MATH TRAILBLAZERS, K-5, SECOND EDITION

Correlation with the

NORTH CAROLINA

Standard Course of Study and Grade Level Competencies for Mathematics

319 - 589 - 1000

KENDALL/HUNT PUBLISHING COMPANY

4050 Westmark Drive P.O. Box 1840 Dubuque, Iowa 52004-1840

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Kindergarten

Major Concepts /Skills
Number sense 0 - 30
Calendar time
Recognize basic shapes
Create and extend patterns
Sort and classify

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	
COMPETENCY GOAL 1: The learner will recognize, model, and write whole numbers through 30.	
Objectives	
1.01 Develop number sense for whole numbers through 30.	NUMBER SENSE STRAND, Looking at the Number Five TRB pages 267-275, ACTIVITY 1 & 4 NUMBER SENSE STRAND, NUMBER COMPARISONS, ACTIVITY 5 NUMBER SENSE STRAND, LOOKING AT THE NUMBER TEN, TRB PG 355-362, ACTIVITY 1 THEMATIC UNIT, BUILDINGS AROUND US, TRB
a. Connect model, number word (orally), and number, using a variety of representations.	NUMBER SENSE, NUMBERS AROUND US, TRB PG 189-196, ACTIVITY 2 NUMBER SENSE, WE ALL COUNT PG. TRB PG 210-213, ACTIVITY 1 NUMBER SENSE, NUMBER DOT PATTERNS, TRB PG 238-249, ACTIVITY 1 NUMBER SENSE, LOOKING AT THE NUMBER FIVE, TRB, PG 267-275, ACTIVITY 2,3 NUMBER SENSE STRAND, ONE MORE, ONE LESS, TRB PG 425-426, ACTIVITY 1
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f. Estimate quantities fewer than or equal to 10.	NUMBER SENSE, NUMBER COMPARISONS, TRB, PG 298-304, ACTIVITY 2 NUMBER SENSE STRAND, ESTIMATION JAR, TRB, PG 305-312, ACTIVITY 1 MEASUREMENT STRAND, MEASURING AREA, TRB, PG 347-348, ACTIVITY 1
g. Recognize equivalence in sets and numbers 1-10.	NUMBER SENSE STRAND: NUMBER DOT PATTERNS, TRB PG 238-249, ACTIVITY 4 NUMBER SENSE STRAND; PARTITIONING TEN, TRB PG 385-389, ACTIVITY 1
1.02 Share equally (divide) between two people; explain.	NUMBER SENSE STRAND, FRACTIONS, TRB PG 409-410, ACTIVITY 1
1.03 Solve problems and share solutions to problems in small groups.	PROBLEM SOLVING IN THE KINDERGARTEN DAY, TRB, PG 33-38 NUMBER SENSE STRAND, BALLOON STORIES, TRB PG 390-392, ACTIVITY 1 (PROBLEM SOLVING IS PART OF ALL ACTIVITIES)

COMPETENCY GOAL 2: The learner will explore concepts of measurement.	
Objectives	
2.01 Compare attributes of two objects using appropriate vocabulary (color, weight, height, width, length, texture).	MEASUREMENT STRAND, AS TALL AS A__, TRB PG 219-226, ACTIVITY 1 MEASUREMENT STRAND, HEIGHT COMPARISONS, TRB PG 259-260, ACTIVITY 1 MEASUREMENT STRAND, LENGTH COMPARISONS, TRB PG 283-286, ACTIVITY 1 MEASUREMENT STRAND, IF THE SHOE FITS, TRB PG 287-288, ACTIVITY 1 MEASUREMENT STRAND, TEDDY BEAR LINEUP, TRB PG 315-318, ACTIVITY 1 MEASUREMENT STRAND, JUMPERS, TRB, PG 319-320, ACTIVITY 1 MEASUREMENT STRAND, A GARDNER'S AREA, TRB, PG 368-370 MEASUREMENT STRAND, WEIGHING IN, TRB, PG 413-414, ACTIVITY 1 MEASUREMENT STRAND, BALANCING NUMBERS, TRB, PG 415-417, ACTIVITY 1
2.02 Recognize concepts of calendar time using appropriate vocabulary (days of the week, months of the year, seasons).	CALENDAR CONNECTIONS, TRB PG 5-31 MEASUREMENT STRAND, THE TIME OF OUR LIVES, TRB PG 437-441, ACTIVITY 1
COMPETENCY GOAL 3: The learner will explore concepts of geometry.	
Objectives	
3.01 Identify, build, draw, and name triangles, rectangles, and circles; identify, build, and name spheres and cubes.	GEOMETRY STRAND, THREE-DIMENSIONAL SHAPES, TRB PG 342-346, ACTIVITY 1,2,3 GEOMETRY STRAND, EXPLORING TWO DIMENSIONAL SHAPES, TRB PG 365-367, ACTIVITY 1,2,3

3.02 Compare geometric shapes (identify likenesses and differences).	GEOMETRY STRAND, SHAPTES ON GEOBOARD, TRB PG 396-397, ACTIVITY 1 GEOMETRY STRAND, CONNECTING THREE DIMENSIONAL AND TWO DIMENSIONAL SHAPES, TRB PG 411-412, ACTIVITY 1 & 2 GEOMETRY STRAND, INTRODUCING SYMMETRY, TRB PG 427-436
3.03 Model and use directional and positional vocabulary.	GEOMETRY STRAND, LOCATION, LOCATION, LOCATION, TRB PG 197-198 ACTIVITY 1 & 2 GEOMETRY STRAND, MEET MR. ORIGIN, TRB PG 214-218, ACTIVITY 1 & 2
3.04 Complete simple spatial visualization tasks and puzzles.	GEOMETRY STRAND, A MOVING EXPERIENCE, TRB PG 258, ACTIVITY 1 GEOMETRY STRAND, MAPMAKING, TRB, PG 276-282, ACTIVITY 1 & 2 GEOMETRY STRAND, TRAILBLAZING, TRB PG 313-314, ACTIVITY 1
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Objectives	
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4.02 Display and describe data with concrete and pictorial graphs as a group activity.	MEASUREMENT STRAND, AS TALL AS A…., TRB PG 219-226, ACTIVITY 1 DATA COLLECTION: HOW MANY? HOW MUCH? HOW FAR? ONE DATA COLLECTION PER WEEK, TRB PG 39-63, 43-63

COMPETENCY GOAL 5: The learner will model simple patterns and sort objects.	
Objectives	
5.01 Sort and classify objects by one attribute.	PATTERNS STRAND, EXPLORING AND IDENTIFYING PATTERNS, TRB PG 183-188, ACTIVITY 1,2,3
5.02 Create and extend patterns with actions, words, and objects.	PATTERNS STRAND, COPYING AND EXTENDING PATTERNS, TRB PG 207-209, ACTIVITY 1,2,3,4 PATTERNS STRAND, CREATING AND COMPARING PATTERNS, TRB PG 235-237, ACTIVITY 1,2,3

MATHEMATICS STANDARD COURSE STUDY AND GRADE LEVEL COMPETENCIES K-12
Grade 1

Major Concepts/Skills	Concepts/Skills to Maintain
Number sense 0-99	Basic geometric shapes
Single digit addition and subtraction	Sort and classify
Time	
Non-standard measurement	
Collect and display data	
Create and extend patterns	

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	
COMPETENCY GOAL 1: The learner will read, write, and model whole numbers through 99 and compute with whole numbers.	
Objectives	
1.01 Develop number sense for whole numbers through 99.	URG Unit 11, lesson 5 How Long is 100, URG pg 51-55, SG pg 225 URG UNIT 13, LESSON 1, MAKING 10, URG PG 16-23, SG PG 264 URG UNIT 9, LESSON 7, NUMBERS IN THE NEWS, URG PG 58-63; SG PG 173-174 URG UNIT 11, LESSON 4, ARROW DYNAMICS, URG PG 46-50; SG PG 215-223 URG UNIT 17, LESSON 3, COUNTING ONE HUNDED SEVENTH-TWO, URG PG 23-26; SG PG 353-354
a. Connect the model, number word, and number using a variety of representations.	URG UNIT 1, LESSON 3, THE TRAIN GAME, URG PG 26-28 URG UNIT 1, LESSON 4, MORE OR LESS, URG PG 29-34, SG PG 7-9 URG UNIT 2, LESSON 4, HOW MANY DOES IT TAKE?, URG PG 30-33, SG PG 20-23 URG UNIT 2, LESSON 5, MYSTERY FIGURE, URG PG 34-36 URG UNIT 4, EXPLORING EVEN AND ODD NUMBERS, URG PG 14-20; SG PG 68-69 URG UNIT 9, LESSON 2, MORE OR LESS THAN 100?, URG PG 24-28; SG PG 161 URG UNIT 11, LESSON 3, DIMES, NICKELS, QUARTERS, URG PG 36-45; SG PG 211-213 URG UNIT 17, LESSON 2, OUR CLASS IN TENSLAND, URG PF 16-22; SG PG 348-351

