Elementary Traditional 2nd Grade

Math
Course Description and Curriculum Map

Telesis Preparatory Academy

Telesis Preparatory Academy

Contact Person(s): Sandra Breece Ed.D. - Administrator
Padmaja Chava – Academic / Testing Coordinator

CURRENT COURSE INFORMATION: COURSE ID: Envision Math – Common Core
CLASS LEVEL: Elementary – Traditional 2nd

COURSE RESOURCES: Text: Envision Math T.E.: 9780328673551 2012
CD ROM KIT
Hands-On Manipulatives Kits
Tools4Math
"Hatchin' Eggs" On-Line Fraction Game
MDIS – Supplementals

ON LINE RESOURCES at: www.pearsonsuccessnet.com

Course Description: This course is designed to expand students' previous understanding of number and operations in Base Ten. Primary focuses are on developing and demonstrating a solid understanding of: the properties of addition that connect to the basics of multiplication; becoming concrete with subtraction; using standard units of measure (time, money and length); and the relationship between whole multi-digit numbers with the beginning of study in properties and operations. Additionally, the study of geometric figures and their attributes for both plane and solids continues with a basic exploration of "fractioning" shapes and extending to an understanding of area, volume and congruency for later grades.

REQUIRED ASSESSMENTS & BENCHMARKING:

WEEK	WEEK / DATE	TESTING TYPE
WEEK 2		GALILEO – PRETEST
WEEK 3		STAR MATH
WEEK 9		GALILEO – BENCHMARK #1
WEEK 18		GALILEO - BENCHMARK #2
WEEK 21		STAR MATH
WEEK 26		GALILEO – BENCHMARK #3
WEEK 29		PARCC
WEEK 33		SAT 10
WEEK 37		STAR MATH
WEEK 38		GALILEO – POST TEST

Note: Benchmarking standards shall be determined by Administration / Data Analysis Team and be in compliance with state requirements. These tests do not take the place of regularly scheduled quizzes or chapter exams as suggested by curriculum. Dates/ weeks provided are the scheduled time(s) for required testing per Administration guidelines. Date(s) are subject to change.

LESSON DETAILS AND CURRICULUM MAPPING

NOTE: Common Core Alignment indicators are based on Arizona "recoding" effective October 2013. (see enclosed Arizona Common Core Placemat for detailed descriptors)

Optional Studies in italics

Upon completion of each topic, student will be able to demonstrate thorough assessment and content application of:

Objective	Common Core Alignments	Pacing	Date(s)
TOPIC 1: UNDERSTANDING ADDITION	OPERATIONS AND ALGEBRAIC THINKING Represent and solve problems involving addition and subtraction.	8 DAYS	
1-1 WRITING ADDITION NUMBER SENTENCES	2OAA.1, 2NBTB.5	1 day	
1-2 STORIES ABOUT JOINING	2OAA.1, 2NBTB.5	1 day	
1-3 WRITING SUBTRACTION NUMBER SENTENCES	2OAA.1, 2NBTB.5	1 day	
1-4 STORIES ABOUT SEPARATING	2OAA.1, 2NBTB.5	1 day	
K55 USING = AND ≠	1OAA.6, 2NBTA.4	1 day	
F36 EQUALITY AND INEQUALITY	2OAA.1, 2NBTA.4	½ day	
1-5 STORIES ABOUT COMPARING	2OAA.1, 2NBTB.5, 2NBTB.9	1 day	
1-6 CONNECTING ADDITION AND SUBTRACTION	2OAA.1, 2NBTB.5, 2.OAA.1, 2NBTB.5	1 day	
1-7 PROBLEM SOLVING – USE OBJECTS	2OAA.1, 2NBTB.5	1 day	
TOPIC 2: ADDITION STRATEGIES	OPERATIONS AND ALGEBRAIC THINKING Represent and solve problems involving addition and subtraction. Add and subtract within 20.	7 DAYS	
2-1 ADDING 0, 1, 2	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
2-2 DOUBLES	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
2-3 NEAR DOUBLES	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
2-4 ADDING IN ANY ORDER	2OAA.1, 2NBTB.5, 2NBTB.9	1 day	
2-5 ADDING THREE NUMBERS	2OAA.1, 2NBTBB.5, 2NBTB.9	1 day	
2-6 MAKING 10 TO ADD	2OAA.1, 2NBTB.5, 2NBTB.9	1 day	
2-7 Problem Solving – Draw a Picture and Write a Number Sentence	2OAA.1, 2NBTB.9	1 day	
TOPIC 3: SUBTRACTION STRATEGIES	OPERATIONS AND ALGEBRAIC THINKING Represent and solve problems involving addition and subtraction. Add and subtract within 20.	5 DAYS	
3-1 SUBTRACTING 0, 1, 2	2.OAA1, 2NBTB.5, 2NBTB.9	1 day	

