4: 76A-76B, 76-79, 82A-82B, 82-85, 638A-638B, 638-641, 642A-642B, 642-647

**MTH.S1.B2.216: Multiply two and three-digit numbers by tens, hundreds, and thousands, vertically horizontally**

- 3: 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287
- 4: 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153
- 5: 36-37

**MTH.S1.B2.217: Multiply two, three, and four-digit numbers by two-digit numbers with and without regrouping**

- 3: 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287
- 4: 148A-148B, 148-149
- 5: 132-135, 148-151

**MTH.S1.B2.218: Multiply larger numbers by two and three-digit numbers**

- 4: 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287
- 5: 28A-28B, 28-31, 68A-68B, 68-70, 86A-86B, 86-87, 138A-138B, 138-143, 204A-204B, 204-209, 474A-474B, 474-475, 494A-494B, 494-495, 672A-672B, 672-675

**MTH.S1.B2.219: Represent and explain division as sharing equally and as repeated subtraction using concrete material and symbolic notation****3:** 370A-370B, 370-371**4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391**MTH.S1.B2.220: Identify and apply division rules using one and zero as the divisor****3:** 370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379, 384A-384B, 384-385**4:** 62A-62B, 62-63, 64A-64B, 64-65, 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153**MTH.S1.B2.221: Demonstrate proficiency of division facts****3:** 370A-370B, 370-371**4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391**MTH.S1.B2.222: Identify and apply divisibility rules of two, three, four, five, six, nine and ten****5:** 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161**MTH.S1.B2.223: Estimate and justify quotients of two and three-digit numbers****4:** 132-135, 148-151**5:** 460A-460B, 460-461, 462A-462B, 462-463, 464A-464B, 464-465, 466A-466B, 466-469, 472A-472B, 472-473, 474A-474B, 474-475, 476A-476B, 476-477, 478A-478B, 478-483**MTH.S1.B2.224: Divide two-digit larger numbers by single-digit divisor with or without remainder****3:** 370A-370B, 370-371, 372A-372B, 372-373, 374A-374B, 374-379, 384A-384B, 384-385**4:** 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153

**MTH.S1.B2.225: Divide two, three, and four-digit numbers by two-digit divisor**

- 4: 62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637
- 5: 36-37

**MTH.S1.B2.226: Solve story and picture problems involving multi-step processes**

- 3: 14A-14B, 14-15, 32A-32B, 42A-42B, 42-43, 76A-76B, 76-77, 102A-102B, 102-103, 104-105, 140A-140B, 160A-160B, 160-161, 216A-216B, 216-217, 236A-236B, 236-237, 270A-270B, 270-273, 284A-284B, 284-285, 332A-332B, 332-333, 346A-346B, 346-347, 380A-380B, 380-381, 404A-404B, 404-405, 436A-436B, 436-439, 474A-474B, 474-475, 528A-528B, 528-529, 540A-540B, 540-541, 578A-578B, 578-579, 588A-588B, 588-589, 644A-644B, 644-645, 656A-656B, 656-657, 698A-698B, 698-699, 708A-708B, 708-709
- 4: 62A-62B, 62-63, 64A-64B, 64-65, 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-139, 146A-146B, 146-147, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-153
- 5: 132-135, 148-151

**MTH.S1.B2.227: Add and subtract fractions with like denominators and reduce to lowest terms**

- 3: 316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, 320-323, 324A-324B, 324-327
- 4: 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391
- 5: 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161

**MTH.S1.B2.228: Add and subtract fractions with unlike denominators and reduce to lowest terms**

- 4: 62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637
- 5: 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 88A-88B, 88-91, 94A-94B, 94-97, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161

**MTH.S1.B2.229: Round fractions, including mixed numbers, to the nearest half**

**5:** 406A-406B, 406-407

**MTH.S1.B2.230: Solve problems involving addition and subtraction of mixed numbers with like and unlike denominators involving regrouping, expressing answers in simplest form**

**5:** 84-85, 86-87, 88-91, 92-93, 94-97, 460-461, 462-463, 464-465, 466-469, 472-473, 474-475, 476-477, 478-483, 490-493, 494-493, 496-499, 500-501, 502-503

