

South Carolina Standard and Expectation

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NUMBER AND OPERATIONS	
I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	
A. Understand the place-value structure of the base-ten number system and be able to represent and compare whole numbers and decimals.	
1. Explain the place value structure of whole numbers including periods (thousands, millions, billions, etc.).	TE: 2–3, 4–5, 18–19, 20, 24, 58, 62, 68, 74, 86, 106, 186, 324, 342, 354, 380, 550 PE: 2–3, 4–5, 18–19, 380 Assessment Guide: 5, 8–9, 11–16, 24, 62–65, 67
2. Compare decimals (through hundredths) using symbols (>, <, or =) and words ("is greater than," "is less than," or "equals").	TE: 380–381, 382–383 PE: 380–381, 382–383 Assessment Guide: 13, 62–63, 65, 66 Internet: What's Your Reaction Time?, And the Beat Goes On
B. Recognize equivalent representations for the same number and generate them by decomposing and composing numbers.	
2. Write whole numbers in standard form, in expanded form, and in words.	TE: 4–5, 6–8, 10–11, 16, 18–19, 20–22, 24–25, 56–59, 60–63, 104–209, 218–261, 566–599 PE: 4–5, 6–8, 10–11, 18–19, 20–22, 24–25, 56–59, 60–63, 104–209, 218–261, 566–599 Assessment Guide: 8–9, 11, 14, 63, 65, 99 Internet: Getting From Here to There, How Warm Is It?
C. Develop understanding of fractions as parts of unit wholes, as parts of a collection, as locations on number lines, and as divisions of whole numbers.	
1. Describe fractional parts of collections of objects.	TE: 326–327, 332 PE: 326–327 Assessment Guide: 54, 56, 58, 62, 105
2. Locate points on a number line corresponding to a unit fraction and its multiples between 0 and 1.	TE: 329, 330, 331, 338–339 PE: 329, 330, 338–339
D. Use models, benchmarks, and equivalent forms to judge the size of fractions.	
1. Relate the size of fractions to the benchmark fractions of 0, $\frac{1}{2}$ and 1.	TE: 338–340, 382–383 PE: 338–340, 382–383 Assessment Guide: 54
2. Compare concrete or pictorial models of fractions using the symbols >, <, or =.	TE: 338–340, 382–383, 340 PE: 338–340, 382–383 Assessment Guide: 54–55, 57, 59, 105
E. Recognize and generate equivalent forms of commonly used fractions, decimals, and percents.	
1. Write equivalent forms of commonly used fractions.	TE: 328–333, 339–340, 342–345, 350, 376, 382–383 PE: 328–333, 339–340, 342–345, 382–383 Assessment Guide: 56–60, 105
2. Write equivalent forms of decimals.	TE: 372–373, 374–376, 378–379, 382–383, 388–389 PE: 372–373, 374–376, 378–379, 382–383,

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	388–389 Assessment Guide: 61–63, 65–66, 106
3. Identify and represent common fraction-decimal equivalents.	TE: 372–373, 376, 378–379, 536 PE: 372–373, 378–379 Assessment Guide: 61–63, 65–66, 106
F. Explore numbers less than 0 by extending the number line and through familiar applications.	
1. Identify situations in which numbers less than 0 are used.	TE: 141, 288, 325, 332, 335, 340, 345, 347, 351, 354–355, 361, 366, 376, 385, 389, 390–391, 393, 395, 405 PE: 141, 288, 325, 332, 335, 340, 345, 347, 351, 354–355, 361, 366, 376, 385, 389, 390–391, 393, 395, 405 Assessment Guide: 57, 60, 64
G. Describe classes of numbers according to characteristics such as the nature of their factors.	
1. Determine the factors of a given number up to 50.	TE: 104, 106–109, 112–115, 118–119, 164, 246–247, 248–249, 273, 290, 328, 331, 333 PE: 104, 106–109, 112–115, 118–119, 164, 246–247, 248–249, 273, 331, 333 Assessment Guide: 28, 42, 44–45, 103, 112
2. Determine common multiples of pairs of whole numbers each of which is less than or equal to 12.	TE: 273, 331, 333 PE: 273, 331, 333 Assessment Guide: 55, 58, 105