b. Use efficient strategies to count the number of objects in a set.	URG UNIT 1, LESSON 2, WE'RE COUNTING ON YOU, PG 20-25; SG PG 2-5 URG UNIT 1, LESSON 1, LOOK AROUND YOU, PG 15-19;AB PG 1-8 URG UNIT 4, LESSON 4, COUNTING ON, URG PG 34-41; SG PG 77-81 URG UNIT 5, LESSON 1, SKIP COUNTING, URG PG 15-21; SG PG 84-85 URG UNIT 5, LESSON 2, COUNTING BY FIVES AND TENS, URG PG 22-28; SG PG 87 URG UNIT 5, LESSON 3, SHARING COOKIES, URG PG 29-36; SG PG 89-91 URG UNIT 9, LESSON 8, FULL OF BEANS, URG PG 64-69; SG PG 175-179 URG UNIT 18, LESSON 4, A CLASS FULL OF FRACTIONS, URG PG 34-38; SG PG 387-388
c. Read and write numbers.	URG UNIT 11, 100 LINKS, URG PG 20-25, SG PG 204 URG UNIT 3, POCKET PARTS, URG PG 38-48, SG PG 47-53 URG UNIT 9, LESSON 7, NUMBERS IN THENEWS, URG PG 58-63; SG PG 173-174 URG UNIT 9, LESSON 4, THE 50 CHART, URG PG 36-41; SG PG 165 URG UNIT 11, LESSON 4, ARROW DYNAMICS, URG PG 46-50; SG PG 215-223 URG UNIT 11, LESSON 5, HOW LONG IS 100, URG PG 51-55; SG PG 225
d. Compare and order sets and numbers.	URG UNIT 9, LESSON 4, THE 50 CHART, URG PG 36-41; SG PG 165 URG UNIT 9, LESSON 5, THE 100 CHART, URG PG 42-52; SG PG 167-169

e. Build understanding of place value (ones, tens).	URG UNIT 3, LESON 2, TEN FRAMES, URG PG 24-30; SG PG 35-39 URG UNIT 11, LESSON 4, ARROW DYNAMICS, URG PG 46-50; SG PG 215-223 URG UNIT 9, LESSON 5, THE 100 CHART, URG PG 42-52; SG PG 167-169
f. Estimate quantities fewer than or equal to 100.	
g. Recognize equivalence in sets and numbers 1-99.	URG UNIT 11, LESSON 3, DIMES, NICKELS, AND QUARTERS, URG PG 36-45; SG PG 211-213
1.02 Use groupings of 2's, 5's, and 10's with models and pictures to count collections of objects.	URG UNIT 5, LESSON 2, COUNTING BY FIVES AND TENS, URG PG 22-28; SG PG 87 URG UNIT 3, LESSON 2. TEN FRAMES. URG PG 24-30; SG PG 35-39 URG UNIT 9, LESSON 1, SPILL THE BEANS, URG PG 19-23; SG PG 160 URG UNIT 9, LESSON 2, MORE OR LESS THAN 100, URG PG 24-28; SG PG 161 URG UNIT 9, LESSON 2; SPIN FOR BEANS, URG PG 29-35; SG PG 163-164 URG UNIT 17, LESSON 1, TENSLAND, URG PG 12-15; AB PB 77-92 URG UNIT 17, LESSON 2, OUR CLASS IN TENSLAND, URG PG 16-22; SG PG 348-351
1.03 Develop fluency with single-digit addition and corresponding differences using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens.	URG UNIT 4, LESSON 2, THE PET SHOP, URG PG 21-27; SG PG 71-74 URG UNIT 4, LESSON 3, PARTS AND WHOLS, URG PG 28-33; SG PG 75 URG UNIT 4, LESSON 4, COUNTING ON TO ADD, URG PG 34-41; SG PG 77-81 URG UNIT 13, LESSON 1, MAKE TEN, URG PG 13-23; SG PG 264

1.04 Create, model, and solve problems that use addition, subtraction, and fair shares (between two or three).	URG UNIT 1, LESSON 3, THE TRAIN GAME, URG PG 26-28 URG UNIT 5, LESSON 3, SHARING COOKIES, URG PG 29-36; SG PG 89-91 URG UNIT 8, LESSON 1, AT THE CIRCUS, URG PG 14-17 URG UNIT 8, LESSON 2, OUR OWN STORIES, URG PG 18-22; SG PG 148-151 URG UNIT 8, LESSON 3, CLOWING AROUND, URG PG 23-28; SG PG 153 URG UNIT 8, LESSON 4, HOW MANY IN THE BAG?, URG PG 29-34; SG PG 155-158 URG UNIT 8, LESSON 5; MAKING FLIP BOOKS, URG PG 35-40; SG PG 155 URG UNIT 11, LESSON 1, 100 LINKS, URG PG 20-25; SG PG 204 URG UNIT 11, LESSON 2, PENNIES AND DIMES, URG PG 26-35; SG PG 205-210 URG UNIT 11, LESSON 8, MARIA'S MARBLE MART, URG PG 77-83; SG PG 242-243 URG UNIT 13, LESSON 1, MAKE TEN, URG PG 16-23; SG PG 264 URG UNIT 13, LESSON 4, ODD AND EVEN REVISITED, URG PG 39-46; SG PG 279-281 URG UNIT 17, LESSON 4, ADDING HUNDREDS, URG PG 27-32; SG PG 355-356 URG UNIT 17, LESSON 3, COUNTING ONE HUNDRED SEVENTY-TWO, URG PG 23-26; SG PG 353-354

COMPETENCY GOAL 2: The learner will use non-standard units of measure and tell time.	
Objectives	
2.01 For given objects:	
a. Select an attribute (length, capacity, mass) to measure (use non-standard units).	URG UNIT 1, MORE OR LESS, URG PG 29-34, SG PG 7-9 URG UNIT 6, LESSON 1, LINKING UP, URG PT 15-19; SG PG 100-101 URG UNIT 6, LESSON 2, ROLLING ALONG WITH LINKS, URG PG 20-27; SG PG 103-109 URG UNIT 6, LESSON 4, USING UNUSUAL UNITS, URG PG 34-44; SG PG 111-117 URG UNIT 9, LESSON 6, MEASURING WITH CONNECTING LINKS, URG PG 53-57; SG PG 171
b. Develop strategies to estimate size.	URG UNIT 10, LESSON 1, FINDING AREA WITH PENNIES, URG PG 12-17; SG PG 182-185 URG UNIT 10, LESSON 4, THE MIDNIGHT VISIT, URG PG 30-35; AB PG 29-40 URG UNIT 10, LESSON 3, HOW MUCH AREA, URG PG 25-29; SG PG 193-195 URG UNIT 12, LESSON 1, SKYLINES, URG PG 13-21; SG PG 246
c. Compare, using appropriate language, with respect to the attribute selected.	URG UNIT 10, LESSON 2, GOLDILOCKS AND THE THREE RECTANGLES, URG PG 18-24; SG PG 187-191 URG UNIT 10, LESSON 3, HOW MUCH AREA, URG PG 25-29; SG PG 193-195

2.02 Develop an understanding of the concept of time.	URG UNIT 11, LESSON 5, HOW LONG IS 100, URG PG 51-55; SG PG 225
a. Tell time at the hour and half-hour.	
b. Solve problems involving applications of time (clock and calendar).	URG UNIT 5, DPP E, F URG UNIT 7, DPP A URG UNIT 8, DPP B, C URG UNIT 9, DPP C URG UNIT 18, DPP D URG UNIT 20, DPP J
COMPETENCY GOAL 3: The learner will identify, describe, draw, and build basic geometric figures.	
Objectives	
3.01 Identify, build, draw and name parallelograms, squares, trapezoids, and hexagons.	URG UNIT 2, LESSON 1, SHAPES AROUND US, URG PG 15-18 URG UNIT 2, LESSON 2, DESCRIBING SHAPED, URG PG 19-25, SG PG 12-17 URG UNIT 2, LESSON 3, SEVEN WAYS TO MAKE A HEXAGON, URG, PG 26-29, SG PG 19
3.02 Identify, build, and name cylinders, cones, and rectangular prisms.	URG UNIT 15, LESSON 1, TUBES, BOXES, SPHERES, AND CUBES, URG PG 14-19; SG PG 313-316 URG UNIT 15, LESSON 2, SIZING CYLINDERS, URG PG 20-27; SG PG 317-319 URG UNIT 15, LESSON 3, LOOKING AT PRISMS, URG PG 28-36; SG PG 321-326
3.03 Compare and contrast geometric figures.	URG UNIT 2, LESSON 2, DESCRIBING SHAPES, URG PG 19-25, SG PG 12-17 URG UNIT 12, LESSON 4, A WORLD OF CUBIC ANIMALS, URG PG 33-38; SG PG 259-261; AB PG 57-68