**MTH.S1.B2.231: Multiply and divide fractions with whole numbers (e.g.  $\frac{1}{4}$  of 20)**

**3:** 316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, 320-323, 324A-324B, 324-327

**4:** 148A-148B, 148-149

**5:** 84-85, 86-87, 88-91, 92-93, 94-97, 460-461, 462-463, 464-465, 466-469, 472-473, 474-475, 476-477, 478-483, 490-493, 494-493, 496-499, 500-501, 502-503

**MTH.S1.B2.232: Multiply and divide fractions and reduce to lowest terms**

**5:** 36-37

**MTH.S1.B2.233: Round decimals to a given place value**

**4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337

**5:** 132-135, 148-151

**MTH.S1.B2.234: Solve problems involving addition, subtraction, and multiplication of decimals through the thousandths by a single digit whole number divisor**

**4:** 62A-62B, 62-63, 64A-64B, 64-67, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-371, 636A-636B, 636-637

**5:** 502-503

**MTH.S1.B2.235: Use strategies to estimate the results of computations involving whole numbers fractions, and decimals(e.g. rounding, front-end estimation, compatible numbers, and clustering)**

**4:** 564A-564B, 564-567, 574A-574B, 574-577

**5:** 502-503

**MTH.S1.B2.236: Identify missing information and/or too much information in problems**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161  
**4:** 76A-76B, 76-79, 82A-82B, 82-85, 638A-638B, 638-641, 642A-642B, 642-647  
**5:** 502-503

**MTH.S1.B2.237: Use a problem solving plan that includes understanding the problem, planning a strategy to solve the problem, determining the appropriate operation, solving the problem, and checking the answer**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161  
**4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391  
**5:** 28A-28B, 28-31, 68A-68B, 68-70, 86A-86B, 86-87, 138A-138B, 138-143, 204A-204B, 204-209, 474A-474B, 474-475, 494A-494B, 494-495, 672A-672B, 672-675

**MTH.S1.B2.238: Determine whether an answer is appropriate/inappropriate or reasonable/unreasonable given the context of the problem**

- 3:** 86A-86B, 86-89, 90A-90B, 90-91, 98A-98B, 98-101, 160A-160B, 160-161  
**4:** 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A-86B, 86-89, 270A-270B, 270-273, 274A-274B, 274-277, 332A-332B, 332-335, 336A-336B, 336-337  
**5:** 502-503

**Standard 2: ALGEBRA**

All Students will understand and use algebraic concepts, symbols, and graphic representations of numbers, patterns, relations, and functions to analyze and solve mathematical problems.

**Benchmark 1: Recognize, describe, and analyze patterns and functional relationships****MTH.S1.B1.200: Analyze, predict, and extend patterns and describe the rule using words, symbols, and mathematical sentences**

- 3:** 8A-8B, 8-9, 24A-24B, 24-27, 72A-72B, 72-75, 340A-340B, 340-341, 344A-344B, 344-345  
**4:** 10A-10B, 10-11, 90A-90B, 90-91, 366A-366B, 366-367, 641  
**5:** 14A-14B, 14-17, 66A-66B, 66-67, 84A-84B, 84-85, 106A-106B, 106-107, 136A-136B, 136-137, 728A-728B, 728-729

**MTH.S1.B1.201: Demonstrate that a function is the relationship between two quantities in which one quantity depends on the other**

- 3:** 344A-344B, 344-345  
**4:** 164A-164B, 164-165, 692A-692B, 692-695

**MTH.S1.B1.202: Use order of operations to solve an expression (Operate inside the parenthesis \* Multiply and divide from left to right \* Add and subtract from left to right)**

**3:** 24A-24B, 24-27, 340A-340B, 340-341

**4:** 94A-94B, 94-95, 96A-96B, 96-97, 98A-98B, 98-99, 100A-100B, 100-101, 160A-160B, 106-103, 166A-166B, 166-167, 690A-690B, 690-691, 692A-692B, 692-695

**5:** 106A-106B, 106-107, 728A-728B, 728-729

**MTH.S1.B1.203: Write and evaluate an expression from phrases and word problems**

**3:** 72A-72B, 72-75, 344A-344B, 344-345

**4:** 100A-100B, 100-101, 166A-166B, 166-167, 692A-692B, 692-695

**5:** 100A-100B, 100-103, 104A-104B, 104-105, 106A-106B, 106-107, 108A-108B, 108-109, 172A-172B, 172-173, 174A-174B, 174-175, 176A-176B, 176-179, 696A-696B, 696-699, 700A-700B, 700-701, 702A-702B, 702-705, 706A-706B, 706-709, 728A-728B, 728-729

