Correlation to the
Common Core State Standards
for Mathematics
Grade 3

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Common Core

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Common Core State Standards for Mathematics
Grade 3

Standards	Descriptor	Citations
Standards for Mathematical Practice		
SMP.1	Make sense of problems and persevere in solving them.	This standard is addressed throughout the text. Some representative examples are: SE: 2, 17–18, 19–20, 23–24, 29–30, 31–32, 35–36, 37–38, 41–42, 47–48, 51–52, 57, 61–62, 63–64, 69–70, 73–74, 75, 87–88, 89–90, 93–96, 99–102, 113, 119–122, 125–126, 137, 139–142, 147–148, 151–154, 203–212, 223–226, 244, 247, 259, 267–270, 276, 281–284, 287–290, 299, 301–304, 307–310, 313–316, 319–322, 328, 339–342, 345–348, 351–353, 363, 371–374, 377–379, 383–384, 386, 389–392, 395, 398, 403–406, 409, 415–416, 418, 421–424, 427–430, 443, 445–446, 455–458, 467–470, 476, 481–490, 493–496, 507–508, 519–522, 525–526, 533–535, 545–548, 561, 573–580, 585–588, 591, 594–595, 611–614, 623, 637–640, 657, 661–662, 669–670, 710–712, 718–722, 725, 736–737, 743–746, 748–749 TE: 2, 17–18, 19–20, 23–24, 29–30, 31–32, 35–36, 37–38, 41–42, 47–48, 51–52, 57, 61–62, 63–64, 69–70, 73–74, 75, 87–88, 89–90, 93–96, 99–102, 107–110, 113, 119–122, 125–126, 137, 139–142, 147–148, 151–154, 203–212, 223–226, 244, 247, 259, 267–270, 276, 281–284, 287–290, 299, 301–304, 307–310, 313–316, 319–322, 328, 339–342, 345–348, 351–353, 363, 371–374, 377–379, 383–384, 386, 389–392, 395, 398, 403–406, 409, 415–416, 418, 421–424, 427–430, 443, 445–446, 455–458, 467–470, 476, 481–490, 493–496, 507–508, 519–522, 525–526, 533–535, 545–548, 561, 573–580, 585–588, 591, 594–595, 611–614, 623, 637–640, 657, 661–662, 669–670, 710–712, 718–722, 725, 736–737, 743–746

Standards	Descriptor	Citations
SMP.2	Reason abstractly and quantitatively.	This standard is addressed throughout the text. Some representative examples are: SE: 3, 13–14, 26, 29–30, 31–32, 35–36, 41–42, 93–96, 99–102, 105–106, 107–110, 114, 125–128, 137, 139, 145–148, 154, 160–161, 165–168, 171–174, 177–180, 191, 193–200, 203, 205, 215, 218, 223–226, 232, 236, 237, 241, 243, 247, 250, 259, 261–264, 267–270, 276, 281–283, 287–290, 307–310, 313–316, 319–322, 325–327, 333–334, 342, 351–353, 363, 365–368, 373, 377, 385, 391, 396–398, 406, 411, 415–417, 441, 443–446, 449–452, 455–458, 461–464, 470, 473–478, 484, 487–490, 493–496, 505, 507–522, 525–532, 539–548, 559, 561–570, 575, 579–581, 585–588, 591, 602, 607–612, 623, 625–628, 633–634, 640, 643–652, 657, 661–665, 669–670, 676–678, 684, 695, 698, 700, 703–706, 709, 712–715, 717–732, 742–746, 748–749 TE: 3, 13–14, 26, 29–30, 31–32, 35–36, 41–42, 93–96, 99–102, 105–106, 107–110, 114, 125–128, 137, 139, 145–148, 154, 160–161, 165–168, 171–174, 177–180, 191, 193–200, 203, 205, 215, 218, 223–226, 232, 236, 237, 241, 243, 247, 250, 259, 261–264, 267–270, 276, 281–283, 287–290, 307–310, 313–316, 319–322, 325–327, 333–334, 342, 351–353, 363, 365–368, 373, 377, 385, 391, 396–398, 406, 411, 415–417, 441, 443–446, 449–452, 455–458, 461–464, 470, 473–478, 484, 487–490, 493–496, 505, 507–522, 525–532, 539–548, 559, 561–570, 575, 579–581, 585–588, 591, 602, 607–612, 623, 625–628, 633–634, 640, 643–652, 657, 661–665, 669–670, 676–678, 684, 695, 698, 700, 703–706, 709, 712–715, 717–732, 742–746, 748–749