3-2 THINKING ADDITION TO SUBTRACT DOUBLES	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
3-3 THINKING ADDITION TO 10 O SUBTRACT	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
3-4 THINKING ADDITION TO 18 TO SUBTRACT	2OAA.1, 2OAB.2, 2NBTB.5, 2NBTB.9	1 day	
3-5 MAKING 10 TO SUBTRACT	2OAB.2, 2OAA.1, 2NBTB.5	1 day	
3-6 Problem Solving – TWO-QUESTION PROBLEMS	2OAA.1	1 day	
TOPIC 4: REPEATED ADDITION *(optional studies included)*	OPERATIONS AND ALGEBRAIC THINKING Represent and solve problems involving Addition and Subtraction. Work with equal groups of objects to gain foundations for multiplication.	4 - 6 DAYS	
4-1 REPEATED ADDITION	2OAC.4	1 day	
4-2 BUILDING ARRAYS	2OAC.4	1 day	
4-3 PRACTICING REPEATED ADDITION	2OAC.4	1 day	
4-4 Problem Solving – Draw a Picture and Write a Number Sentence	2OAA.1, 2OAC.4	1 day	
B47 MULTIPLYING BY 2 AND 5 (time permitting)	*3OAA.1*	*1 day*	
B49 MULTIPLYING BY 1 OR 0 (time permitting)	*3OAA.1*	*½ day*	
B54 MULTIPLYING BY 10 (time permitting)	*3OAA.1*	*½ day*	
TOPIC 5: PLACE VALUE TO 100	OPERATIONS AND OPERATIONS IN BASE TEN Understand Place Value. Use place value understanding and properties of operations to add and subtract.	8 DAYS	
5-1 MODELS FOR TENS AND ONES	2NBTA.1.a, 2NBTA.1, 2NBTA.3	1 day	
5-2 READING AND WRITING NUMBERS	2NBTA.3, 2NBTA.1	1 day	
5-3 USING SYMBOLS TO COMPARE NUMBERS	2NBTA.4	1 day	
5-4 COUNTING TO 100	2NBTA.2	1 day	
K2 COUNTING BACKWARD	2NBTA.2	½ day	
K52 COUNTING BACKWARD FROM 100	2NBTA.2	½ day	
5-5 10 MORE OR 10 LESS	2NBTB.5, 2NBTB.6	1 day	
5-6 EVEN AND ODD NUMBERS	2OAC.3, 2NBTB.9	1 day	
5-7 Problem Solving – Use Data from a Chart	2NBTB.5, 20AA.1	1 day	
TOPIC 6: MENTAL ADDITION	NUMBER AND OPERATIONS IN BASE TEN Understand place value. Use place value understanding and properties of operations to add and subtract.	6 DAYS	