**MTH.S1.B1.204: Recognize a variable is often expressed as an unknown quantity represented by a box, symbol, or letter**

**3:** 140A-140B, 140-143, 204A-204B, 204-207, 208A-208B, 208-211, 226A-226B, 226-227, 228A-228B, 228-231, 232A-232B, 232-235, 236A-236B, 236-237, 270A-270B, 270-273

**4:** 94A-94B, 94-95, 96A-96B, 96-97, 98A-98B, 98-99, 100A-100B, 100-101, 160A-160B, 106-103, 166A-166B, 166-167, 690A-690B, 690-691, 692A-692B, 692-695

**MTH.S1.B1.205: Write and evaluate simple algebraic expressions having one unknown variable**

**3:** 72A-72B, 72-75, 344A-344B, 344-345

**4:** 100A-100B, 100-101, 166A-166B, 166-167, 692A-692B, 692-695

**5:** 108A-108B, 108-109, 700A-700B, 700-701, 702A-702B, 702-705, 706A-706B, 706-709, 728A-728B, 728-729

**MTH.S1.B1.206: Demonstrate an equation is a number sentence, using the equal sign, to show two expression have the same values**

**3:** 24A-24B, 24-27, 340A-340B, 340-341

**4:** 692A-692B, 692-695

**5:** 108A-108B, 108-109, 700A-700B, 700-701, 702A-702B, 702-705

**MTH.S1.B1.208: Plot and identify ordered pairs on a coordinate grid (vertical and horizontal number lines)**

- 3: 8A-8B, 8-9, 24A-24B, 24-27, 72A-72B, 72-75, 340A-340B, 340-341, 344A-344B, 344-345
- 4: 100A-100B, 100-101, 166A-166B, 166-167, 692A-692B, 692-695
- 5: 706A-706B, 706-709

**MTH.S1.B1.209: Transfer information from a function table to a coordinate grid**

- 5: 132-135, 148-151

**Standard 3: GEOMETRY**

All students will use spatial relationships and concepts of geometry to describe and analyze characteristics, properties, and patterns, among shapes and objects.

**Benchmark 1:** Describe and compare the attributes of plane and solid geometric figures.

**MTH.S3.B1.200: Identify, describe, and construct geometric figures**

- 3: 428A-428B, 428-431, 432A-432B, 432-435, 442A-442B, 442-443, 444A-444B, 444-445, 446A-446B, 446-449, 450A-450B, 450-453, 454A-454B, 454-455
- 4: 434A-434B, 434-437, 438A-438B, 438-439, 440A-440B, 440-443, 444A-444B, 444-447, 448A-448B, 448-449
- 5: 328A-328B, 328-331, 332A-332B, 332-335, 336A-336B, 336-337, 340A-340B, 340-341, 342A-342B, 342-345, 346A-346B, 346-351, 594A-594B, 594-597, 598A-598B, 598-601

**MTH.S3.B1.201: Compare and contrast quadrilaterals (e.g. rectangle, square, parallelogram, trapezoid, and rhombus)**

- 3: 428A-428B, 428-431, 432A-432B, 432-435, 446A-446B, 446-449, 450A-450B, 450-453, 454A-454B, 454-455
- 4: 440A-440B, 440-443

**MTH.S3.B1.202: Identify, describe, and classify polygons, including pentagons, hexagons, and octagons**

- 3: 456A-456B, 456-459
- 4: 452A-452B, 452-455
- 5: 328A-328B, 328-331, 332A-332B, 332-335, 336A-336B, 336-337

**MTH.S3.B1.203: Identify and compare solids (three-dimensional objects) according to the shape of the faces or number of faces, or edges (e.g. cubes, spheres, prisms, cones, cylinders, and pyramids)**

- 3: 460A-460B, 460-461

**MTH.S3.B1.204: Identify and describe attributes of a circle using appropriate mathematical language (i.e. radius, diameter, center)**