II. Understand meanings of operations and how they relate to one another.	
A. Understand various meanings of multiplication and division.	
1. Explain the meaning of a remainder.	TE: 104, 126–127, 216–217, 220, 566 PE: 104, 126–127, 216–217, 220, 566 Assessment Guide: 39–41, 43, 94–98, 101, 103
B. Understand the effects of multiplying and dividing whole numbers.	
1. Explain the effect on the product when one of the factors is changed.	TE: 106–108, 110–111, 112–113, 136–138, 142–143 PE: 106–108, 110–111, 112–113, 136–138, 142–143
2. Compare the size of the quotient to the dividend when dividing two whole numbers.	TE: 126–127, 220–221, 222–224, 226–227, 232–233, 234–235, 236–237, 238–240, 256–258, 284 PE: 126–127, 220–221, 222–224, 226–227, 232–233, 234–235, 236–237, 238–240, 256–258 Assessment Guide: 40, 41, 43, 44, 94, 95, 96, 97, 101, 102, 103, 111, 112 Internet: And the Beat Goes On, How Warm Is It?, What’s Your Reaction Time
C. Identify and use relationships between operations, such as division as the inverse of multiplication, to solve problems.	
1. Use the inverse relationships between	TE: 118–121, 124–125, 138

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multiplication/division to solve problems.	PE: 118–121, 124–125 Assessment Guide: 30
D. Understand and use properties of operations, such as the distributivity of multiplication over addition.	
1. Recognize commutativity in the multiplication facts.	TE: 110–111, 164–165 PE: 110–111, 164–165 Assessment Guide: 28, 30, 31, 32, 112
2. Use the associative and distributive properties to multiply efficiently.	TE: 110–111, 164–165, 194–195, 213 PE: 110–111, 164–165, 194–195, 213 Assessment Guide: 28, 31, 32, 100
3. Apply divisibility rules for 2, 5, and 10.	TE: 246–247 PE: 246–247 Assessment Guide: 42, 44–45, 103, 112
III. Compute fluently and make reasonable estimates.	
A. Develop fluency with basic number combinations for multiplication and division and use these combinations to mentally compute related problems, such as 30×50.	
1. Use basic number combinations to compute related problems in multiplication and division using multiples of 100 and 1000.	TE: 166–167, 192–193, 230–231, 568–569 PE: 166–167, 192–193, 230–231, 568–569 Assessment Guide: 33–37, 40–41, 94–95, 102
B. Develop fluency in adding, subtracting, multiplying, and dividing whole numbers.	
1. Construct and analyze algorithms for all operations on whole numbers.	TE: 56–57, 60–61, 68–69, 170–171, 180–183, 186–187, 194–196, 198–199, 222–224, 232–235, 578, 580–582, 584–585, 588–589 PE: 56–57, 60–61, 68–69, 170–171, 180–183, 186–187, 194–196, 198–199, 222–224, 232–235, 578, 580–582, 584–585, 588–589
2. Demonstrate fluency in the use of a multiplication algorithm and explain the steps involved.	TE: 170–171, 180–183, 186–187, 194–196, 198–199 PE: 7, 170–171, 180–183, 186–187, 194–196, 198–199 Assessment Guide: 32–38, 102
C. Develop and use strategies to estimate the results of whole-number computations and to judge the reasonableness of such results.	