6-1 ADDING TENS	2NBTB.5, 2NBTC.8, 2NBTB.9	1 day	
6-2 ADDING ONES	2NBTB.5, 2NBTC.8, 2NBTB.9	1 day	
6-3 ADDING TENS AND ONES	2NBTB.5, 2NBTC.8, 2NBTB.9	1 day	
6-4 ADDING ON A HUNDRED CHART	2NBTB.5, 2NBTB.9	1 day	
6-5 ADDING MULTIPLES OF 10	2NBTB.5, 2OAA.1, 2NBTC.8, 2NBTB.9	1 day	
6-6 Problem Solving – Look for a Pattern	2NBTA.2	1 day	
TOPIC 7: MENTAL SUBTRACTION	NUMBER AND OPERATIONS IN BASE TEN Use place value understanding and properties of operations to add and subtract.	5 DAYS	
7-1 SUBTRACTING TENS	2NBTC.8, 2NBTB.5, 2NBTB.9	1 day	
7-2 FINDING PARTS OF 100	2NBTB.5, 2NBTB.9	1 day	
7-3 SUBTRACTING ON A HUNDRED CHART	2NBTB.5, 2NBTB.9	½ day	
7-4 SUBTRACTING MULTIPLES OF 10	2NBTB.5, 2OAA.1, 2NBTC.8, 2NBTB.9	1 day	
7-5 Problem Solving – Missing or Extra Information	2NBTB.5, 2NBTB.7	1 day	
TOPIC 8: ADDING TWO-DIGIT NUMBERS	NUMBER AND OPERATIONS IN BASE TEN Use place value understanding and properties of operations to add and subtract	9 DAYS	
8-1 REGROUPING 10 ONES FOR 1 TEN	2NBTB.5, 2NBTB.9	1 day	
8-2 MODELS TO ADD TWO- AND ONE- DIGIT NUMBERS	2NBTB.5, 2NBTB.9	1 day	
8-3 ADDING TWO- AND ONE-DIGIT NUMBERS	2NBTB.5, 2NBTB.9	1 day	
8-4 MODELS TO ADD TWO-DIGIT NUMBERS	2NBTB.5, 2NBTB.6, 2NBTB.9	1 day	
8-5 ADDING TWO DIGIT NUMBERS	2NBTB.5, 2NBTB.6, 2NBTB.9	1 day	
8-6 ADDING ON A NUMBER LINE	2MDB.6, 2NBTB.5, 2NBTB.6, 2NBTB.9	1 day	
8-7 ADDING MORE THAN TWO NUMBERS	2NBTB.6, 2NBTB.5, 2NBTB.9	1 day	
8-8 WAYS TO ADD	2NBTB.5, 2NBTB.6, 2NBTB.9	1 day	
K61 ESTIMATING SUMS UP TO 100	2OAB.2		
8-9 Problem Solving – Draw a Picture and Write a Number Sentence	2NBTB.5, 2OAA.1	1 day	
TOPIC 9: SUBTRACTING TWO-DIGIT NUMBERS	NUMBER AND OPERATIONS IN BASE TEN Use place value understanding and properties of operations to add and subtract.	9 DAYS	
9-1 REGROUPING 1 TEN FOR 10			

ONES	2NBTB.5, 2NBTB.9	1 day	
9-2 MODELS TO SUBTRACT TWO- AND ONE-DIGIT NUMBERS	2NBTB.5, 2NBTB.9	1 day	
9-3 SUBTRACTING TWO- AND ONE- DIGIT NUMBERS	2NBTB.5, 2NBTB.9	1 day	
9-4 MODELS TO SUBTRACT TWO-DIGIT NUNBERS	2NBTB.5, 2NBTB.9	1 day	
9-5 SUBTRACTING TWO-DIGIT NUMBERS	2NBTB.5, 2NBTB.9	1 day	
9-6 SUBTRACTING ON A NUMBER LINE	2.MDB.6, 2NBTB.5, 2NBTB.9, 2NBTB.6	1 day	
9-7 USING ADDITION TO CHECK SUBTRACTION	2NBTB.5, 2NBTB.9	1 day	
9-8 WAYS TO SUBTRACT	2NBTB.5, 2NBTB.6, 2NBTB.9	1 day	
9-9 Problem Solving – Two-Question Problems	2NBTB.5, 2OAA.1	1 day	
TOPIC 10: PLACE VALUE TO 1,000	NUMBER AND OPERATIONS IN BASE TEN Understand place value. Use place value understanding and properties of operations to add and subtract.	9 DAYS	
10-1 BUILDING 1,000	2NBTA.1.b, 2NBTA.1.a, 2NBTA.2	1 day	
10-2 COUNTING HUNDREDS, TENS, AND ONES	2NBTA.1, 2NBTA.1.b, 2NBTA.3	1 day	
10-3 READING AND WRITING NUMBERS TO 1,000	2NBTA.3, 2NBTA.1.a, 2NBTA.1.b	1 day	
10-4 CHANGING NUMBERS BY HUNDREDS AND TENS	2NBTC.8	1 day	
10-5 PATTERNS WITH NUMBERS ON HUNDREDS CHARTS	2NBTA.2, 2NBTC.8	1 day	
10-6 SKIP COUNTING BY 5, 10, 100 TO 1,000	2NBTA.2	1 day	
10-7 COMPARING NUMBERS	2NBTA.4		
10-8 ORDERING NUMBERS	2NBTA.4		
10-9 Problem Solving – Look for a Pattern	2NBTA.2, 2NBTA.4		
TOPIC 11: THREE-DIGIT ADDITIONA AND SUBTRACTION	NUMBER AND OPERATIONS IN BASE TEN Use place value understanding and properties of operations to add and subtract.	9 DAYS	
11-1 EXPLORING ADDING THREE-DIGIT NUMBERS	2NBTB.7, 2NBTC.8, 2NBTB.9	1 day	
11-2 MENTAL MATH	2NBTB.7, 2NBTC.8, 2NBTB.9	1 day	
11-3 MODELS FOR ADDING WITH THREE-DIGIT NUMBERS	2NBTB.7, 2NBTB.9	1 day	
11-4 ADDING THREE-DIGIT NUMBERS	2NBTB.7, 2NBTB.9	1 day	
11-5 EXPLORING SUBTRACTING THREE-DIGIT NUMBERS	2NBTB.7	1 day	