	URG UNIT 15, LESSON 4, IN THE SHAPES KITCHEN, URG PG 37-41
3.04 Solve problems involving spatial visualization.	URG UNIT 2, LESSON 4, HOW MANY DOES IT TAKE, URG PG 30-33; SG PG 20-23 URG UNIT 2, LESSON 5, MYSTERY FIGURE, URG PG 34-36 URG UNIT 12, LESSON 1, SKYLINES, URG PT 13-21; SG PG 246 URG UNIT 12, LESON 3, TIMS TOWERS, URG PG 27-32; SG PG 251-257 URG UNIT 19, LESSON 1, MEET MR ORIGIN AND MR ORIGIN'S MAP, URG PG 14-23; SG PG 392-393 URG UNIT 19, LESSON 2, MR. ORIGIN LEFT/RIGHT, URG PG 24-42, SG PG 395-401
COMPETENCY GOAL 4: The learner will understand and use data and simple probability concepts.	
Objectives	
4.01 Collect, organize, describe and display data using line plots and tallies.	URG UNIT 2, LESSON 6, WEATHER 1: EYE ON THE SKY, URG PG 37-45; SG PG 25-29 URG UNIT 3, LESSON 1, FAVORITE COLORS, URG PG 18-23; SG PG 32-33 URG UNIT 5, LESSON 5, COLORS, URG PG 41-50; SG PG 93-97 URG UNIT 5, LESSON 4, I'VE GOT A LITTLE LIST, URG PG 37-40; AB PG 9-18 URG UNIT 3, LESSON 4, POCKETS GRAPH, URG PG 34-37 URG UNIT 3, LESSON 5, POCKETS PARTS, URG PG 38-48; SG PG 47-53 URG UNIT 3, LESSON 6, WHAT'S IN THAT POCKET?, URG PG 49-56; SG PG 55-63 URG UNIT 11, LESSON 6, WEATHER 2 WINTER SKIES, URG PG 56-67; SG

	PG 227-239 URG UNIT 12, LESSON 1, SKYLINES, URG PG 13-21; SG PF 246 URG UNIT 13, LESSON 5, PROBLEM SOLVING, URG PG 47-55; SG PG 283-289 URG UNIT 14, LESSON 2, PETS, URG PG 20-27; SG PG 295-299 URG UNIT 16, LESSON 2, FOOD SORT, URG PG 17-21; SG PG 333-335 URG UNIT 16, LESSON 3, HEALTHY KIDS, URG PG 22-31; SG PG 337-345
4.02 Describe events as certain, impossible, more likely or less likely to occur.	URG UNIT 4, LESSON 4, POCKETS GRAPH, URG PG 34-37 URG UNIT 6, LESSON 2, ROLLING ALONG WITH LINKS , URG 20-27, SG 103-109 URG UNIT 9, LESSON 8, FULL OF BEANS, URG 64-69, SG 178
COMPETENCY GOAL 5: The learner will demonstrate an understanding of classification and patterning.	
Objectives	
5.01 Sort and classify objects by two attributes.	URG UNIT 9, LESSON 8, FULL OF BEANS, URG PG 64-69; SG PG 175-179
5.02 Use Venn diagrams to illustrate similarities and differences in two sets.	(WE DO THIS IN KINDERGARTEN, DATA COLLECTION)

5.03 Create and extend patterns, identify the pattern unit, and translate into other forms.	URG UNIT 7, LESSON 1, LINE UP, URG PG 13-18; SG PG 126 URG UNIT 7, LESSON 2, PICK APART A PATTERN, URG PG 19-24; SG PG 127-131 URG UNIT 7, LESSON 3, NAME PATTERNS, URG PG 25-28; SG PG 139-143 URG UNIT 7, LESSON 4, PATTERN BLOCK SYMMETRY, URG PG 29-33; SG PG 139-143 URG UNIT 7, LESSON 5, BALANCING ACT, URG PG 34-36; SG PG 145 URG UNIT 9, LESSON 4, THE 50 CHART, URG PG 36-41; SG PT 165 URG UNIT 9, LESSON 5, THE 100 CHART, URG PG 42-52; SG PG 167-169

Grade 2

Major Concepts/Skills	**Concepts/Skills to Maintain**
Number sense 0-999	Patterns
Place value	Sort and classify
Addition and subtraction of multi-digit numbers	Line plots, tallies
Length, time	
Symmetry and congruence	
Pictographs	
Probability experiments	
Number sentences	
Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years	

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	
COMPETENCY GOAL 1: The learner will read, write, model, and compute with whole numbers through 999.	
Objectives	
1.01 Develop number sense for whole numbers through 999.	URG UNIT 1, LESSON 1, HUNDREDS OF COINS, URG PG 16-23 URG UNIT 3, LESSON 6, BUTTON PLACE VALUE, URG PG 47-51; SG PG 65-67
a. Connect model, number word, and number using a variety of representations.	URG UNIT 1, LESSON 3, ANIMALS GALORE, URG PG 34-38; SG PG 4 URG UNIT 2, LESSON 1, TILE DESIGNS, URG PG 19-24; SG PG 20-23 URG UNIT 3, ALL LESSONS, URG PG 19-51 URG UNIT 4, LESSON 1, URG PG 15-24; SG PG 70-80 URG UNIT 7, LESSON 1-5, CUBE MODELS, URG PG 16-48; SG PG 166-191 URG UNIT 19, LESSON 3, URG PG 31-45; SG PG 555-563

b. Read and write numbers.	URG UNIT 1, LESSON 4, ANIMAL TRADING CARDS, URG PG 39-44; SG PG 5-9 URG UNIT 2, LESSON 1, TILE DESIGNS, URG PG 19-24; SG PG 20-23 URG UNIT 3, ALL LESSONS, URG PG 19-51. URG UNIT 4, LESSON 2, ARE THEY RELATED, URG PG 25-28; SG PG 81-84 URG UNIT 6, LESSON 4, TAKE YOUR PLACES, PLEASE; URG PG 47-51; SG PG 151-155
c. Compare and order.	URG UNIT 1, LESSON 2, BIRTH MONTHS, URG PG 24-33; SG PG 2-3 URG UNIT 4, LESSON 2, ARE THEY RELATED, URG PG 25-28; SG PG 81-84 UNIT 4, LESSON 3, HOW DO THEY COMPARE? URG PG 29-34, SG PG 85 URG UNIT 13, LESSON 4, UNDERCOVER INVESTIGATION, URG PG 34-41; SG PG 357-362 URG UNIT 17, LESSON 1, EXPLORING 3-D SHAPES, URG PG 17-25; SG PG 488-498 URG UNIT 6, LESSON 4, TAKE YOUR PLACES, PLEASE; URG PG 47-51; SG PG 151-155

d. Rename.	URG UNIT 3, LESSON 2, A HANDFUL OF BUTTONS, URG PG 25-31, SG PG 55-56 URG UNIT 6, LESSON 2, PASTA PLACE VALUE, URG PG 26-33, SG PG 133-142 URG UNIT 6, LESSON 3, EVERY NUMBER HAS ITS PLACE, URG PG 34-46, SG 143-150 URG UNIT 6, LESSON 4, TAKE YOUR PLACES PLEASE, URG PG 47-51, SG 151-155 URG UNIT 7, DPP H, PG 12, DPP L, PG 14 URG UNIT 8, DPP F, PG 10 URG UNIT 9, LESSON 3, THE NAMELESS SCRIBE, URG PG 30-38, SG PG 227, AB PG 45-64 URG UNIT 9, LESSON 4, EXPLORING WITH BASE-TEN PIECES, URG PG 39-43, SG PG 229 URG UNIT 9, LESSON 5, ADDING WITH PAPER AND PENCIL, URG PG 44-50, SG PG 231-235 URG UNIT 11, LESSON 4, BASE-TEN SUBTRACTION, URG PG 35-42, SG PG 295-297 URG UNIT 11, LESSON 5, PAPER AND PENCIL SUBTRACTION, URG PG 43-49, PG 299-303

e. Estimate.	URG UNIT 1, DPP M Unit 6 LESSON 2, PASTA PLACE VALUE, URG PG 26-33; SG PG 133-142 URG UNIT 3, LESSON 2, A HANDFUL OF BUTTONS, URG PG 25-31; SG PG 55-56 URG UNIT 4, LESSON 4, WHEN CLOSE IS GOOD ENOUGH, URG PG 35-42, SG PG 87-91 URG UNIT 5, LESSON 1, THE LONG AND THE SHORT OF IT, URG PG 13-18 SG PG 94-96 URG UNIT 5, LESSON 3, CENTIMETERS AND METERS, URG PG 26-33, SG PG 103-111 URG UNIT 5, LESSON 4, ROLLING ALONG IN CENTIMETERS, URG PG 34-43 , SG PG 113-121 URG UNIT 9, LESSON 1, IN THE BALLPARK, URG PG 16-22, SG PG 215-220 URG UNIT 9, LESSON 4, EXPLORING WITH BASE-TEN PIECES, URG PG 35-43, SG PG 229 URG UNIT 9, LESSON 6, SNACK SHOP ADDITION, URG PG 51-57, SG PG 237-245 URG UNIT 11, LESSON 3, IS IT REASONABLE?, URG PG 31-35, SG PG 293 URG UNIT 11, LESSON 4, BASE-TEN SUBTRACTION, URG PG 35-42, SG PG 295-297 URG UNIT 11, LESSON 5, PAPER AND PENCIL SUBTRACTION, URG PG 43-49, PG 299-303 URG UNIT 11, LESSON 6, SNACK SHOP ADDITION AND SUBTRACTION, URG PG 50-56, SG PG 305-310