1. Round whole numbers to the nearest ten thousand, hundred thousand, and million.	TE: 10–11, 12–13, 24–25, 64–67, 70, 74, 95, 110, 174, 390, 392, 394–396, 574 PE: 10–11, 12–13, 24–25, 64–67, 95, 394–396 Assessment Guide: 5, 8–9, 12, 16, 24, 32, 99
2. Estimate the product of whole numbers with one factor, 2 digits or less and the other factor, 3 digits or less and determine the reasonableness of the results.	TE: 174–175, 494 PE: 174–175 Assessment Guide: 34, 37
3. Estimate the quotient of whole numbers with a 1-digit divisor, a 2-digit divisor, and multiples of 10 and determine the reasonableness of results.	TE: 254–255, 574–575 PE: 254–255, 574–575 Assessment Guide: 41, 43, 97, 111

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4. Refine estimates using terms such as, closer to, between, and a little more than.	TE: 584–585 PE: 584–585
D. Develop and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.	
1. Round decimals to the nearest tenth and hundredth.	TE: 64–67, 298, 392–393, 394–396 PE: 64–67, 392–393, 394–396 Assessment Guide: 21, 62, 64, 67, 68, 106 Internet: And the Beat Goes On, What's Your Reaction Time
2. Develop and use strategies to estimate sum and difference of decimals.	TE: 112, 237, 394–396, 424, 524, 572 PE: 237, 394–396, 424, 572 Assessment Guide: 62, 68
E. Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals.	
1. Add and subtract decimals through hundredths using concrete and pictorial models.	TE: 82, 148, 388–391, 398, 428 PE: 388–391 Assessment Guide: 7, 62, 64, 67, 68, 106, 111, 113 Internet: And the Beat Goes On, What's Your Reaction Time?
F. Select appropriate methods and tools for computing with whole numbers from among mental computation, estimation, calculators, and paper and pencil according to the context and nature of the computation and use the selected method or tool.	
1. Explain why a particular method or tool may be the most appropriate one to use in solving a given problem.	TE: 25, 55, 99, 159, 193, 196, 221, 231, 233, 235, 247, 251, 255, 271, 279, 281, 291, 296, 317, 327, 332, 365, 409, 439, 453, 471, 517, 525 PE: 25, 55, 99, 159, 193, 196, 221, 231, 233, 235, 247, 251, 255, 271, 279, 281, 291, 296, 317, 327, 332, 365, 409, 439, 453, 471, 517, 525
ALGEBRA	
I. Understand patterns, relations, and functions.	
A. Describe, extend, and make generalizations about geometric and numeric patterns.	
1. Create, extend, and analyze numeric patterns (including decimal patterns through thousandths), using models and calculators.	TE: 21, 35, 58, 64, 112–113, 139, 140–141, 166–167, 176–177, 192–193, 230–231, 238, 384–385, 405 PE: 21, 35, 64, 112–113, 139, 140–141, 166–167, 176–177, 192–193, 230–231, 384–385, 405 Assessment Guide: 35, 36 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time, Getting From Here to There
B. Represent and analyze patterns and functions, using words, tables, and graphs.	
1. Describe and represent number relationships with tables.	TE: 58, 86–87, 94, 97, 114, 131, 146, 147, 150, 151, 224, 396, 528–529 PE: 58, 86–87, 94, 97, 114, 131, 146, 147, 150, 151, 224, 396, 528–529 Assessment Guide: 69, 86–87 Internet: And the Beat Goes On, How Warm Is It?,

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2. Determine the rule to identify missing numbers in a sequence or a table.	TE: 21, 35, 58, 86–87, 94, 96, 114, 131, 139, 140–141, 146, 147, 150, 175, 176–177, 224, 238, 302–307, 325, 374, 384–385, 396, 405, 416, 434, 522, 529, 530, 536–537, 538–540, 542–544, 546 PE: 21, 35, 58, 86–87, 94, 96, 114, 131, 139, 140–141, 146, 147, 150, 175, 176–177, 224, 302–307, 325, 384–385, 396, 405, 522, 529, 530, 536–537, 538–540, 542–544, 546 Assessment Guide: 86, 87
<i>II. Represent and analyze mathematical situations and structures using algebraic symbols.</i>	