11-6 MENTAL MATH – WAYS TO FIND MISSING PARTS	2NBTB.7, 2NBTC.8, 2NBTB.9	1 day	
11-7 MODELS FOR SUBTRACTING WITH THREE-DIGIT NUMBERS	2NBTB.7, 2NBTB.9	1 day	
11-8 SUBTRACTING THREE-DIGIT NUMBERS	2NBTB.7, 2NBTB.9	1 day	
11-9 Problem Solving – Use Logical Reasoning	2NBTB.7	1 day	
TOPIC 12: GEOMETRY	GEOMETRY Reason with shapes and their attributes.	9 DAYS	
12-1 FLAT SURFACES, VERTICES, AND EDGES	2GA.1	1 day	
12-2 RELATING PLANE SHAPES TO SOLID FIGURES	2GA.1	1 day	
12-3 POLYGONS AND ANGELS	2GA.1	1 day	
12-4 MAKING NEW SHAPES	2GA.1	1 day	
12-5 CUTTING SHAPES APART	2GA.1	1 day	
D56 SYMMETRY	2GA.1	½ day	
12-6 DIVIDING RECTANGLES INTO EQUAL SQUARES	2GA.2	1 day	
12-7 WHOLE AND EQUAL PARTS	2GA.3	1 day	
12-8 Problem Solving – Use Reasoning	2GA.1	1 day	
TOPIC 13: COUNTING MONEY	MEASUREMENT AND DATA Work with time and money.	5 DAYS	
13-1 COINS	2MDC.8	1 day	
13-2 COUNTING COLLECTIONS OF COINS	2MDC.8	1 day	
13-3 WAYS TO SHOW THE SAME AMOUNT	2MDC.8	1 day	
13-4 ONE DOLLAR	2MDC.8	1 day	
13-5 Problem Solving – Make an Organized List	2MDC.8	1 day	
TOPIC 14: MONEY	MEASUREMENT AND DATA Work with time and money.	4 DAYS	
14-1 ADDING MONEY	2MDC.8, 2NBTB.5, 2NBTB.9	1 day	
14-2 SUBTRACTING MONEY	2MDC.8, 2NBTB.5, 2NBTB.9	1 day	
14-3 ESTIMATING SUMS AND DIFFERENCES	2MDC.8, 2NBTB.5, 2NBTB.9	1 day	
14-4 Problem Solving – Try, Check, and Revise	2MDC.8	1 day	
TOPIC 15: MEASURING LENGTH	MEASUREMENT AND DATA Measure and estimate lengths in standard units. Relate addition and subtraction to length.	13 DAYS	
15-1 EXPLORING LENGTH	2MDA.1	1 day	
15-2 INCHES	2MDA.1, 2MDA.3	1 day	