f. Use a variety of models to build understanding of place value (ones, tens, hundreds).	URG UNIT 3 LESSON 6 BUTTON PLACE VALUE, URG PG 47-51; SG 65-67 URG Unit 6 LESSON 2 PASTA PLACE VALUE, URG PG pages 26-33; SG PG 133-142 URG UNIT 2, LESSON 2, EXPLORING THE 200 CHART, URG PG 25-38; SG PG 25-35 URG UNIT 3, LESSON 6, BUTTON PLACE VALUE, URG PG 47-51; SG PG 65-67 URG UNIT 6, LESSON 3-4, URG PG 34-51; SG PG 143-155 URG UNIT 9, LESSON 4, EXPLORING WITH BASE-TEN PIECES, URG PG 39-43; SG PG 229 URG UNIT 11, LESSON 4, BASE TEN SUBTRACTION, URG PG 35-42; SG PG 295-297
1.02 Use area or region models and set models of fractions to explore part-whole relationships in contexts.	URG UNIT 16, LESSON 1; INTRODUCING AREA MEASUREMENT, URG PG 14-23; SG PG 452-458 URG UNIT 16, LESSON 2, COUNTING OUT AREAS, URG PG 24-30; SG PG 459-460 URG UNIT 16, LESSON 3, LENGTH, WIDTH, AND AREA, URG PG 31-40; SG PG 467-472 URG UNIT 16, LESSON 4, AREA RIDDLES, URG PG 41-47; SG PG473-477 URG UNIT 16, LESSON 5, AREA AND THE GEOBOARD, URG PG 48-56 URG UNIT 16, LESSON 6, GRANDPA AND WILLIE TILE THE HALL, URG PG 57-62 URG UNIT 2, LESSON 1, TILE DESIGNS, URG PG 19-24; SG PG 20-23 URG UNIT 14, LESSON 3, TILE FRACTION PUZZLES, URG PG 29-34; SG PG 387-391 URG UNIT 20, LESSON 1-2, URG PG 15-49; SG PG 574-587

a. Represent fractions (halves, thirds, fourths)concretely and symbolically.	GRADE 1: URG UNIT 18, LESSON 2, EQUAL AND UNEQUAL, URG PG 22-27; SG PG 371-373 URG UNIT 14, LESSONS 1-4, URG PG 14-41; SG PG 365-378 URG UNIT 20, LESSON 1-2, URG PG 15-49; SG PG 574-587 URG UNIT 20, LESSON 3, GEOBOARD FRACTIONS, URG PG 30-34; SG PG 589-292
b. Compare fractions (halves, thirds, fourths) using models.	GRADE 1: URG UNIT 18, LESSON 3, FRACTION PUZZLES, URG PG 28-33; SG PG 375-385 URG UNIT 14, LESSONS 1-4, URG PG 14-41; SG PG 365-378 URG UNIT 20, LESSONS 1-3, URG PG 15-34; SG PG 574-592
c. Make different representations of the same fraction.	URG UNIT 14, LESSONS 1-4, URG PG 14-41; SG PG 365-378
d. Combine fractions to describe parts of a whole.	GRADE 1; URG UNIT 18, LESSON 3, FRACTION PUZZLES, URG PG 28-33; SG PG 375-385 URG UNIT 14, LESSONS 1-4, URG PG 14-41; SG PG 365-378 URG UNIT 20, LESSON 2, CLASSROOM FRACTIONS, URG PG 24-29; SG PG 583-587

1.03 Create, model, and solve problems that involve addition, subtraction, equal grouping, and division into halves, thirds, and fourths (record in fraction form).	GRADE 1: URG UNIT 18, LESSON 4, A CLASS FULL OF FRACTIONS, URG PG 34-38; SG PG 389 GRADE 1: URG UNIT 18. LESSON 5, FRACTION FINALE; URG PG 39-43; SG PG 389 URG UNIT 14, LESSONS 1-4, URG PG 14-41; SG PG 365-378 URG UNIT 19, LESSON 3, FUNCTION MACHINES, URG PG 31-45; SG PG 555-563
1.04 Develop fluency with multi-digit addition and subtraction through 999 using multiple strategies.	URG, UNIT 2, LESSON 4, CHECK IT OUT, URG PG 46-52; AB PG 37-52 URG UNIT 6, DPP ADDITION FACTS, GROUP D URG UNIT 7, DPP ADDITION FACTS, GROUP E URG UNIT 8, DPP ADDITION FACTS, GROUP F URG UNIT 9, DPP ADDITION FACTS, GROUP G URG UNIT 10, DPP ADDITION FACTS, GROUP 1-G URG UNIT 11, DPP SUBTRACTION FACTS, GROUP A URG UNIT 12, DPP SUBTRACTION FACTS, GROUP B URG UNIT 13, DPP SUBTRACTION FACTS, GROUP C URG UNIT 14, DPP SUBTRACTION FACTS, GROUP D URG UNIT 15, DPP SUBTRACTION FACTS, GROUP E URG UNIT 16, DPP SUBTRACTION FACTS, GROUP F URG UNIT 17, DPP SUBTRACTION FACTS, GROUP G URG UNIT 18, DPP SUBTRACTION FACTS, GROUP A-D

	URG UNIT 19, DPP SUBTRACTION FACTS, GROUP E-G URG UNIT 20, DPP SUBTRACTION FACTS, GROUP A-G URG UNIT 3, LESSON 4, ADDITION WITH TRIANGLE FLASH CARDS, URG PG 36-41; SG PG 59-61
a. Strategies for adding and subtracting numbers.	URG, UNIT 2, LESSON 4, CHECK IT OUT, URG PG 46-52; AB PG 37-52 URG UNIT 2, LESSON 7, URG PG 63-69; SG PG 45-47 URG UNIT 3, LESSON 4, ADDITION WITH TRIANGLE FLASH CARDS, URG PG 36-41; SG PG 59-61 URG UNIT 7, LESSON 5, CUBE MODEL PROBLEMS, URG PG 42-48; SG PG 185-191 URG UNIT 9, LESSONS 1-6, URG PG 16-57; SG PG 215-245 URG UNIT 11, LESSONS 1-6, URG PG 19-56; SG PG 285-310
b. Estimation of sums and differences in appropriate situations.	URG UNIT 2, LESSON 5, SUBTRACTION FACTS, URG PG 53-58; SG PG 39-41 URG UNIT 3, LESSON 2, HANDFUL OF BUTTONS, URG PG 25-31; SG PG 55-56 URG UNIT 9, LESSON 1, IN THE BALLPARK, URG PG 16-22; SG PG 215-220 URG UNIT 11, LESSON 3, IS IT REASONABLE, URG PG 31-34; SG PG 293

c. Relationships between operations.	URG UNIT 3, LESSON 5, BUTTON SOLUTIONS, URG PG 42-46; SG PG 63-64 URG UNIT 9, LESSON 6, SNACK SHOP ADDITION, URG PG 51-57; SG PG 237-245 URG UNIT 11, LESSONS 5-6; URG PG 43-56; SG PG 299-310 URG UNIT 12, LESSON 4, ZOO STICKERS AND STAMPS, URG PG 35-41; SG PG 331-334 URG UNIT 19, LESSON 3, URG PG 31-45; SG PG 555-563
1.05 Create and solve problems using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens and hundreds.	URG UNIT 2, LESSON 6, THE ZOO GIFT SHOP COVER UP, URG PG 59-62; SG PG 43 URG UNIT 12, LESSON 1-2, URG PG 19-28; SG PG 313-316 URG UNIT 19, LESSON 3, URG PG 31-45; SG PG 555-563
1.06 Define and recognize odd and even numbers.	URG UNIT 19, LESSON 3, URG PG 31-45; SG PG 555-563

COMPETENCY GOAL 2: The learner will recognize and use standard units of metric and customary measurement.	
Objectives	
2.01 Estimate and measure using appropriate units.	URG UNIT 4, LESSON 1, HIGH, WIDE, AND HANDSOME, URG PG 15-24; SG PG 70-80 URG UNIT 4, LESSON 4, WHEN CLOSE IS GOOD ENOUGH, URG PG 35-52; SG PG 87-91 URG UNIT 5, LESSON 4, ROLLING ALONG IN CENTIMETERS, URG PT 34-43; SG PG 113-121 URG UNIT 6, LESSON 6, THE PRINCESS AND HER PLAYMATE, URG PG 62-65; AB PG 22-30 URG UNIT 7, LESSON 2, CUBE MODEL PLANS, URG PG 21-30; SG PG 171-176 URG UNIT 10, LESSONS 1-5; VOLUME, URG PG 31-62; SG PG 257-261 URG UNIT 8, LESSON 1-3, MASS, URG PG 14-42; SG PG 194-211 URG UNIT 16, LESSONS 1-6, URG PG 14-62; SG PG 452-486 URG UNIT 18, LESSONS 1-5, URG PG 13-50; SG PG 518-543

a. Length (meters, centimeters, feet, inches, yards).	URG UNIT 4, LESSON 4, WHEN CLOSE IS GOOD ENOUGH, URG PG 35-52; SG PG 87-91 URG UNIT 5, LESSON 1, THE LONG AND SHORT OF IT, URG PG 13-18; SG PG 94-96 URG UNIT 5, LESSON 3, CENTIMETERS AND METERS, URG PG. 36-33; SG PG 103-111 URG UNIT 5, LESSON 4, ROLLING ALONG IN CENTIMETERS, URG PG 34-43; SG PG 113-121 URG UNIT 16, LESSON 3, LENGTH, WIDTH, AND AREA, URG PG 31-40; SG PG 473-477 URG UNIT 18, LESSON 3, RAIN FOREST TRAILS, URG PG 31-36; SG PG 533-534
b. Temperature (Fahrenheit).	
2.02 Tell time at the five-minute intervals.	URG UNIT 6, LESSON 1, TAKE YOUR TIME, URG PG 18-25; SG PG 125-132 URG UNIT 6, DPP I, K, O URG UNIT 7, DPP D, N URG UNIT 8, DPP B URG UNIT 20, LESSON 1, USEFUL FRACTIONS, URG PG 15-23; SG PG 574-581