B. Represent the idea of a variable as an unknown quantity using a letter or a symbol.	
1. Use variables to represent an unknown quantity using a letter or a symbol.	TE: 78–81, 82–86, 84–85, 86–87, 88, 94, 96, 114, 123, 126, 131, 132–135, 136–138, 142–143, 144–146, 147, 150, 171, 182, 183, 224, 239, 378, 396, 529, 530, 570 PE: 78–81, 82–86, 84–85, 86–87, 94, 96, 114, 123, 131, 132–135, 136–138, 142–143, 144–146, 147, 150, 171, 183, 224, 239, 396, 529, 530 Assessment Guide: 22–25, 27–29, 31–32, 100–101, 112
C. Express mathematical relationships using equations.	
1. Use equations to represent relationships.	TE: 75–77, 82–87, 123, 136–138, 142–143, 144–146 PE: 75–77, 82–87, 123, 136–138, 142–143, 144–146 Assessment Guide: 13, 18, 22, 25, 29, 31, 35, 38, 42, 45, 50, 53, 81, 84, 109
<i>IV. Analyze change in various contexts.</i>	
A. Investigate how a change in one variable relates to a change in a second variable.	
1. Describe how a rate of growth varies over time.	TE: 287 PE: 287
B. Identify and describe situations with constant or varying rates of change and compare them.	
1. Describe changes over time as increasing, decreasing, and varying using charts and graphs.	TE: 34–35, 302–303, 304–305, 306–307 PE: 34–35, 302–303, 304–305, 306–307 Assessment Guide: 72, 75, 107 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time
GEOMETRY	
<i>I. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.</i>	
A. Identify, compare, and analyze attributes of two- and three-dimensional shapes and develop vocabulary to describe the attributes.	
1. Choose appropriate models of two- and three-dimensional shapes from descriptions of attributes.	TE: 458, 466–467, 468–469, 470–471, 498–500, 501

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	PE: 458, 466–467, 468–469, 470–471, 498–500, 501 Assessment Guide: 6, 78–84, 113
B. Classify two- and three-dimensional shapes according to their properties and develop definitions of classes of shapes such as triangles and pyramids.	
1. Classify triangles by lengths of sides (scalene, isosceles, or equilateral) and sizes of angles (acute, obtuse, or right).	TE: 458, 469–469 PE: 458, 469–469 Assessment Guide: 6, 79, 82, 109
C. Investigate, describe, and reason about the results of subdividing, combining, and transforming shapes.	
1. Subdivide two-dimensional shapes to form new shapes and draw conclusions about area and fractional relationships.	TE: 476, 482–483, 492–493 PE: 476, 482–483, 492–493 Assessment Guide: 81, 84
E. Make and test conjectures about geometric properties and relationships and develop logical arguments to justify conclusions.	
1. Make and test conjectures about geometric properties and relationships, and explain their conclusions using models and mathematical vocabulary.	TE: 462, 468–469, 474–476, 477, 478–481, 482–483 PE: 462, 468–469, 474–476, 477, 478–481, 482–483 Assessment Guide: 78, 79, 81, 83, 84, 109
II. Specify locations and describe spatial relationships using coordinate geometry and other representational systems.	
A. Describe location and movement using common language and geometric vocabulary.	
1. Describe location and movement using common language and geometric vocabulary, and illustrate with and without technology.	TE: 524–525, 526–530, 538–541, 542–544 PE: 524–525, 526–530, 538–541, 542–544 Assessment Guide: 7, 85–86, 88, 90–91, 110
B. Make and use coordinate systems to specify locations and to describe paths.	
1. Investigate possible paths from one point to another along vertical and horizontal grid-lines.	TE: 524–525, 526–527, 539–540, 544 PE: 524–525, 526–527, 539–540 Assessment Guide: 85, 110
2. Identify and name points on a coordinate grid using an ordered pair of whole numbers.	TE: 522–533, 538–545 PE: 522–533, 538–545 Assessment Guide: 7, 85–86, 88, 90–91, 110