15-3 CENTIMETERS	2MDA.1, 2MDA.3	1 day	
15-4 INCHES, FEET, AND YARDS	2MDA.1, 2MDA.3	1 day	
15-5 CENTIMETERS AND METERS	2MDA.1, 2MDA.3	1 day	
15-6 MEASURING LENGTH	2MDA.2	1 day	
D28 EXPLORING CAPACITY	2MDA.1	½ day	
D29 CUPS, PINTS, AND QUARTS	2MDA.1	½ day	
D40 USING CUSTOMARY UNITS OF CAPACITY	2MDA.1, 2MDA.3	1 day	
K59 ESTIMATING AND MEASURING WEIGHT USING NON-STANDARD UNITS	2MDA.1	½ day	
D33 POUNDS AND OUNCES	2MDA.1, 2MDA.3	½ day	
K60 ESTIMATING AND MEASURING WEIGHT USING CUSTOMARY UNITS	2MDA.1	½ day	
D17 TEMPERATURE	2MDA.1	½ day	
15-7 ADDING AND SUBTRACTING IN MEASUREMENT	2MDB.5	1 day	
15-8 COMPARING LENGTHS	2MDA.4	1 day	
15-9 Problem Solving – Use Objects	2MDA.3, 2MDA.1, 2MDB.5	1 day	
TOPIC 16: TIME, GRAPHS AND DATA	MEASUREMENT AND DATA Work with time and money. Represent and interpret data.	6 DAYS	
16-1 TELLING TIME TO FIVE MINUTES	2MDC.7	1 day	
16-2 TELLING TIME BEFORE AND AFTER THE HOUR	2MDC.7	1 day	
D14 TELLING TIME	2MDC.7	½ day	
D10 EQUIVALENT TIMES	2MDC.7	½ day	
K18 ELAPSED CALENDAR TIME	2MDC.7	1 day	
16-3 ORGANZING DATA	2MDD.10	1 day	
16-4 GRAPHING LENGTHS	2MDD.9	1 day	
16-5 PICTOGRAPHS	2MDD.10	1 day	
16-6 Problem Solving – Use a Graph	2MDD.10		

Objectives and standards for design and implementing of this course are based on Arizona Common Core Standards of Mathematics for the traditional Second Grade level.

The applied Standards and Objectives of the course are listed in conceptual categories including: Operations and Algebraic Thinking; Number and Operations in Base Ten; Measurement and Data; and Geometry. Categories for objectives are based on such and listed as follows:

Operations and Algebraic Thinking
- Represent and solve problems involving addition and subtraction. (OAA)
- Add and subtract within 20. (OAB)
- Work with equal groups of objects to gain foundations for multiplication. (OAC)

Number and Operations in Base Ten
- Understand place value. (NBTA)
- Use place value understanding and properties of operations to add and subtract. (NBTB & NBTC)

Measurement and Data
- Measure and estimate lengths in standard units. (MDA)
- Relate addition and subtraction to length. (MDB)
- Work with money. (MDC)
- Represent and interpret data. (MDD)

Geometry
- Reason with shapes and their attributes. (GA)

Student objectives are also based on the demonstration of Core Mathematical Practices (MP) as follows:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

See Enclosed Arizona 2nd Grade Placemat for detailed standards.

Arizona's College and Career Ready Standards – Mathematics – 2nd Grade Standards Placemat

1. ***Extending understanding of base-ten notation***
   - Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).
2. ***Building fluency with addition and subtraction***
   - Students use their understanding of addition to develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.
3. ***Using standard units of measure***
   - Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.
4. ***Describing and analyzing shapes***
   - Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding attributes of two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Operations and Algebraic Thinking - Represent and solve problems involving addition and subtraction.

2.OA.A.1: Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. (Note: See Glossary, Table 1.)

Add and subtract within 20.

2.OA.B.2: Fluently add and subtract within 20 using mental strategies. (Note: See standard 1.OA.6 for a list of mental strategies). By end of Grade 2, know from memory all sums of two one-digit numbers.

Work with equal groups of objects to gain foundations for multiplication.

2.OA.C.3: Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

2.OA.C.4: Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten - Understand place value.

2.NBT.A.1: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:

a. 100 can be thought of as a bundle of ten tens — called a "hundred."

b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

2.NBT.A.2: Count within 1000; skip-count by 5s, 10s, and 100s.

2.NBT.A.3: Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.A.4: Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Use place value understanding and properties of operations to add and subtract.

2.NBT.B.5: Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2.NBT.B.6: Add up to four two-digit numbers using strategies based on place value and properties of operations.

2.NBT.B.7: Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

2.NBT.C.8: Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

2.NBT.B.9: Explain why addition and subtraction strategies work, using place value and the properties of operations. (Note: Explanations may be supported by drawings or objects.)