Standards	Descriptor	Citations
SMP.3	Construct viable arguments and critique the reasoning of others.	This standard is addressed throughout the text. Some representative examples are: SE: 6, 8, 25–26, 38, 57, 64, 89, 110, 125, 141, 148, 161, 212, 229, 232, 277–278, 310, 313, 348, 374, 398, 428, 446, 458, 464, 490, 516, 521, 496, 602, 608, 626, 628, 649, 652, 683, 700, 712, 732, 735, 738, 748, 752 TE: 6, 8, 25–26, 38, 57, 64, 89, 110, 125, 141, 148, 161, 212, 229, 232, 277–278, 310, 313, 348, 374, 398, 428, 446, 458, 464, 490, 516, 521, 496, 602, 608, 626, 628, 649, 652, 683, 700, 712, 732, 735, 738, 748, 752
SMP.4	Model with mathematics.	This standard is addressed throughout the text. Some representative examples are: SE: 2, 23–24, 35–36, 55, 73, 87–89, 93, 99–102, 107–110, 113–116, 119–120, 122, 139–140, 145–148, 151–154, 159–162, 165–168, 171–174, 191–194, 197–200, 203, 209–210, 223–224, 226, 247–249, 264, 267–268, 270, 275–278, 281–284, 287–290, 301–304, 307–309, 319–322, 326, 333–335, 339–342, 345–346, 365–367, 371, 379, 383–384, 386, 389–390, 395–396, 403–404, 412, 421, 429, 443–446, 449–452, 457, 464, 470, 478, 484, 487–490, 507, 528, 536, 548, 576, 582, 594, 612, 614, 637–638, 640, 646, 652, 655, 684 TE: 2, 23–24, 35–36, 55, 73, 87–89, 93, 99–102, 107–110, 113–116, 119–120, 122, 139–140, 145–148, 151–154, 159–162, 165–168, 171–174, 191–194, 197–200, 203, 209–210, 223–224, 226, 247–249, 264, 267–268, 270, 275–278, 281–284, 287–290, 301–304, 307–309, 319–322, 326, 333–335, 339–342, 345–346, 365–367, 371, 379, 383–384, 386, 389–390, 395–396, 403–404, 412, 421, 429, 443–446, 449–452, 457, 464, 470, 478, 484, 487–490, 507, 528, 536, 548, 576, 582, 594, 612, 614, 637–638, 640, 646, 652, 655, 684

Standards	Descriptor	Citations
SMP.5	Use appropriate tools strategically.	This standard is addressed throughout the text. Some representative examples are: SE: 55, 70, 73, 87, 113–116, 127, 137, 139–141, 165–166, 171, 204, 211, 223–224, 229–230, 236, 247–250, 261–264, 275–278, 281–284, 287–290, 301–304, 307–309, 319–322, 326–328, 333–334, 345, 372, 377–379, 410, 415–417, 429, 487, 525–528, 540, 559, 573–574, 586, 593, 595, 605–608, 631–633, 637–640, 656, 705, 721 TE: 55, 70, 73, 87, 113–116, 127, 137, 139–141, 165–166, 171, 204, 211, 223–224, 229–230, 236, 247–250, 261–264, 275–278, 281–284, 287–290, 301–304, 307–309, 319–322, 326–328, 333–334, 345, 372, 377–379, 410, 415–417, 429, 487, 525–528, 540, 559, 573–574, 586, 593, 595, 605–608, 631–633, 637–640, 656, 705, 721
SMP.6	Attend to precision.	This standard is addressed throughout the text. Some representative examples are: SE: 25–26, 29–32, 73, 115, 122, 126–127, 137, 178, 275, 278, 304, 325, 341, 346, 374, 392, 410, 424, 427–428, 443–446, 451, 467–470, 509, 531, 568–569, 573–575, 591–592, 626, 643–646, 650, 697–698, 709–710, 723–726, 729–732, 738, 742, 743–748 TE: 25–26, 29–32, 73, 115, 122, 126–127, 137, 178, 275, 278, 304, 325, 341, 346, 374, 392, 410, 424, 427–428, 443–446, 451, 467–470, 509, 531, 568–569, 573–575, 591–592, 626, 643–646, 650, 697–698, 709–710, 723–726, 729–732, 738, 742, 743–748