COMPETENCY GOAL 3: The learner will perform simple transformations.	
Objectives	
3.01 Combine simple figures to create a given shape.	URG UNIT 7, LESSON 1, CUBES AND PLANS, URG PG 16-20; SG PG 166-170 URG UNIT 15, LESSONS 1-5, URG PG 15-50; SG PG 419-450 URG UNIT 16, LESSON 5, AREA AND THE GEOBOARD, URG PT 48-56; SG PG 479-286 URG UNIT 17, LESSONS 1-6, URG PG 17-63; SG PG 488-515
3.02 Describe the change in attributes as two- and three-dimensional figures are cut and rearranged.	URG UNIT 7, LESSON 4, 3-D BUILDING PLANS, URG PG 36-41; SG PG 181-184 URG UNIT 7, LESSON 5, CUBE MODEL PROBLEMS, URG PG 42-48; SG PG 185-191 URG UNIT 7, LESSON 3, ARCHITECTS IN CUBELAND, URG PG 31-35; SG PG 177-179 URG UNIT 15, LESSON 2, URG PG 20-26; SG PG 421-423 URG UNIT 17, LESSONS 1-3, URG PG 17-47; SG PG 488-505 URG UNIT 18, LESSON 2, MAPPING OUR WORLD, URG PG 24-30; SG PG 525-532
3.03 Identify and make:	
a. Symmetric figures.	URG UNIT 15, LESSON 4-5, URG PG 35-50; SG PG 437-450 URG UNIT 16, LESSON 5, AREA OF THE GEOBOARD; URG PG 48-56; SG PG 479-486 URG UNIT 16, LESSON 6, GRANDPA AND WILLIE TILE THE HALL, URG PG 57-62; AB PG 77-89

b. Congruent figures.	
COMPETENCY GOAL 4: The learner will understand and use data and simple probability concepts.	
Objectives	
4.01 Collect, organize, describe and display data using Venn diagrams (three sets) and pictographs where symbols represent multiple units (2's, 5's, 10's).	URG UNIT 2, LESSON 3, MY FAVORITE, URG PG 39-45; SG PG 37-38 URG UNIT 1, LESSON 2, BIRTH MONTHS, URG PG 24-33; SG PT 2-3 URG UNIT 3, LESSON 3, BUTTON SIZER, URG PG 32-35; SG PG 57-58 URG UNIT 4, LESSONS 1-3, URG PG 15-34; SG PG 70-85 URG UNIT 6, LESSON 5, MARSHMALLOWS AND CONTAINERS, URG PG 52-61; SG PG 157-163 URG UNIT 13, LESSONS 1-4; URG PG 14-41; SG PG 344-362 URG UNIT 18, LESSON 3, RAIN FOREST TRAILS, URG PG 31-36; SG PG 533-534 URG UNIT 19, LESSON 2, URG PG 21-30; SG PG 546-554

4.02 Conduct simple probability experiments; describe the results and make predictions.	URG UNIT 2, LESSON 3, MY FAVORITE, URG PG 39-45; SG PG 37-38 URG UNIT 1, LESSON 2, BIRTH MONTHS, URG PG 24-33; SG PT 2-3 URG UNIT 3, LESSON 2, HANDFUL OF BUTTONS, URG PG 25-31; SG PG 55-56 URG UNIT 3, LESSON 3, BUTTON SIZER, URG PG 32-35; SG PG 57-58 URG UNIT 5, LESSON 4, ROLLING ALONG IN CENTIMETERS, URG PG 34-43; SG PG 113-121 URG UNIT 6, LESSON 5, MARSHMALLOWS AND CONTAINERS, URG PG 52-61; SG PG 157-163 URG UNIT 13, LESSON 4, UNDERCOVER INVESTIGATION, URG PG 34-41; SG PG 357-362 URG UNIT 19, LESSON 2, COUNTING KIDS, URG PG 21-30; SG PG 546-554

COMPETENCY GOAL 5: The learner will recognize and represent patterns and simple mathematical relationships.	
Objectives	
5.01 Identify, describe, translate, and extend repeating and growing patterns.	URG UNIT 2, LESSON 2, EXPLORING THE 200 CHART, URG PG 25-38; SG PG 25-35 URG UNIT 1, LESSON 1, TILE DESIGNS, URG PG 19-24; SG PG 20-23 URG UNIT 19, LESSON 4, GZORP, URG PG 46-55; SG PG 565-571 URG UNIT 3, LESSON 6, BUTTON PLACE VALUE, URG PG 47-51; SG PG 65-67 URG UNIT 12, LESSON 1, GROUPING NUMBER WITH REMAINDERS, URG PG 16-19; SG PG 313-316 URG UNIT 16, LESSONS 5-6, URG PG 48-62; SG PF 479-486, AB PG 77-89 URG UNIT 18, LESSON 5, LORDS OF THE RIVER; THE GIANT OTTER, URG PG 45-50; AB PG 90-101 URG UNIT 19, LESSON 4, GZORP, URG PG 46-65; SG PG 565-571
5.02 Write addition and subtraction number sentences to represent a problem; use symbols to represent unknown quantities.	URG UNIT 1, LESSON 4, ANIMAL TRADING CARDS, URG PG 39-44, SG PG 5-9 URG UNIT 12, LESSON 4, ZOO STICKERS AND STAMPS, URG PG 35-41; SG PG 331-334 URG UNIT 18, LESSONS 1-5, URG PG 13-50; SG PG 518-543 URG UNIT 19, LESSONS 1-4, URG PG 15-55; SG PG 546-571

MATHEMATICS STANDARD COURSE STUDY AND GRADE LEVEL COMPETENCIES K-12
Grade 3

Major Concepts/Skills	**Concepts/Skills to Maintain**
Number sense 0 - 9,999	Addition and subtraction of multi-digit numbers
Multiplication and division	Length and time
Non-negative rational numbers	Symmetry and congruence
Capacity and mass	Line plots, tallies, pictographs
Coordinate grids	Venn diagrams
Circle graphs	
Permutations and combinations	
Growing patterns	
Variables	
Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years	

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	**GRADE 3**
COMPETENCY GOAL 1: The learner will model, identify, and compute with whole numbers through 9,999.	
Objectives	
1.01 Develop number sense for whole numbers through 9,999.	Unit 1, 2, 3, 4, 5, 6, 10, 12, 13
a. Connect model, number word, and number using a variety of representations.	URG UNIT 1, LESSON 1, FIRST NAMES, URG PG 19-32; SG PG 2-6; DAB PG 5-8 URG UNIT 4, LESSON 1, BREAKING NUMBERS INTO PARTS, URG PG 9-28; DAB PG 67-69 URG UNIT 6, LESSON 1-2, URG PG 21-31; SG PG 66 URG UNIT 10, LESSONS 1-3, URG UNIT 19-45; SG PG 130-135 URG UNIT 14, LESSON 3-4, URG PG 32-53; SG PG 202-208

b. Build understanding of place value (ones through thousands).	URG UNIT 4, LESSON 2-3, URG PG 29-56; DAB PG 71-76; SG PG 44-51 URG UNIT 2, THE COAT OF MANY BITS, URG PG 26-31, SG PG 66 URG UNIT 6, LESSON 3-4, URG PG 32-58; SG PG 67-76; DAB PG 103-108
c. Compare and order.	URG UNIT 4, LESSON 4, BUBBLE SORT, URG PG 57-59
1.02 Develop fluency with multi-digit addition and subtraction through 9,999 using:	URG UNIT 1, LESSON 2, TURN OVER, URG PG 33-36; SG PG 7 URG UNIT 2, LESSON 1-5, URG PG 22-64K, SG PG 14-27 URG UNIT 6, LESSON 7, PALINDROMES, URG PG 77-82 URG UNIT 10, LESSON 2-5, URG PG 33-59, SG PG 135-137 URG UNIT 13, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 14, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 20, LESSONS 1-5, URG PG 15-22, SG PG 301

a. Strategies for adding and subtracting numbers.	URG UNIT 1, LESSON 6, A SAMPLE OF PROBLEMS, URG OG 60-63; SG PG 11 URG UNIT 2, LESSON 1-5, URG PG 22-64K, SG PG 14-27 URG UNIT 2, LESSONS 6-7, URG PG 65-84 URG, UNIT 6, LESSON 7, PALINDROMES, URG PG 77-82 URG UNIT 6, LESSON 8, URG PG 83-87, DAB PG 109 URG UNIT 10, LESSON 2-5, URG PG 33-59, SG PG 135-137 URG UNIT 12, LESSON 6, FOCUS ON WORD PROBLEMS, URG PG 74-77; SG PG 176—177 URG UNIT 13, LESSON 5, REVIEWING ADDITIONA AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 14, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215
b. Estimation of sums and differences in appropriate situations.	URG UNIT 2, LESSONS 1-5, URG PG 22-64 URG UNIT 6, CLOSE ENOUGH, URG PG 59-67; SG PG 77-80 URG UNIT 13, LESSON 5, REVIEWING ADDITIONA AND SUBTRACTION, URG PG 54-63; SG PG 209-215
c. Relationships between operations.	URG UNTIT 10, LESSONS 1-10, URG PG 21-77, SG PG 140-155 URG UNIT 13, LESSON 5, REVIEWING ADDITIONA AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 14, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298