III. Apply transformations and use symmetry to analyze mathematical situations.	
A. Predict and describe the results of sliding, flipping, and turning two-dimensional shapes.	
1. Describe the results of translations (slides), reflections (flips), and rotations (turns) using models.	TE: 470–471, 481, 563 PE: 470–471, 481, 563 Assessment Guide: 78–79
2. Create simple tessellations using models and technology.	TE: 494–496 PE: 494–496
B. Describe a motion or a series of motions that will show that two shapes are congruent.	
1. Draw two-dimensional shapes that are related by translation (slide), or reflection (flip).	TE: 470–471, 481, 563 PE: 470–471, 481, 563 Assessment Guide: 78

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2. Given a shape and its translation (slide) or reflection (flip), describe the motion that has been applied.	TE: 470–471, 481, 563 PE: 470–471, 481, 563 Assessment Guide: 78–79
<i>IV. Use visualization, spatial reasoning, and geometric modeling to solve problems.</i>	
A. Build and draw geometric objects.	
1. Draw and label representations of points, lines, line segments, rays, and angles, using mathematical notation.	TE: 458, 460–463, 464–465, 469 PE: 458, 460–463, 464–465, 469 Assessment Guide: 78, 79, 82
B. Create and describe mental images of objects, patterns, and paths.	
1. Write a description of a given three-dimensional object.	TE: 498–501 PE: 498–501 Assessment Guide: 79–80, 83
2. Describe a path along grid lines from one point to another.	TE: 522–527, 538–545 PE: 522–527, 538–545 Assessment Guide: 85, 110
3. Draw two- or three-dimensional objects given a verbal description.	TE: 465, 476, 501, 503 PE: 465, 476, 501, 503
C. Identify and build a three-dimensional object from two-dimensional representations of that object.	
1. Identify and build rectangular prisms and cylinders from a given two-dimensional representation (net).	TE: 498–503 PE: 498–503 Assessment Guide: <i>These pages give students the opportunity to identify nets.</i> 79–80, 83
D. Identify and build a two-dimensional representation of a three-dimensional object.	
1. Identify and build a two-dimensional representation (net) of a given rectangular prism.	TE: 501, 503 PE: 501, 503 Assessment Guide: 79, 80, 83
F. Recognize geometric ideas and relationships and apply them to other disciplines and to problems that arise in the classroom or in everyday life.	
1. Connect geometry to other areas of mathematics, other disciplines, and to the world outside the classroom.	TE: 465, 467, 469, 474, 490, 491, 492–493, 503, 505, 507 PE: 465, 467, 469, 474, 490, 491, 492–493, 503, 505, 507 Assessment Guide: 85
MEASUREMENT	
<i>I. Understand measurable attributes of objects and the units, systems, and processes of measurement.</i>	
A. Understand such attributes as length, area, weight, volume, and size of angle and select the appropriate type of unit for measuring each attribute.	
1. Apply counting procedures to estimate measurements of length, area, volume, and weight (mass).	TE: 277, 279, 285, 287, 291, 295–296, 314 PE: 277, 279, 285, 287, 291, 295–296, 314 Assessment Guide: 46, 53
2. Investigate and compare angle measures using models and manipulatives with angles of measure 45 degrees, 90 degrees, and 180 degrees.	TE: 464–465, 468–469 PE: 464–465, 468–469 Assessment Guide: 78

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3. Find the area of geometric shapes using models.	TE: 486–487, 488–490, 492–493 PE: 486–487, 488–490, 492–493 Assessment Guide: 79, 81, 84, 109, 113
4. Select units appropriate for the attributes being measured (length and area) and explain the basis for the selection.	TE: 276–277, 278–279, 280–281, 292–293, 486–487, 488–490, 492–493 PE: 276–277, 278–279, 280–281, 292–293, 486–487, 488–490, 492–493 Assessment Guide: 6, 46, 47, 49, 50–51, 79, 81, 84, 109, 112–113