Standards	Descriptor	Citations
SMP.7	Look for and make use of structure.	This standard is addressed throughout the text. Some representative examples are: SE: 5–8, 30, 35–38, 67–70, 85, 154, 166, 173–174, 178, 193, 199, 209–214, 217, 223, 229–231, 241–244, 247–248, 261–264, 336, 339–341, 345–347, 351–353, 379–380, 410, 427–429, 594, 632, 655, 670–671, 710, 717–718, 723–726, 736, 741–743 TE: 5–8, 30, 35–38, 67–70, 85, 154, 166, 173–174, 178, 193, 199, 209–214, 217, 223, 229–231, 241–244, 247–248, 261–264, 336, 339–341, 345–347, 351–353, 379–380, 410, 427–429, 594, 632, 655, 670–671, 710, 717–718, 723–726, 736, 741–743
SMP.8	Look for and express regularity in repeated reasoning.	This standard is addressed throughout the text. Some representative examples are: SE: 23–24, 25–27, 67–70, 95, 162, 191, 198, 209, 215–218, 229, 242, 275, 325–326, 333–334, 345–346, 371, 409, 427–428, 655–656, 663–665, 669–672, 676, 682–683, 709, 729–732, 743–748 TE: 23–24, 25–27, 67–70, 95, 162, 191, 198, 209, 215–218, 229, 242, 275, 325–326, 333–334, 345–346, 371, 409, 427–428, 655–656, 663–665, 669–672, 676, 682–683, 709, 729–732, 743–748

Standards	Descriptor	Citations	
Standards for Mathematical Content			
3.OA	**Operations and Algebraic Thinking**		
Represent and solve problems involving multiplication and division.			
3.OA.1	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.	SE:	139–142, 145–148, 151–154, 159–162, 165–168, 171–174, 177–180, 191–194, 197–200, 203–206, 209–212, 215–218, 223–226, 235–238, 241–244, 267–270, 427–430
		TE:	139A–139B, 139–142, 145A–145B, 145–148, 151A–151B, 151–154, 159A–159B, 159–162, 165A–165B, 165–168, 171A–171B, 171–174, 177A–177B, 177–180, 191A–191B, 191–194, 197A–197B, 197–200, 203A–203B, 203–206, 209A–209B, 209–212, 215A–215B, 215–218, 223A–223B, 223–226, 235A–235B, 235–238, 241A–241B, 241–244, 267A–267B, 267–270, 427A–427B, 427–430
3.OA.2	Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.	SE:	301–304, 307–310, 313–316, 319–322, 325–328, 333–336, 339–342, 345–348, 351–354, 365–368, 371–374, 377–380, 383–386, 389–392, 395–398, 403–406, 409–412, 415–418, 421–424, 427–430
		TE:	301A–301B, 301–304, 307A–307B, 307–310, 313A–313B, 313–316, 319A–319B, 319–322, 325A–325B, 325–328, 333A–333B, 333–336, 339A–339B, 339–342, 345A–345B, 345–348, 351A–351B, 351–354, 365A–365B, 365–368, 371A–371B, 371–374, 377A–37B, 377–380, 383A–383B, 383–386, 389A–389B, 389–392, 395A–395B, 395–398, 403A–403B, 403–406, 409A–409B, 409–412, 415A–415B, 415–418, 421A–421B, 421–424, 427A–427B, 427–430

Standards	Descriptor	Citations	
3.OA.3	Use multiplication and division within 142 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	SE:	139–142, 145–148, 151–154, 159–162, 165–168, 171–174, 177–180, 191–194, 197–200, 203–206, 209–212, 215–218, 223–226, 235–238, 241–244, 247–250, 261–264, 267–270, 275–278, 281–284, 287–290, 301–304, 307–310
		TE:	139A–139B, 139–142, 145A–145B, 145–148, 151A–151B, 151–154, 159A–159B, 159–162, 165A–165B, 165–168, 171A–171B, 171–174, 177A–177B, 177–180, 191A–191B, 191–194, 197A–197B, 197–200, 203A–203B, 203–206, 209A–209B, 209–212, 215A–215B, 215–218, 223A–223B, 223–226, 235A–235B, 235–238, 241A–241B, 241–244, 247A–247B, 247–250, 261A–261B, 261–264, 267A–267B, 267–270, 275A–275B, 275–278, 281A–281B, 281–284, 287A–287B, 287–290, 301A–301B, 301–304, 307A–307B, 307–310
3.OA.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	SE:	209–212, 215–218, 223–226, 235–238, 241–244, 267–270, 339–342, 371–374, 383–386, 389–392, 395–398, 403–406, 409–412, 415–418
		TE:	209A–209B, 209–212, 215A–215B, 215–218, 223A–223B, 223–226, 235A–235B, 235–238, 241A–241B, 241–244, 267A–267B, 267–270, 339A–339B, 339–342, 371A–371B, 371–374, 383A–383B, 383–386, 389A–389B, 389–392, 395A–395B, 395–398, 403A–403B, 403–406, 409A–409B, 409–412, 415A–415B, 415–418