1.03 Develop fluency with multiplication from 1x1 to 12x12 and division up to two-digit by one-digit numbers using:	URG UNIT 7, LESSONS 1-6, URG PG 20-72; SG PG 82-94; DAB PG 115-128 URG UNTIT 10, LESSONS 1-10, URG PG 21-77, SG PG 140-155 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298
a. Strategies for multiplying and dividing numbers.	URG UNIT 3, LESSON 1-6, URG PG 18-55; SG PG 32-41 URG UNIT 7, LESSONS 1-6, URG PG 20-72 URG UNTIT 10, LESSONS 1-10, URG PG 21-77, SG PG 140-155 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298
b. Estimation of products and quotients in appropriate situations.	URG UNIT 7, LESSONS 1-6, URG PG 20-72 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298
c. Relationships between operations.	URG UNIT 7, LESSONS 1-6, URG PG 20-72 URG UNTIT 10, LESSONS 1-10, URG PG 21-77, SG PG 140-155 URG UNIT 13, LESSON 5, REVIEWING ADDITIONA AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298

1.04 Use basic properties (identity, commutative, associative, order of operations) for addition, subtraction, multiplication, and division.	URG UNIT 2, LESSON 5, SUBTRACTION FACTS STRATEGIES, URG PG 58-64; SG PG 22-27 URG UNIT 2, LESSONS 6-8, URG PG 65-84; DAB PG 29, 37-43 URG UNIT 3, LESSONS 1-6, URG PG 18-55; SG PG 32-41 URG UNIT 7, LESSONS 1-8, URG PG 20-72; SG PG 82-94 URG UNIT 12, LESSON 6, FOCUS ON WORD PROBLEMS, URG PG 74-77; SG PG 176-177 URG UNIT 13, LESSON 5, REVIEWING ADDITIONA AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 14, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 15, LESSON 5, NOTHING TO IT, URG PG 55-56; SG PG 233 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298
1.05 Use area or region models and set models of fractions to explore part-whole relationships.	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254
a. Represent fractions concretely and symbolically (halves, fourths, thirds, sixths, eighths).	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254
b. Compare and order fractions (halves, fourths, thirds, sixths, eighths) using models and benchmark numbers (zero, one-half, one); describe comparisons.	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254

c. Model and describe common equivalents, especially relationships among halves, fourths, and eighths, and thirds and sixths.	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254
d. Understand that the fractional relationships that occur between zero and one also occur between every two consecutive whole numbers.	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254
e. Understand and use mixed numbers and their equivalent fraction forms.	URG UNIT 13, LESSON 1-5, URG PG 16-51; SG PG 180-191, DAB PG 199-213 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 17, LESSON 1-4, URG PG 14-54; SG PG 252-263; DAB PG 253-254
1.06 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	URG UNIT 3, LESSONS 1-6, URG PG 18-55; SG PG 32-41 URG UNIT 5, LESSON 6, USING NUMBER SENSE AT THE BO0K SALE, URG PG 56-58; SG PG 62-64 URG UNIT 10, LESSONS 1-10, URG PG 21-77, SG PG 140-155 URG UNIT 14, LESSON 5, REVIEWING ADDITION AND SUBTRACTION, URG PG 54-63; SG PG 209-215 URG UNIT 15, LESSON 5, NOTHING TO IT, URG PG 55-56; SG PG 233 URG UNIT 16, LESSON 5, PAYING TAXES PROBLEMS, URG PG 57-59; SG PG 249 URG UNIT 19, LESSONS 1-4, URG PG 19-53; SG PG 286-298

COMPETENCY GOAL 2: The learner will recognize and use standard units of metric and customary measurement.	
Objectives	
2.01 Solve problems using measurement concepts and procedures involving:	
a. Elapsed time.	URG UNIT 4, LESSONG 5-6, URG PG 60-72, SG PG 54-56 URG UNIT 14, LESSON 1-2; URG PG 15-31; SG PG 194-200; DAB PG 221-227
b. Equivalent measures within the same measurement system.	URG UNIT 5, LESSON 1-5, URG PG 16-55; SG PG 28-61; AB PT 26-42 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 15, LESSON 2, MEASURING TO THE NEAREST TENTH, URG PG 29-39, SG PG 222-226, DAB PG 239-240 URG UNIT 16, VOLUME, LESSONS 1-4, URG PG 15-56; SG PG 236-248; DAB PG 247-248
2.02 Estimate and measure using appropriate units.	URG UNIT 14, LESSON 4, URG PG 44-53, SG PG 203-208 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 15, LESSON 2, MEASURING TO THE NEAREST TENTH, URG PG 29-39, SG PG 222-226, DAB PG 239-240 URG UNIT 16, VOLUME, LESSONS 1-4, URG PG 15-56; SG PG 236-248; DAB PG 247-248

a. Capacity (cups, pints, quarts, gallons, liters).Length (miles, kilometers)	URG UNIT 7, LESSON 6, WALKING AROUND SHAPES, URG PG 62-72; DAB PG 123-128 URG UNIT 8, LESSONS 1-6, URG PG 17-63; SG PG 96-111 URG UNIT 15, LESSON 4, LENGTH VS NUMBER, URG PG 44-54; SG PG 227-232 URG UNIT 15, LESSON 2, MEASURING TO THE NEAREST TENTH, URG PG 29-39, SG PG 222-226, DAB PG 239-240 URG UNIT 16, VOLUME, LESSONS 1-4, URG PG 15-56; SG PG 236-248; DAB PG 247-248
b. Mass (ounces, pounds, grams, kilograms).	URG UNIT 9, LESSONS 1-3, URG PG 16-46; SG PG 114-127; DAB PG 139-142
c. Temperature (Fahrenheit, Celsius).	
COMPETENCY GOAL 3: The learner will recognize and use basic geometric properties of two- and three-dimensional figures.	
Objectives	URG UNIT 12
3.01 Use appropriate vocabulary to compare, describe, and classify two- and three-dimensional figures.	URG UNIT 12, LESSONG 1-5, URG PG 17-73, SG PG 158-175 URG UNIT 18, LESSON 1-5, URG PG 17-59; SG PG 266-283; DAB PG 263-165
3.02 Use a rectangular coordinate system to solve problems.	URG UNIT 12, LESSONG 1-5, URG PG 17-73, SG PG 158-175
a. Graph and identify points with whole number and/or letter coordinates.	URG UNIT 12, LESSONG 1-5, URG PG 17-73, SG PG 158-175
b. Describe the path between given points on the plane.	URG UNIT 12, LESSONG 1-5, URG PG 17-73, SG PG 158-175

COMPETENCY GOAL 4: The learner will understand and use data and simple probability concepts.	
Objectives	
4.01 Collect, organize, analyze, and display data (including circle graphs and tables) to solve problems.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10 URG UNIT 2, LESSON 1, ADDITION FACTS STRATEGIES, URG PG 22-30; SG PG 14-15; DAB PG 25-27 URG UNIT 14, LESSONS 3-4, URG PG 32-53; SG PG 202-208
4.02 Determine the number of permutations and combinations of up to three items.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10
4.03 Solve probability problems using permutations and combinations.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10 URG UNIT 2, LESSON 2, SPINNING SUMS, URG PG 31-41; SG PG 16-18
COMPETENCY GOAL 5: The learner will recognize, determine, and represent patterns and simple mathematical relationships.	
Objectives	
5.01 Describe and extend numeric and geometric patterns.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10 URG UNIT 2, LESSON 2, SPINNING SUMS, URG PG 31-41; SG PG 16-18 URG UNIT 3, LESSON 1, T-SHIRT FACTORY, URG PG 18-24; SG PG 32-33
5.02 Extend and find missing terms of repeating and growing patterns.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10
5.03 Use symbols to represent unknown quantities in number sentences.	URG UNIT 1, LESSONS 1,3; URG PG 19-22, 37-49; SG PG 2-6, 8-10 URG UNIT 2, LESSON 2, SPINNING SUMS, URG PG 31-41; SG PG 16-18 URG UNIT 2, LESSON 6, SPINNING DIFFERENCES, URG PG 65-74; DAB PG 29
5.04 Find the value of the unknown in a number sentence.	URG UNIT 3, LESSON 4, MAKING TEAMS, URG PG 40-45; DAB PG 55-58

MATHEMATICS STANDARD COURSE STUDY AND GRADE LEVEL COMPETENCIES K-12
Grade 4

Major Concepts/Skills	**Concepts/Skills to Maintain**
Number sense 0.01-99,999	Whole number computation
Multiplication and division of multi-digit numbers	Non-negative rational numbers
Perimeter and area	Length, time, capacity, and mass
Transformations	Symmetry and congruence
Line graphs	Coordinate grids
Median, mode, and range	Circle graphs
Variables in number sentences	Permutations and combinations
Proportional reasoning	
Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years.	