Measurement and Data - Measure and estimate lengths in standard units.

2.MD.A.1: Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.A.2: Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.A.3: Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.A.4: Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Relate addition and subtraction to length.

2.MD.B.5: Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

2.MD.B.6: Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Work with time and money.

2.MD.C.7: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

2.MD.C.8: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

Represent and interpret data.

2.MD.D.9: Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

2.MD.D.10: Draw a picture graph and a bar graph (with single- unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph. (Note:See Glossary, Table 1.)

Geometry - Reason with shapes and their attributes.

2.G.A.1: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. (Note: Sizes are compared directly or visually, not compared by measuring.) Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2.G.A.2: Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.A.3: Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

TELESIS CENTER FOR LEARNING
MATH CORE CHECKLIST & VERTICAL ALIGNMENT REFERENCE

COUNTING & CARDINALITY STANDARDS (KINDER ONLY)

STANDARD	K	N/A	N/A
CCA		N/A	N/A
CCA.1	6-1, 6-3, 6-4, 6-5, 6-6	N/A	N/A
CCA.2	4-8, 4-9, 5-5, 6-1, 6-3, 6-6	N/A	N/A
CCA.3	1-3, 1-6, 2-4, 2-5, 3-2, 3-4, 3-6, 5-1, 5-2, 5-3, 5-4	N/A	N/A
CCB		N/A	N/A
CCB.4	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 2-5, 2-7, 2-8, 2-9, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 4-8, 5-1, 5-2, 5-3, 5-4, 6-1, 6-3	N/A	N/A
CCB.5	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 2-5, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 6-2	N/A	N/A
CCC		N/A	N/A
CCC.6	2-1, 2-2, 2-3, 2-6, 2-9, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7	N/A	N/A
CCC.7	4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 4-10	N/A	N/A

KCCA- KNOW NUMBER NAMES AND THE COUNT SEQUENCE

KCCB – COUNT TO TELL THE NUMBER OF OBJECTS

KCC – COMPARE NUMBERS

N/A – NOT APPLICABLE

TELESIS CENTER FOR LEARNING
MATH CORE CHECKLIST & VERTICAL ALIGNMENT REFERENCE

OPERATIONS AND ALGEBRAIC THINKING

STANDARD	K	1ST	2ND
OAA			
OAA.1	4-4, 4-5, 4-6, 4-7, 7-1, 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7, 8-8, 9-9	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-8, 2-4, 2-5, 2-6, 2-7, 2-8, 2-11, 4-6, 4-10, 5-1, 5-2, 5-3, 5-4, 6-1, 6-2, 6-7,	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 4-4, 5-7, 6-5, 7-4, 8-9, 9-9, B47 (3RD), B49 (3RD), B54 (3RD),
OAA.2	7-1, 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7, 8-8	5-8, 5-9,	N/A
OAA.3	9-1, 9-2, 9-3, 9-4, 9-5, 9-6, 9-8	N/A	N/A
OAA.4	9-7	N/A	N/A
OAA.5	7-1, 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7	N/A	N/A
OAA.6	N/A	N/A	N/A
OAB			
OAB.2	N/A	N/A	K61, 2-1, 2-2, 2-3, 3-2, 3-3, 3-4, 3-5,
OAB.3	N/A	1-7, 4-1, 5-5, 5-6, 5-7, 5-8, 5-9,	N/A
OAB.4	N/A	2-1, 2-2, 2-3, 2-4, 2-5, 2-7, 2-8, 3-4, 4-7, 4-8, 4-9, 6-3, 6-4, 6-5, 6-6,	N/A
OAC			
OAC.3	N/A	N/A	5-6,
OAC.4	N/A	N/A	4-1, 4-2, 4-3, 4-4,
OAC.5	N/A	3-1, 3-2, 4-1, 4-6,	N/A
OAC.6	N/A	2-1, 2-2, 2-3, 2-4, 2-6, 2-7, 2-8, 2-9, 2-11, 3-3, 3-4, 3-5, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-8, 4-9, 4-10, 5-1, 5-2, 5-3,	N/A