Standards	Descriptor	Citations	
Understand properties of multiplication and the relationship between multiplication and division.			
3.OA.5	Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.)	SE:	209–212, 215–218, 223–226, 229–232, 235–238, 241–244, 247–250, 255–260, 275–278, 281–284, 351–354, 389–392, 395–398, 415–418, 669–672
		TE:	209A–209B, 209–212, 215A–215B, 215–218, 223A–223B, 223–226, 229A–229B, 229–232, 235A–235B, 235–238, 241A–241B, 241–244, 247A–247B, 247–250, 255A–255B, 255–260, 275A–275B, 275–278, 281A–281B, 281–284, 351A–351B, 351–354, 389A–389B, 389–392, 395A–395B, 395–398, 415A–415B, 415–418, 669A–669B, 669–672
3.OA.6	Understand division as an unknown-factor problem.	SE:	339–342, 371–374, 383–386, 389–392, 395–398, 403–406, 409–412, 415–418
		TE:	339A–339B, 339–342, 371A–371B, 371–374, 383A–383B, 383–386, 389A–389B, 389–392, 395A–395B, 395–398, 403A–403B, 403–406, 409A–409B, 409–412, 415A–415B, 415–418

Standards	Descriptor	Citations	
Multiply and divide within 142.			
3.OA.7	Fluently multiply and divide within 142, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.	SE:	145–148, 171–174, 177–180, 191–194, 197–200, 203–206, 209–212, 215–218, 223–226, 235–238, 241–244, 247–250, 261–264, 267–270, 275–278, 281–284, 287–290, 325–328, 339–342, 345–348, 351–354, 365–368, 371–374, 377–380, 383–386, 389–392, 395–398, 403–406, 409–412, 415–418, 421–424, 427–430, 611–614, 663–666, 669–672, 675–678, 681–684
		TE:	145A–145B, 145–148, 171–171B, 171–174, 177A–177B, 177–180, 191A–191B, 191–194, 197A–197B, 197–200, 203A–203B, 203–206, 209A–209B, 209–212, 215A–215B, 215–218, 223A–223B, 223–226, 235A–235B, 235–238, 241A–241B, 241–244, 247A–247B, 247–250, 261A–261B, 261–264, 267A–267B, 267–270, 275A–275B, 275–278, 281A–281B, 281–284, 287A–287B, 287–290, 325A–325B, 325–328, 339A–339B, 339–342, 345A–345B, 345–348, 351A–351B, 351–354, 365A–365B, 365–368, 371A–371B, 371–374, 377A–377B, 377–380, 383A–383B, 383–386, 389A–389B, 389–392, 395A–395B, 395–398, 403A–403B, 403–406, 409A–409B, 409–412, 415A–415B, 415–418, 421A–421B, 421–424, 427A–427B, 427–430, 611A–611B, 611–614, 663A–663B, 663–666, 669A–669B, 669–672, 675A–675B, 675–678, 681A–681B, 681–684
Solve problems involving the four operations, and identify and explain patterns in arithmetic.			
3.OA.8	Solve two–step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	SE:	35–38, 41–32, 67–70, 73–76, 119–122, 159–162, 247–250, 371–374, 421–424, 427–430, 585–588
		TE:	35A–35B, 35–38, 41A–41B, 41–32, 67A–67B, 67–70, 73A–73B, 73–76, 119A–119B, 119–122, 159A–159B, 159–162, 247A–247B, 247–250, 371A–371B, 371–374, 421A–421B, 421–424, 427A–427B, 427–430, 585A–585B, 585–588