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	**GRADE 4**
COMPETENCY GOAL 1: The learner will read, write, model, and compute with non-negative rational numbers.	
Objectives	
1.01 Develop number sense for rational numbers 0.01 through 99,999.	
a. Connect model, number word, and number using a variety of representations.	URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 15, USING PATTERNS; URG PG 22-86; SG PG 402-410; SG PG 406-423

b. Build understanding of place value (hundredths through ten thousands).	URG UNIT 3, LESSON 3, PLACE VALUE, URG PG 37-45 URG UNIT 3, LESSON 4, TIMS CANDY COMPANY, URG PG 46-60; SG PG 68-75 URG UNIT 6, PLACE VALLUE PATTERNS, LESSONS 1-7, URG PG 21-88; SG PG 150-177; DAB PG 73-82 URG UNIT 10 LESSONS 2-3, URG PG 37-61; SG PG 276-287; DAB PG 167-177
c. Compare and order rational numbers.	URG UNIT 6, PLACE VALLUE PATTERNS, LESSONS 1-7, URG PG 21-88; SG PG 150-177; DAB PG 73-82
d. Make estimates of rational numbers in appropriate situations.	URG UNIT 6, PLACE VALUE PATTERNS, LESSONS 1-7, URG PG 21-88; SG PG 150-177; DAB PG 73-82
1.02 Develop fluency with multiplication and division:	URG UNIT 3, LESSON 1, MULTIPLYING, URG PG 20-29; SG PG 58-63; DAB PG 29-33 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 7, PATTERNS IN MULTIPLICATION, LESSONS 1-8, URG PG 34-97; SG PG 184-213 URG UNIT 8, LESSON 8, FACTS I KNOW; URG PG 95-100; SG PG 234-236; DAB PG 115-119 URG UNIT 13, DIVISION, LESSONS 1-5; URG PG 26-84; SG PG 358-381
a. Two-digit by two-digit multiplication (larger numbers with calculator).	URG UNIT 3, LESSON 1, MULTIPLYING, URG PG 20-29; SG PG 58-63; DAB PG 29-33 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 6, LESSON 7, 9 TO 5 WAR, URG PG 85-88; SG PG 175-177; DAB PG 79-82 URG UNIT 7, LESSON 1,4,5,7, URG PG 26-33; 62-69; 70-77; 86-92 URG UNIT 11, LESSONS 1-7, URG PG 23-80; SG PG 298-323

b. Up to three-digit by two-digit division (larger numbers with calculator).	URG UNIT 3, LESSON 1, MULTIPLYING, URG PG 20-29; SG PG 58-63; DAB PG 29-33 URG UNIT 7, LESSON 1,4,5,7, URG PG 26-33; 62-69; 70-77; 86-92 URG UNIT 13, DIVISION, LESSONS 1-5; URG PG 26-84; SG PG 358-381
c. Strategies for multiplying and dividing numbers.	URG UNIT 3, LESSON 1, MULTIPLYING, URG PG 20-29; SG PG 58-63; DAB PG 29-33 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 7, PATTERNS IN MULTIPLICATION, LESSONS 1-8, URG PG 34-97; SG PG 184-213 URG UNIT 11, LESSONS 1-7, URG PG 23-80; SG PG 298-323 URG UNIT 13, DIVISION, LESSONS 1-5; URG PG 26-84; SG PG 358-381 URG UNIT 16, LESSONS 1-6; URG PG 19-75; SG PG 430-439
d. Estimation of products and quotients in appropriate situations.	URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 6, PLACE VALLUE PATTERNS, LESSONS 1-7, URG PG 21-88; SG PG 150-177; DAB PG 73-82 URG UNIT 7, LESSON 6-7, URG PG 78-92; SG PG 202-210 URG UNIT 13, LESSON 3, MORE DIVISION, URG PG 55-65; SG PG 371-373
e. Relationships between operations.	URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 7, LESSON 1,3; URG PG 26-33, 47-61; SG PG 180-183, 190-192
1.03 Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers.	URG UNIT 1, LESSON 6, URG PG 88-94; SG PG 24-25 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 12, EXPLORING FRACTIONS, LESSONS 1-9; URG PG 24-101; SG PG 326-355

1.04 Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.	URG UNIT 6, PLACE VALUE PATTERNS, LESSONS 1-7, URG PG 21-88; SG PG 150-177; DAB PG 73-82
a. Develop and analyze strategies for adding and subtracting numbers.	URG UNIT 1, LESSON 6, URG PG 88-94; SG PG 24-25
b. Estimate sums and differences.	
c. Judge the reasonableness of solutions.	URG UNIT 1, LESSON 6, URG PG 88-94; SG PG 24-25
1.05 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	URG UNIT 1, LESSON 6, URG PG 88-94; SG PG 24-25 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 6, LESSON 3, 6; URG PG 47-61; 78-85; SG PG 190-192; 202-206
COMPETENCY GOAL 2: The learner will understand and use perimeter and area.	
Objectives	
2.01 Develop strategies to determine the area of rectangles and the perimeter of plane figures.	URG UNIT 2, LESSONS 1-7, URG PG 31-98; SG PG 28-56
2.02 Solve problems involving perimeter of plane figures and areas of rectangles.	URG UNIT 2, LESSONS 1-7, URG PG 31-98; SG PG 28-56
COMPETENCY GOAL 3: The learner will recognize and use geometric properties and relationships.	
Objectives	
3.01 Use the coordinate system to describe the location and relative position of points and draw figures in the first quadrant.	(WE DO THIS IN UNIT 8 OF GRADE THREE)
3.02 Describe the relative position of lines using concepts of parallelism and perpendicularity.	URG UNIT 9, LESSON 1, LINES, URG PG 26-34, SG PG 238-242

3.03 Identify, predict, and describe the results of transformations of plane figures. a. Reflections. b. Translations. c. Rotations.	URG UNIT 9, LESSON 3, SYMMETRY, URG PG 49-62, SG PG 251-255, DAB PG 131-139
COMPETENCY GOAL 4: The learner will understand and use graphs, probability, and data analysis.	
Objectives	
4.01 Collect, organize, analyze, and display data (including line graphs and bar graphs to solve problems.	URG UNIT 1, LESSONS 1-5, URG PG 27-87; SG PG 2-23 URG UNIT 5, USING DATA TO PREDICT, URG PG 20-76; SG PG 120-124; AB PG 15-28 URG UNIT 8, LESSON 3, VOLUME VS NUMBER, URG PG 48-58; SG PG 225-229; DAB PG 105-111 URG UNIT 10, LESSON 4, DOWNHILL RACER; URG PG 62-77; SG PG 288-295 URG UNIT 13, LESSON 1, TV SURVEY, URG PG 26-42; SG PG 358-363; DAB PG 219-221 URG UNIT 13, LESSON 5, PLANT GROWTH, URG PG 75-84; SG PG 379-381
4.02 Describe the distribution of data using median, range and mode.	URG UNIT 1, LESON 3, AN AVERAGE ACTIVITY; URG PG 50-59; SG PG 12-16 URG UNIT 5, USING DATA TO PREDICT, URG PG 20-76; SG PG 120-124; AB PG 15-28
4.03 Solve problems by comparing two sets of related data.	URG UNIT 1, LESSONS 1-5, URG PG 27-87; SG PG 2-23 URG UNIT 5, USING DATA TO PREDICT, URG PG 20-76; SG PG 120-124; AB PG 15-28

4.04 Design experiments and list all possible outcomes and probabilities for an event.	URG UNIT 1, LESSONS 1-5, URG PG 27-87; SG PG 2-23 URG UNIT 5, USING DATA TO PREDICT, URG PG 20-76; SG PG 120-124; AB PG 15-28 URG UNIT 14; CHANCY PREDICTIONS, URG PG 22-78; SG PG 384-399; DAB PG 231-236; AB PG 71-90
COMPETENCY GOAL 5: The learner will demonstrate an understanding of mathematical relationships.	
Objectives	
5.01 Identify, describe, and generalize relationships in which:	
a. Quantities change proportionally.	URG UNIT 3, NUMBERS AND NUMBER OPERATIONS, URG PG 20-92; SG PG 58-93 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118
b. Change in one quantity relates to change in a second quantity.	URG UNIT 3, NUMBERS AND NUMBER OPERATIONS, URG PG 20-92; SG PG 58-93 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118
5.02 Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.	URG UNIT 3, NUMBERS AND NUMBER OPERATIONS, URG PG 20-92; SG PG 58-93 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 9, SHAPES AND SOLIDS, LESSONS 1-8; URG PG 26-106; SG PG 238-267; DAB PG 127-151

5.03 Verify mathematical relationships using:	
a. Models, words, and numbers.	URG UNIT 3, NUMBERS AND NUMBER OPERATIONS, URG PG 20-92; SG PG 58-93 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 9, SHAPES AND SOLIDS, LESSONS 1-8; URG PG 26-106; SG PG 238-267; DAB PG 127-151
b. Order of operations and the identity, commutative, associative, and distributive properties.	URG UNIT 3, NUMBERS AND NUMBER OPERATIONS, URG PG 20-92; SG PG 58-93 URG UNIT 4, PRODUCTS AND FACTORS, URG PG 22-73; SG PG 96-118 URG UNIT 7, LESSON 1, ORDER OF OPERATIONS, URG PG 26-35; SG PG 180-183