C. Carry out simple unit conversions, such as from centimeters to meters, within a system of measurement.	
1. Convert units of measure within the metric system: length (centimeters, meters, kilometers), mass (grams, kilograms); within the customary system: length (inches, feet, yards), weight (ounces, pounds), liquid volume (cups, pints, quarts, gallons).	TE: 276–277, 280–281, 282–285, 286, 290–291, 292–293, 294–296, 384, 466, 532, 538, 588 PE: 276–277, 280–281, 282–285, 290–291, 292–293, 294–296 Assessment Guide: 5, 46–47, 49, 51–52, 103–104
2. Convert units of time including days, hours, minutes, and seconds.	TE: 464, 548 PE: See Level 3.
II. Apply appropriate techniques, tools, and formulas to determine measurements.	
A. Develop strategies for estimating the perimeters, areas, and volumes of irregular shapes.	
1. Develop and describe strategies for estimating the area and perimeter of irregular shapes using manipulatives (e.g., geoboards, square tiles, graphic representations, etc.).	TE: 490, 492–493 PE: 492–493
B. Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and the size of angles.	
1. Estimate the distance to objects or places and determine the passage of units of time (minutes, hours, days, week, etc.) it will take to reach them.	TE: 366, 574 PE: 366, 574
2. Select and use an appropriate tool to measure liquid volume including pints and quarts.	TE: 504–507 PE: 504–507
3. Determine the amount of elapsed time in hours and minutes within a 12-hour period.	TE: 89, 127, 129, 189, 253, 267, 287, 299, 300, 319, 345, 347, 393, 429, 431, 433, 481, 486, 548, 580, 582 PE: 89, 127, 129, 189, 253, 267, 287, 299, 300, 319, 345, 347, 393, 429, 431, 433, 481, 582 Internet: And the Beat Goes On, What’s Your Reaction Time
4. Tell time to the nearest minute and five-minute intervals including using A.M. and P.M., using analog and digital clocks.	TE: 32, 49, 62, 77, 108, 184, 465, 467, 470 PE: 32, 49, 62, 77, 108, 184, 465, 467 Assessment Guide: 5, 47 Internet: And the Beat Goes On, How Warm Is It?, What’s Your Reaction Time
5. Determine temperature changes during time intervals from a Celsius thermometer or a	TE: 302–303, 304–305 PE: 302–303, 304–305

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Fahrenheit thermometer.	Assessment Guide: 22, 26, 50, 53, 75, 104 Internet: How Warm Is It?
D. Develop, understand, and use formulas to find the area of rectangles and related triangles and parallelograms.	
1. Use concrete and graphic models to discover formulas for finding the area of common two-dimensional shapes.	TE: 488–491 PE: 488–491 Assessment Guide: 79, 81, 84, 109, 113
DATA ANALYSIS AND PROBABILITY	
I. Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.	
A. Design investigations to address a question and consider how data-collection methods affect the nature of the data set.	
1. Develop strategies for administering a simple survey to obtain unbiased results.	TE: 416–417 PE: 416–417 Internet: Getting From Here to There
B. Collect data using observations, surveys, and experiments.	
1. Systematically collect data using surveys.	TE: 416–417 PE: 416–417 Internet: Getting From Here to There
C. Represent data using tables and graphs such as line plots, bar graphs, and line graphs.	
1. Construct bar graphs for collected data sets with scale increments of one or greater.	<i>These pages give students the opportunity to read and interpret bar graphs.</i> TE: 8, 22, 121, 196, 224, 258, 414–415, 422–425, 439, 481, 582 PE: 121, 196, 224, 258, 414–415, 422–425, 439, 481, 582 Assessment Guide: 69, 70 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time, Getting From Here to There
2. Read and interpret information from tables, line graphs, and bar graphs.	TE: 5, 8, 15, 16, 17, 22, 26, 29, 58, 60, 62, 66, 83, 95, 99, 114, 121, 143, 144, 166, 187, 191, 196, 198, 200–201, 219, 224, 233, 239, 240, 247, 248, 253, 258, 284, 290, 303, 328, 329, 340, 353, 354–355, 356, 363, 365, 376, 393, 409, 414–415, 422–425, 426–429, 439, 446, 449, 451, 452, 481, 486–487, 493, 497, 500, 502, 530, 536, 582 PE: 5, 8, 15, 16, 17, 22, 26, 29, 58, 60, 62, 66, 83, 95, 99, 114, 121, 143, 144, 166, 187, 191, 196, 198, 200–201, 219, 224, 233, 239, 240, 247, 248, 253, 258, 284, 290, 303, 328, 329, 340, 353, 354–355, 356, 363, 365, 376, 393, 409, 414–415, 422–425, 426–429, 439, 446, 449, 451, 452, 481, 486–487, 493, 497, 500, 502, 536, 582 Assessment Guide: 69, 70, 71, 72, 74, 75, 107 Internet: And the Beat Goes On, How Warm Is It?,

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D. Recognize the differences in representing categorical and numerical data.	