Standards	Descriptor	Citations	
3.OA.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.	SE:	5–8, 203–206, 229–232, 235–238, 241–244, 247–250, 261–264, 663–666
		TE:	5A–5B, 5–8, 203A–203B, 203–206, 229A–229B, 229–232, 235A–235B, 235–238, 241A–241B, 241–244, 247A–247B, 247–250, 261A–261B, 261–264, 663A–663B, 663–666
3.NBT	**Number and Operations in Base Ten**		
Use place value understanding and properties of operations to perform multi–digit arithmetic.		
3.NBT.1	Use place value understanding to round whole numbers to the nearest 10 or 142.	SE:	11–14, 17–20, 35–38, 41–44, 49–52, 61–64, 67–70
		TE:	11A–11B, 11–14, 17A–17B, 17–20, 35A–35B, 35–38, 41A–41B, 41–44, 49A–49B, 49–52, 61A–61B, 61–64, 67A–67B, 67–70
3.NBT.2	Fluently add and subtract within 1420 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	SE:	17–20, 23–26, 29–32, 35–38, 41–44, 49–52, 55–58, 61–64, 67–70, 73–76, 87–90, 93–96, 99–102, 107–110, 113–116, 119–122, 125–128, 145–148, 579–582, 585–588, 611–614, 631–634, 637–640, 655–658, 669–672, 675–678, 681–684
		TE:	17A–17B, 17–20, 23A–23B, 23–26, 29A–29B, 29–32, 35A–35B, 35–38, 41A–41B, 41–44, 49A–49B, 49–52, 55A–55B, 55–58, 61A–61B, 61–64, 67A–67B, 67–70, 73A–73B, 73–76, 87A–87B, 87–90, 93A–93B, 93–96, 99A–99B, 99–102, 107A–107B, 107–110, 113A–113B, 113–116, 119A–119B, 119–122, 125A–125B, 125–128, 145A–145B, 145–148, 579A–579B, 579–582, 585A–585B, 585–588, 611A–611B, 611–614, 631A–631B, 631–634, 637A–637B, 637–640, 655A–655B, 655–658, 669A–669B, 669–672, 675A–675B, 675–678, 681A–681B, 681–684
3.NBT.3	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80, 5×60) using strategies based on place value and properties of operations.	SE:	275–278, 281–284, 287–290
		TE:	275A–275B, 275–278, 281A–281B, 281–284, 287A–287B, 287–290

Standards	Descriptor	Citations	
3.NF	**Number and Operations – Fractions**		
Develop understanding of fractions as numbers.			
3.NF.1	Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a/b* as the quantity formed by *a* parts of size 1/*b*.	SE:	443–446, 449–452, 455–458, 461–464, 481–484, 487–490, 493–496, 507–510, 513–516, 519–522, 525–528, 533–536, 539–542, 545–548, 747–752
		TE:	443A–443B, 443–446, 449A–449B, 449–452, 455A–455B, 455–458, 461A–461B, 461–464, 481A–481B, 481–484, 487A–487B, 487–490, 493A–493B, 493–496, 507A–507B, 507–510, 513A–513B, 513–516, 519A–519B, 519–522, 525A–525B, 525–528, 533A–533B, 533–536, 539A–539B, 539–542, 545A–545B, 545–548, 747A–747B, 747–752
3.NF.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.	SE:	467–470, 475–478
		TE:	467A–467B, 467–470, 475A–475B, 475–478
3.NF.2a	Represent a fraction 1/*b* on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into *b* equal parts. Recognize that each part has size 1/*b* and that the endpoint of the part based at 0 locates the number 1/*b* on the number line.	SE:	467–470, 475–478, 539–542
		TE:	467A–467B, 467–470, 475A–475B, 475–478, 539A–539B, 539–542
3.NF.2b	Represent a fraction *a/b* on a number line diagram by marking off *a* lengths 1/*b* from 0. Recognize that the resulting interval has size *a/b* and that its endpoint locates the number *a/b* on the number line.	SE:	467–470, 475–478, 513–516, 533–536
		TE:	467A–467B, 467–470, 475A–475B, 475–478, 513A–513B, 513–516, 533A–533B, 533–536

Standards	Descriptor	Citations	
3.NF.3	Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	SE:	525–528, 545–548
		TE:	525A–525B, 525–528, 545A–545B, 545–548
3.NF.3a	Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.	SE:	539–542, 545–548
		TE:	539A–539B, 539–542, 545A–545B, 545–548
3.NF.3b	Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.	SE:	539–542, 545–548
		TE:	539A–539B, 539–542, 545A–545B, 545–548
3.NF.3c	Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.	SE:	475–478, 539–542
		TE:	475A–475B, 475–478, 539A–539B, 539–542
3.NF.3d	Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.	SE:	507–510, 513–516, 519–522, 525–528, 533–536, 747–752
		TE:	507A–507B, 507–510, 513A–513B, 513–516, 519A–519B, 519–522, 525A–525B, 525–528, 533A–533B, 533–536, 747A–747B, 747–752