**3:** 442A-442B, 442-443

**4:** 456A-456B, 456-457

**MTH.S3.B1.205: Identify points, lines, and segments using appropriate mathematical notation**

**3:** 218A-218B, 218-221, 512A-512B, 512-513

**4:** 452, 454-455

**5:** 336A-336B, 336-337

**MTH.S3.B1.206: Identify, describe, and construct lines that are parallel, perpendicular, and intersecting**

**3:** 512A-512B, 512-513

**4:** 452A-452B, 452-455, 456A-456B, 456-457

**5:** 368A-368B, 368-371

**MTH.S3.B1.207: Identify and label the vertex, rays, interior and exterior of an angle**

**4:** 452A-452B, 452-455

**5:** 328A-328B, 328-331, 332A-332B, 332-335

**MTH.S3.B1.208: Estimate and determine the measure of interior angles using a protractor (including common angles, 45, 90, 180, and 360 degrees)**

**4:** 434A-434B, 434-437, 438A-438B, 438-439, 440A-440B, 440-443, 444A-444B, 444-447, 448A-448B, 448-449

**5:** 335, 337, 362

**MTH.S3.B1.209: Identify, compare, and contrast angles as acute, obtuse, right and straight**

**3:** 218A-218B, 218-221

**4:** 452A-452B, 452-455

**5:** 360A-360B, 360-363

**MTH.S3.B1.210: Identify congruent and similar shapes**

**3:** 218A-218B, 218-221, 512A-512B, 512-513

**4:** 452A-452B, 452-455, 456A-456B, 456-457

**5:** 724A-724B, 724-727



**Benchmark 2:** Use transformations, symmetry, and visual representation to analyze geometric shapes

**MTH.S3.B2.200: Identify line and point symmetry in two-dimensional shapes and designs**

**3:** 460A-460B, 460-461

**4:** 452, 454-455

**5:** 364A-364B, 364-367

**MTH.S3.B2.201: Visualize and draw two-dimensional views of simple three-dimensional objects from different perspectives (e.g. front, side, top, nets)**

**3:** 442A-442B, 442-443

**4:** 456A-456B, 456-457

**5:** 724A-724B, 724-727

**MTH.S3.B2.202: Identify congruent shapes in any position using rotation, flips, turns, and slides**

**3:** 512A-512B, 512-513

**4:** 452A-452B, 452-455

**5:** 360A-360B, 360-363

#### **Standard 4: MEASUREMENT**

All students will understand units, systems, and processes of measurement and apply appropriate techniques, tools, and formulas to measure quantities and attributes of objects.

**Benchmark 1:** Select and use standard units of customary and metric measurement

**MTH.S4.B1.200: Recognize U.S. customary and metric as two systems of standard measurement**

**3:** 464A-464B, 466A-467, 468A-468B, 468-471, 472A-472B, 472-473

**4:** 464A-464B, 464-467, 468A-468B, 468-473, 588A-588B, 588-589, 652A-652B, 652-653

**5:** 332A-332B, 332-335, 532A-532B, 532-533, 540A-540B, 540-541, 548A-548B, 548-549, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-557

**MTH.S4.B1.201: Recognize when it is appropriate to estimate or when an accurate measurement is needed**

**3:** 533, 535, 582-583, 618, 681, 682, 685, 691, 697

**4:** 588-589, 652-653

**5:** 529, 530, 537, 538, 541, 544, 549, 603, 613, 615, 617, 621

**MTH.S4.B1.202: Estimate then measure the length, height, and width of an object using appropriate units of measure (customary and metric)**

- 3:** 200A-200B, 200-201  
**4:** 588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 596A-596B, 596-597, 652A-652B, 652-653, 654A-65B, 654-655, 656A-656B, 656-657  
**5:** 528A-528B, 528-531, 534A-534B, 534-535

**MTH.S4.B1.203: Describe relationship among inches, feet, and yards**

- 3:** 533, 535, 582-583, 618, 681, 682, 685, 691, 697  
**4:** 464A-464B, 464-467, 468A-468B, 468-471  
**5:** 540-541, 548-549

**MTH.S4.B1.204: Describe relationship among feet, yards, and miles**

- 3:** 536A-536B, 536-537, 538A-538B, 538-539  
**4:** 474A-474B, 474-475, 594A-594B, 594-595

**MTH.S4.B1.205: Explain and interpret scales as used in maps and drawings to show relative size and distance**

- 4:** 590A-590B, 590-591  
**5:** 529, 530, 537, 538, 541, 544, 549, 603, 613, 615, 617, 621

**MTH.S4.B1.206: Know perimeter is the distance around a figure**

- 3:** 532A-532B, 532-533, 534A-534B, 534-535, 536A-536B, 536-537, 538A-538B, 538-539, 582A-582B, 582-583, 584A-584B, 584-587  
**4:** 190A-190B, 190-191  
**5:** 332A-332B, 332-335, 532A-532B, 532-533, 540A-540B, 540-541, 548A-548B, 548-549, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-557