1. Describe types of graphs that may be used to represent categorical data.	TE: 417, 421, 426–427, 451, 572, 582 PE: 417, 421, 426–427, 451
2. Describe types of graphs that may be used to represent numerical data.	TE: 8, 22, 416–417, 418–420, 422–424, 428–429, 439, 442–443, 446, 449, 450, 452 PE: 8, 22, 416–417, 418–420, 422–424, 428–429, 439, 442–443, 446, 449, 450, 452 Assessment Guide: 69, 70, 71, 72, 74, 75, 107 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time, Getting From Here to There
II. Select and use appropriate statistical methods to analyze data.	
A. Describe the shape and important features of a set of data and compare related data sets, with an emphasis on how the data are distributed.	
1. Compare the shapes of graphs of two different numerical data sets that address the same question for different populations.	TE: 422–424, 432, 446, 450, 452 PE: 422–424, 432, 446, 450, 452 Assessment Guide: 70, 72, 74 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time, Getting From Here to There
B. Use measures of center, focusing on the median, and understand what each does and does not indicate about the data set.	
1. Use the mode to describe a set of categorical data.	TE: 418–421 PE: 418–421 Assessment Guide: 74, 107, 113 Internet: And the Beat Goes On, How Warm Is It?, What's Your Reaction Time, Getting From Here to There
C. Compare different representations of the same data and evaluate how well each representation shows important aspects of the data.	
1. Compare the line graph and bar graph representations of a given data set and explain the benefits of each.	<i>These pages give students the opportunity to read and interpret line and bar graphs.</i> TE: 422–424, 426–429, 432–433 PE: 422–424, 426–429, 432–433 Assessment Guide: 69, 70, 71, 72, 74, 75, 107 Internet: How Warm Is It?
III. Develop and evaluate inferences and predictions that are based on data.	
A. Propose and justify conclusions and predictions that are based on data and design studies to further investigate the conclusions or predictions.	
1. Use line graphs to make conjectures about populations based on data sets.	TE: 426–429, 446, 449, 451, 452 PE: 426–429, 446, 449, 451, 452 Assessment Guide: 71, 72, 75, 107 Internet: How Warm Is It?
IV. Understand and apply basic concepts of probability.	

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A. Describe events as likely or unlikely and discuss the degree of likelihood using such words as <i>certain, equally likely, and impossible</i>.	
1. Record the outcomes of a multiple-stage event (e.g., tossing two coins), explain the method used, and determine whether they are equally likely.	TE: 240, 455 PE: 240, 455 Assessment Guide: 71, 73, 77
B. Predict the probability of outcomes of simple experiments and test the predictions.	
1. Determine the probability of a given simple event, using models.	TE: 434–435, 436–437, 441, 444–445, 447 PE: 434–435, 436–437, 441, 444–445, 447 Assessment Guide: 7, 71, 73, 76, 77
2. Construct tree diagrams to list the possible outcomes for multiple-stage events (e.g., tossing 2 coins).	TE: 440–441, 448, 451, 453 PE: 440–441, 448, 451, 453 Assessment Guide: 71
C. Understand that the measure of the likelihood of an event can be represented by a number from 0 to 1.	
1. Give examples of events for which the probability is a fraction between 0 and 1 inclusive and explain.	TE: 436–437, 438–439, 440–441, 442 PE: 436–437, 438–439, 440–441, 442 Assessment Guide: 71, 73, 76