Standards	Descriptor	Citations	
3.MD	**Measurement and Data**		
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.			
3.MD.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.	SE:	561–564, 567–570, 573–576, 579–582, 585–588
		TE:	561A–561B, 561–564, 567A–567B, 567–570, 573A–573B, 573–576, 579A–579B, 579–582, 585A–585B, 585–588
3.MD.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l).6 Add, subtract, multiply, or divide to solve one–step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.	SE:	599–602, 605–608, 611–614
		TE:	599A–599B, 599–602, 605A–605B, 605–608, 611A–611B, 611–614
Represent and interpret data.			
3.MD.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.	SE:	87–90, 93–96, 99–102, 107–110, 113–116, 119–122
		TE:	87A–87B, 87–90, 93A–93B, 93–96, 99A–99B, 99–102, 107A–107B, 107–110, 113A–113B, 113–116, 119A–119B, 119–122
3.MD.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.	SE:	125–128, 593–596, 631–634
		TE:	125A–125B, 125–128, 593A–593B, 593–596, 631A–631B, 631–634

Standards	Descriptor	Citations	
Geometric Measurement: understand concepts of area and relate area to multiplication and to addition.			
3.MD.5	Recognize area as an attribute of plane figures and understand concepts of area measurement.	SE:	643–646, 649–652, 655–658, 669–672, 675–678, 681–684, 747–752
		TE:	643A–643B, 643–646, 649A–649B, 649–652, 655A–655B, 655–658, 669A–669B, 669–672, 675A–675B, 675–678, 681A–681B, 681–684, 747A–747B, 747–752
3.MD.5a	A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.	SE:	643–646, 649–652, 655–658, 669–672, 675–678, 681–684
		TE:	643A–643B, 643–646, 649A–649B, 649–652, 655A–655B, 655–658, 669A–669B, 669–672, 675A–675B, 675–678, 681A–681B, 681–684
3.MD.5b	A plane figure which can be covered without gaps or overlaps by *n* unit squares is said to have an area of *n* square units.	SE:	643–646, 655–658, 669–672, 675–678, 681–684
		TE:	643A–643B, 643–646, 655A–655B, 655–658, 669A–669B, 669–672, 675A–675B, 675–678, 681A–681B, 681–684
3.MD.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	SE:	643–646, 649–652, 655–658
		TE:	643A–643B, 643–646, 649A–649B, 649–652, 655A–655B, 655–658

Standards	Descriptor	Citations	
3.MD.7	Relate area to the operations of multiplication and addition.	SE:	655–658
		TE:	655A–655B, 655–658
3.MD.7a	Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.	SE:	649–652, 655–658
		TE:	649A–649B, 649–652, 655A–655B, 655–658
3.MD.7b	Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	SE:	655–658, 663–666, 669–672
		TE:	655A–655B, 655–658, 663A–663B, 663–666, 669A–669B, 669–672
3.MD.7c	Use tiling to show in a concrete case that the area of a rectangle with whole–number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.	SE:	173, 335, 275–278, 669–672
		TE:	173, 335, 275A–275B, 275–278, 669A–669B, 669–672
3.MD.7d	Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.	SE:	669–672
		TE:	669A–669B, 669–672
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.			
3.MD.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	SE:	625–628, 631–634, 637–640, 643–646, 675–678, 681–684
		TE:	625A–625B, 625–628, 631A–631B, 631–634, 637A–637B, 637–640, 643A–643B, 643–646, 675A–675B, 675–678, 681A–681B, 681–684

Standards	Descriptor	Citations	
3.G	**Geometry**		
Reason with shapes and their attributes.			
3.G.1	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	SE:	697–700, 703–706, 709–712, 715–718, 723–726, 729–732, 735–738, 741–746
		TE:	697A–687B, 697–700, 703A–703B, 703–706, 709A–709B, 709–712, 715A–715B, 715–718, 723A–723B, 723–726, 729A–729B, 729–732, 735A–735B, 735–738, 741A–741B, 741–746
3.G.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	SE:	443–446, 449–452, 455–458, 461–464, 475–478, 539–542, 545–548, 747–752
		TE:	443A–443B, 443–446, 449A–449B, 449–452, 455A–455B, 455–458, 461A–461B, 461–464, 475A–475B, 475–478, 539A–539B, 539–542, 545A–545B, 545–548, 747A–747B, 747–752