MATHEMATICS STANDARD COURSE STUDY AND GRADE LEVEL COMPETENCIES K-12
Grade 5

Major Concepts/Skills	Concepts/Skills to Maintain
Number sense 0.001-999,999	Whole number computation
Addition and subtraction of non-negative rational numbers	Transformations
Properties of plane figures	Perimeter and area
Bar graphs and stem-and-leaf plots	Coordinate grids
Rates of change	Line graphs
Simple equations and inequalities	Median, mode, and range
Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years	

Strands: Number and Operations, Measurement, Geometry, Data Analysis and Probability, Algebra	
COMPETENCY GOAL 1: The learner will understand and compute with non-negative rational numbers.	
Objectives	
1.01 Develop number sense for rational numbers 0.001 through 999,999.	UNITS 1-16
a. Connect model, number word, and number using a variety of representations.	URG UNIT 1, LESSONS 1-6, URG PG 24-99; SG PG 2-24 UNIT 7, LESSONS 1-2, URG PG 25-60; SG PG 222-237 URG UNIT 5, LESSONS 1-3, URG PG 19-31; SG PG 144-159
b. Build understanding of place value (thousandths through hundred thousands).	URG UNIT 2, LESSON 3, BASE TEN, URG PG 55-89 URG UNIT 2, LESSON 4, CHINESE ABACUS, URG PG 90-111; SG PG 39-45 URG UNIT 7, LESSON 2, DECIMAL MODELS, URG PG 47-60; SG PG 230-237; DAB PG 103 URG UNIT 7, LESSON 4, ADDING AND SUBTRACTING DECIMALS, URG PG 73-82; SG PG 243-246; 113-118

c. Compare and order rational numbers.	URG UNIT 2, LESSON 1, READING AND WRITING BIG NUMBERS, URG PG 28-39; SG PG 26-34; DAB PF 13-19 URG UNIT 3, LESSON 4, COMPARING FRACTIONS, URG PG 60-67; SG PG 82-84 URG UNIT 7, LESSON 3, COMPARING AND ROUNDING DECIMALS, URG PG 61-72; SG PG 238-242; DAB PG 105-111
d. Make estimates of rational numbers in appropriate situations.	URG UNIT 2, LESSON 6, ESTIMATING PRODUCTS, URG PG 132-139; SG PG 56-59 URG UNIT 7, LESSON 7-9, URG PG 96-120; SG PG 255-267 URG UNIT 9, LESSON 2, DIVISION, URG PG 33-45; SG PG 294-298
1.02 Develop fluency in adding and subtracting non-negative rational numbers (halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, thousandths; mixed numbers).	URG UNIT 1, LESSON 6, PRACTICE PROBLEMS, URG PG 93-99; SG PG 24 URG UNIT 3, lessons 1-7, FRACTIONS AND RATIOS, URG PG 26-114; SG PG 68-99, DAB PG 35-39 URG UNIT 7, LESSONS 1-4, URG PG 25-82; SG PG 222-246; DAB PG 101-118 URG UNIT 12, LESSON 2, ADDING MIXED NUMBERS, URG PG 24-30; SG PG 380-382
a. Develop and analyze strategies for adding and subtracting numbers.	URG UNIT 3, LESSONS 6-7, URG PG 87-114; SG PG 94-99 URG UNIT 7, LESSONS 1-5; URG PG 225-89; SG PG 222-229 URG UNIT 8, LESSONS 1-9; URG PG 21-99; SG PG 270-283 URG UNIT 12, LESSON 2, ADDING MIXED NUMBERS, URG PG 24-30; SG PG 380-382

b. Estimate sums and differences.	UNIT 16, BRINGING IT ALL TOGETHER, URG PG 18-26; SG PG488-499 URG UNIT 5, LESSON 6-8; URG PG 71-94; SG PG 82-182 URG UNIT 7, LESSONS 1-5; URG PG 225-89; SG PG 222-229 URG UNIT 12, USING FRACTIONS, URG PG 16-56; SG PG 276-391
c. Judge the reasonableness of solutions.	URG UNIT 5, LESON 6, ADDING FRACTIONS WITH RECTANGLES, URG PG 71-79; SG PG 82, AND 171-176 URG UNIT 7, LESSONS 1-5; URG PG 225-89; SG PG 222-229 URG UNIT 9, LESSON 6, GRASS ACT, URG PG 70-84; SG PG 314
1.03 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	URG UNIT 2, LESSON 5-10, URG PG 112-175; SG PG 46-65 URG UNIT 4, DIVISION AND DATA, URG PG 27-125; SG PG 102-142; DAB PG 49-67 URG UNIT 9, LESSONS 1-6; URG PG 35-84; SG PG 294-314
COMPETENCY GOAL 2: The learner will recognize and use standard units of metric and customary measurement.	
Objectives	
2.01 Estimate the measure of an object in one system given the measure of that object in another system.	URG UNIT 5, LESSON 5, A DAY AT THE RACES, URG PG 58-70; SG PG 164-170 URG UNIT 5, LESSON 6, DISTANCE VS TIME, URG PG 87-110; SG PG 94-98
2.02 Identify, estimate, and measure the angles of plane figures using appropriate tools.	URG UNIT 6, LESSON 1, URG PG 22-33; SG PG 184-191; DAB PG 87-88 URG UNIT 15, LESSONS 1-6, URG PG 17-72; SG PG 454-485

COMPETENCY GOAL 3: The learner will understand and use properties and relationships of plane figures.	
Objectives	
3.01 Identify, define, describe, and accurately represent triangles, quadrilaterals, and other polygons.	URG UNIT 6, GEOMETRY, LESSONS 1-7; URG PG 22-99; SG PG 184-219; DAB PG 87-118 URG UNIT 15, LESSON 3-4; URG PG 32-44; SG PG 462-467
3.02 Make and test conjectures about polygons involving:	
a. Sum of the measures of interior angles.	URG UNIT 6, LESSONS 2-3; URG PG 34-54; SG PG 192-200
b. Lengths of sides and diagonals.	URG UNIT 6, LESSONS 2-3; URG PG 34-54; SG PG 192-200
c. Parallelism and perpendicularity of sides and diagonals.	
3.03 Classify plane figures according to types of symmetry (line, rotational).	URG UNIT 6, LESSON 6-7; URG PG 79-99; SG PG 210-217; DAB PG 93
3.04 Solve problems involving the properties of triangles, quadrilaterals, and other polygons.	URG UNIT 6, GEOMETRY, LESSONS 1-7; URG PG 22-99; SG PG 184-219; DAB PG 87-118
a. Sum of the measures of interior angles.	URG UNIT 6, LESSONS 2-3; URG PG 34-54; SG PG 192-200
b. Lengths of sides and diagonals.	URG UNIT 6, LESSON 4-5; URG PG 55-78; SG PG 201-209
c. Parallelism and perpendicularity of sides and diagonals.	URG UNIT 6, LESSON 5-6; URG PG 66-99; SG PG 205-209
COMPETENCY GOAL 4: The learner will understand and use graphs and data analysis.	
Objectives	
4.01 Collect, organize, analyze, and display data (including stem-and-leaf plots) to solve problems.	URG UNIT 1, LESSONS 1-6, URG PG 24-99; SG PG 2-24 URG UNIT 3, LESSON 6, DISTANCE VS TIME, URG PG 87-110; SG PG 94-98 URG UNIT 8, LESSON 6, URG PG 69-79; SG PG 276-279; DAB PG 143

4.02 Compare and contrast different representations of the same data; discuss the effectiveness of each representation.	URG UNIT 1, LESSONS 1-6, URG PG 24-99; SG PG 2-24 URG UNIT 8, LESSON 6, URG PG 69-79; SG PG 276-279; DAB PG 143
4.03 Solve problems with data from a single set or multiple sets of data using median, range, and mode.	URG UNIT 1, LESSONS 1-6, URG PG 24-99; SG PG 2-24 URG UNIT 3, LESSON 6, DISTANCE VS TIME, URG PG 87-110; SG PG 94-98
COMPETENCY GOAL 5: The learner will demonstrate an understanding of patterns, relationships, and elementary algebraic representation.	
Objectives	
5.01 Describe, extend, and generalize numeric and geometric patterns using tables, graphs, words, and symbols.	URG UNIT 2, LESSON 5, MULTIPLICATION, URG PG 112-131; SG PG 46-55 URG UNIT 6, LESSON 3, URG PG 46-54; SG pages 197-200 URG UNIT 11, LESSONS 1-8, URG PG 19-87; SG PG 348-373 UNIT 12, LESSON 5, USING PATTERNS TO MULTIPY FRACTIONS, URG PG 49-56; SG PG 390-391 URG UNIT 14, USING CIRCLES, URG PG 22-87; SG PG 426-451
5.02 Use algebraic expressions, patterns 5.03 , and one-step equations and inequalities to solve problems.	URG UNIT 13, LESSON 4, URG PG 58-76; SG PG 415-422 URG UNIT 15, LESSON 2, URG PG 26-31; SG PG 458-461 URG UNIT 11, LESSONS 1-8, URG PG 19-87; SG PG 348-373 URG UNIT 13, LESSON 2, VARIABLES IN PROPORTION, URG PG 30-42; SG GP 402-410
5.03 Identify, describe, and analyze situations with constant or varying rates of change.	URG UNIT 3, LESSON 6, DISTANCE VS TIME, URG PG 87-110; SG PG 94-98 URG UNIT 13, LESSON 2, VARIABLES IN PROPORTION, URG PG 30-42; SG GP 402-410