**MTH.S4.B1.207: Estimate then measure the perimeter of regular and irregular shapes**

- 3:** 680A-680B, 680-683, 684A-684B, 684-687  
**4:** 664A-664B, 664-665  
**5:** 332-335, 532-533, 540-541, 548-549, 550-551, 552-553, 554-557

**MTH.S4.B1.208: Know and use the formula ( $2l + 2w$ ) to solve problems involving perimeters or rectangles including squares**

- 4:** 464-467, 468-471  
**5:** 568A-568B, 568-569

**MTH.S4.B1.209: Know area is the surface of a figure and is measured by square units (i.e. square inches, feet, and yards)**

**3:** 690A-690B, 690-693, 694A-694B, 694-695

**4:** 468A-468B, 468-471

**5:** 552A-552B, 552-553, 554A-554B, 554-557

**MTH.S4.B1.210: Know and use the formula ( $1 \times w$ ) to solve problems involving areas of rectangles including squares**

**4:** 464-467, 468-471

**5:** 662A-662B, 662-663

**MTH.S4.B1.211: Recognize rectangles with the same area can have different perimeters**

**4:** 664A-664B, 664-665

**5:** 602A-602B, 602-605, 610A-610B, 610-613

**MTH.S4.B1.212: Measure metric units of millimeters, centimeters, and meters using a meter stick**

**3:** 464A-464B, 464-467

**4:** 590A-590B, 590-591

**5:** 662A-662B, 662-663

**MTH.S4.B1.213: Explain the customary unit of miles(s) and the metric unit of kilometer(s) measures long distances**

**4:** 474A-474B, 474-475, 594A-594B, 594-595

**5:** 552A-552B, 552-553, 554A-554B, 554-557

**MTH.S4.B1.214: Estimate then measure capacity using customary and metric units**

**3:** 198A-198B, 198-199

**4:** 464A-464B, 464-467, 468A-468B, 468-471

**5:** 568A-568B, 568-569

**MTH.S4.B1.215: Given dimensions, calculate the volume of three-dimensional objects (length  $\times$  weight  $\times$  width)**

**4:** 588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 596A-596B, 596-597, 652A-652B, 652-653, 654A-65B, 654-655, 656A-656B, 656-657

**5:** 332-335, 532-533, 540-541, 548-549, 550-551, 552-553, 554-557

**MTH.S4.B1.216: Estimate then measure weight of objects and substances in customary units of ounces and pounds using a scale**

**3:** 696A-696B, 696-697

**4:** 588-589, 652-653

**Benchmark 2:** Use clocks, calendars, and measures of time

**MTH.S4.B2.200: Measure time in seconds, minutes, quarter hours, and hours**

**3:** 192A-192B, 192-195, 196A-196B, 196-197

**MTH.S4.B2.201: Identify equivalent periods of time including seconds, minutes, hours, and days**

**3:** 690A-690B, 690-693, 694A-694B, 694-695

**4:** 464A-464B, 464-467, 468A-468B, 468-473, 588A-588B, 588-589, 652A-652B, 652-653

**5:** 332A-332B, 332-335, 532A-532B, 532-533, 540A-540B, 540-541, 548A-548B, 548-549, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-557

**MTH.S4.B2.202: Use written notation to indicate time of day in hour, minutes, and a.m. or p.m. including noon and midnight**

**3:** 680A-680B, 680-683, 684A-684B, 684-687

**MTH.S4.B2.203: Calculate duration of time intervals (elapsed time) in hours and half hours (e.g. 11:00am to 4:30pm)**

**3:** 532A-532B, 532-533, 534A-534B, 534-535, 536A-536B, 536-537, 538A-538B, 538-539, 582A-582B, 582-583, 584A-584B, 584-587

**MTH.S4.B2.204: Know the time zones throughout the United States**

**3:** 536A-536B, 536-537, 538A-538B, 538-539

**4:** 588-589, 652-653

**MTH.S4.B2.205: Identify equivalent periods of time including years, decades, and centuries**

**3:** 464A-464B, 464-467

**4:** 588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 596A-596B, 596-597, 652A-652B, 652-653, 654A-65B, 654-655, 656A-656B, 656-657