		5-5, 5-6, 5-7, 6-1, 6-2, 6-3, 6-4, 6-5, 6-6,	
OAD			
OAD.7	N/A	1-5, 1-8, 2-10, 4-1, 5-2, 5-3, 6-1, 6-6,	N/A
OAD.8	N/A	1-5, 2-6, 2-10, 3-4, 4-2, 4-3, 4-4, 4-5, 4-7, 4-8, 4-9, 5-1, 5-2, 5-3, 5-5, 5-6, 5-7, 6-1, 6-2, 6-4, 6-6,	N/A

K OAA - UNDERSTAND ADDITION AS PUTTING TOGETHER AND ADDING TO, AND UNDERSTAND SUBTRACTION AS TAKING APART AND TAKING FROM
1&2 OAA – REPRESENT AND SOLVE PROBLEMS INVOLVING ADDITION & SUBTRACTION

K OABK – UNDERSTAND AND APPLY PROPERTIES OF OPERATIONS AND THE RELATIONSHIP BETWEEN ADDITION AND SUBTRACTION
1 OAB – UNDERSTAND AND APPLY PROPERTIES OF OPERATIONS AND THE RELATIONSHIP BETWEEN ADDITION AND SUBTRACTION
2 OAB – ADD AND SUBTRACT WITHIN 20

K OAC – ADD AND SUBTRACT
1 OAC – ADD AND SUBTRACT WITHIN 20
2 OAC – WORK WITH EQUAL GROUPS OF OBJECTS TO GAIN FOUNDATIONS FOR MULTIPLICATION

K OAD – WORK WITH ADDITION AND SUBTRACTION EQUATIONS
1 OAD – WORK WITH ADDITION AND SUBTRACTION EQUATIONS

N/A – NOT APPLICABLE

TELESIS CENTER FOR LEARNING
MATH CORE CHECKLIST & VERTICAL ALIGNMENT REFERENCE

NUMBER AND OPERATIONS IN BASE TEN

STANDARD	K	1ST	2ND
NBT			
NBT.1	10-1, 10-2, 10-3, 10-4, 11-1, 11-2, 11-3, 11-4, 11-5	7-2, 7-4, 7-5, E9, 7-6, 9-5,	a) 5-1, 10-1, 10-3, b) 10-1, 10-2, 10-3, 5-2, 10-2,
NBT.2	N/A	a) 7-1, 7-5, 8-1, , 8-3, 8-4, 8-5, 8-6, b) 7-1, c) 7-3, 8-2, 8-3, 8-5, 8-6, 7-2, K52, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 9-2,	5-4, 6-6, 10-1, 10-5, 10-6, 10-9,
NBT.3	N/A	K55, 9-3, 9-4,	K55, F36, 5-1, 5-2, 10-2, 10-3,
NBT.4	N/A	9-1, 9-2, 10-1, 10-2, 10-3, 10-4, 10-5, 10-6,	5-3, 10-7, 10-8, 10-9,
NBT.5	N/A	9-1, 10-2, 10-3, 10-4, 11-2, 11-3, 11-4,	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 3-1, 3-2, 3-3, 3-4, 3-5, 5-5, 5-7, 6-1, 6-2, 6-3, 6-4, 6-5, 7-1, 7-2, 7-3, 7-4, 7-5, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7, 8-8, 8-9, 9-1, 9-2, 9-3, 9-4, 9-5, 9-6, 9-7, 9-8, 9-9, 14-1, 14-2, 14-3,
NBT.6	N/A	11-1, 11-2, 11-3, 11-4, 11-5, 11-6,	5-5, 8-4, 8-5, 8-6, 8-7, 8-8, 9-6, 9-8,
NBT.7	N/A	N/A	7-5, 11-1, 11-2, 11-3, 11-4, 11-5, 11-6, 11-7, 11-8, 11-9,
NBT.8	N/A	N/A	6-1, 6-2, 6-3, 6-5, 7-1, 7-4, 10-4, 10-5, 11-1, 11-2, 11-6,

NBT.9	N/A	N/A	1-5, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 3-1, 3-2, 3-3, 3-4, 5-6, 6-1, 6-2, 6-3, 6-4, 6-5, 7-1, 7-2, 7-3, 7-4, 8-1, 8-2, 8-3, 8-4, 8-5, 8-6, 8-7, 8-8, 9-1, 9-2, 9-3, 9-4, 9-5, 9-6, 9-7, 9-8, 11-1, 11-2, 11-3, 11-4, 11-6, 11-7, 11-8, 14-1, 14-2, 14-3,