**Benchmark 3:** Use U.S. currency as a measurement of monetary value of goods and services

**MTH.S4.B3.200: Identify, show, and write the value of combination of coins and bills using appropriate symbols**

**3:** 200-201, 464-467, 468-471, 472-473, 532-533, 534-535, 536-537, 538-539, 582-583, 584-587, 680-683, 684-687, 690-693, 694-695, 696-697

**MTH.S4.B3.201: Estimate by rounding to determine whether given amounts of money are sufficient to make specific purchases (e.g. round prices to the nearest dollar)**

**3:** 200A-200B, 200-201

**4:** 464A-464B, 464-467, 468A-468B, 468-471

**MTH.S4.B3.202: Estimate and/or determine change to be received from a purchase using fewest coins and bills**

**3:** 536A-536B, 536-537, 538A-538B, 538-539

**4:** 474A-474B, 474-475, 594A-594B, 594-595

**MTH.S4.B3.203: Demonstrate an understanding of cost per unit**

**5:** 590A-590B, 590-591

### **Standard 5: DATA ANALYSIS AND PROBABILITY**

All students will collect, organize, analyze, and interpret data to answer relevant questions and to make decisions or predictions

**Benchmark 1:** Demonstrate an understanding of data collection, display, and interpretation

**MTH.S5.B1.200: Create a plan to collect, organize, display, and interpret data from surveys and experiments**

**3:** 204A-204B, 204-207, 208A-208B, 208-211, 212A-212B, 212-215, 222A-222B, 222-223, 226A-226B, 226-227, 228A-228B, 228-231, 232A-232B, 232-235, 236A-236B, 236-237

**4:** 204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221, 226A-226B, 226-229, 230A-230B, 230-231, 232A-232B, 232-233

**5:** 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 282A-282B, 282-285, 286A-286B, 286-287, 288A-288B, 288-291

**MTH.S5.B1.201: Describe data using mean, median, and mode**

**4:** 230A-230B, 230-231

**5:** 282A-282B, 282-285

**MTH.S5.B1.202: Develop meaning for frequency, distribution, range, and outliers**

**5:** 282A-282B, 282-285

**MTH.S5.B1.203: Use information taken from a graph, chart, or table to answer questions about a problem**

**3:** 204A-204B, 204-207

**4:** 204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-221

**5:** 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-275, 282A-282B, 282-285, 286A-286B, 286-287, 288A-288B, 288-291

**Benchmark 2:** Understand and apply basic concepts of prediction and probability

**MTH.S5.B2.200: Use results of data analysis to make predictions and draw conclusions about the likelihood of possible outcomes (e.g. more, less or equally likely, possible/impossible: probable improbable, certain to occur)**

**3:** 704A-704B, 704-707

**4:** 700A-700B, 700-703, 706A-706B, 706-709, 710A-710B, 710-713

**5:** 296A-296B, 296-299, 300A-300B, 300-301, 302A-032B, 302-305

**MTH.S5.B2.201: Investigate probabilities by experimenting with devices that generate random outcomes and discuss possible outcomes (i.e. coins, number cubes or dice, spinners)**

**3:** 702A-702B, 702-703

**4:** 700A-700B, 700-703

**MTH.S5.B2.202: Solve and display the results of probability problems in a clear and organized way (e.g. bar graph, line plot, T-chart)**

**3:** 704A-704B, 704-707

**4:** 710A-710B, 710-713

**MTH.S5.B2.203: Describe the probability of an event using ratios including fractional notation (e.g. 3 out of 4,  $\frac{3}{4}$ , 3 in 4 chances)**

**3:** 704A-704B, 704-707

**4:** 700A-700B, 700-703

**5:** 296A-296B, 296-299, 300A-300B, 300-301, 302A-032B, 302-305

**MTH.S5.B2.204: Determine the probability of a given event and express that probability as a ratio, decimal, or percent**

**5:** 296A-296B, 296-299, 300A-300B, 300-301, 302A-032B, 302-305

**MTH.S5.B2.205: Determine possible combinations (outcomes) when given two or more items (e.g. How many combinations are possible when given five shirts and two pairs of pants?) (tree diagram)**

**3:** 702A-702B, 702-703

**4:** 710A-710B, 710-713

**5:** 300A-300B, 300-301

**MTH.S5.B2.207: Relate the concepts of impossible events and certain-to-occur events to the numerical value of 0-impossible and 1-certain**

**5:** 302A-032B, 302-305