K NBT – WORK WITH NUMBES 11-19 TO GAIN FOUNDATION FOR PLACE VALUE / EXTEND COUNTING SEQUENCE

1 NBT – EXTEND THE COUNTING SEQUENCE / UNDERSTAND PLACE VALUE AND PROPERTIES OF ADD/SUB

2 NBT – UNDERSTAND PLACE VALUE AND PROPERTIES

N/A – NOT APPLICABLE

TELESIS CENTER FOR LEARNING
MATH CORE CHECKLIST & VERTICAL ALIGNMENT REFERENCE

MEASUREMENT AND DATA

STANDARD	K	1ST	2ND
MDA			
MDA.1	12-1, 12-2, 12-3, 12-4, 12-5, 12-6, 12-7, 12-8	12-1, 12-2,	D28, D29, D40, 15-1, 15-2, 15-3, 15-4, 15-5, 15-9, K59, D33,
MDA.2	12-2, 12-3, 12-4, 12-5, 12-6, 12-7, 12-8	12-3, 12-4, 12-5, 12-6, SL8,	15-6,
MDA.3	N/A	N/A	15-2, 15-3, 15-4, 15-5, 15-9, D33
MDA.4	N/A	N/A	15-8,
MDB			
MDB.3	9-9, 13-1, 13-2, 13-3, 13-4, 13-5, 13-6, 13-7	13-1, 13-2, 13-3, 13-4,	N/A
MDB.5	N/A	N/A	15-7, 15-9,
MDB.6	N/A	N/A	8-6, 9-6,
MDC			
MDC.4	N/A	14-1, 14-2, 14-3, 14-4, 14-5, 14-6, 14-7,	N/A
MDC.7	N/A	N/A	D10, K18, 16-1, 16-2,
MDC.8	N/A	N/A	13-1, 13-2, 13-3, 13-4, 13-5, 14-1, 14-2, 14-3, 14-4,
MDD			
MDD.9	N/A	N/A	16-4,
MDD.10	N/A	N/A	16-3, 16-5, 16-6

N/A – NOT APPLICABLE

K MDA – DESCRIBE & COMPARE MEASURABLE ATTRIBUTES
1 MDA – MEASURE LENGTHS INDIRECTLY AND BY ITERATING LENGTH UNITS
2 MDA – MEASURE AND ESTIMATE LENGTHS IN STANDARD UNITS

K MDB – CLASSIFY OBJECTS AND COUNT THE NUMBER OF OBJECTS IN EACH CATEGORY
1 MDB – TELL AND WRITE TIME
2 MDB – RELATE ADDITION AND SUBTRACTION TO LENGTH

1 MDC – REPRESENT AND INTERPRET DATA
2 MDC – WORK WITH TIME AND MONEY

2 MDD – REPRESENT AND INTERPRET DATA

TELESIS CENTER FOR LEARNING
MATH CORE CHECKLIST & VERTICAL ALIGNMENT REFERENCE

GEOMETRY

STANDARD	K	1ST	2ND
GA			
GA.1	13-5, 15-1, 15-2, 15-3, 15-4, 15-5	15-1, 15-3, 15-6, 15-7, 15-8, 15-10,	D56, 12-1, 12-2, 12-3, 12-4, 12-5, 12-8
GA.2	14-1, 14-2, 14-3, 14-4, 14-5, 14-6, 14-7, 14-8, 16-1, 16-3, 16-4	15-2, 15-4, 15-5, 15-9,	12-6,
GA.3	14-6, 14-7, 16-5	16-1, 16-2, 16-3, 16-4,	12-7,
GB			
GB.4	16-1, 16-2, 16-3, 16-5	N/A	N/A
GB.5	16-4	N/A	N/A
GB.6	16-2	N/A	N/A

K GA – IDENTIFY AND DESCRIBE CHAPES (SQUARES, CIRCLES, TRIANGLES, RECTANGLES, HEXAGONS, CUBES, CONES, CYLINDERS AND SPHERES)

1&2 GA – REASON WITH SHAPES AND THEIR ATTRIBUTES

2 GBK – ANALYZE, COMPARE, CREATE AND COMPOSE SHAPES

N/A – NOT APPLICABLE