Ohio Mathematics - Extended Learning Standards

Grade 1

Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.

1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. See Table 1, page 95. 1.OA.1

- a Solve subtraction word problems within 20, involving situations where one is "taking from," or "taking apart," using models or objects. 1.OA.1.A
- b Solve addition problems within 20, involving situations where one is "adding to," or "putting together" using models or objects. 1.OA.1.B
- c Select and use numbers and operation symbols presented in a given word problem to generate a simple equation with a sum of 20 or less. 1.OA.1.C
- d Solve subtraction word problems within 10, involving situations where one is "taking from," or "taking apart," using models or objects. 1.OA.1.D
- e Solve addition word problems within 10, involving situations where one is "adding to," or "putting together" using models or objects. 1.OA.1.E
- f Select and use numbers and operation symbols presented in a given word problem to generate a simple equation with a sum of 10 or less. 1.OA.1.F
- g Manipulate a model or objects, as described in a story problem, to identify the unknown part of the equation. 1.OA.1.G
- h Using an equation template, identify the part of the equation that is unknown as described in a story problem. 1.OA.1.H
- i Using an equation template, identify the operation (+ or -) as described in a story problem. 1.OA.1.I
- j Using an equation template, identify the given numbers as described in a story problem. 1.OA.1.J
- k Identify within a passage of text the given numbers, the operation and the problem to solve (the unknown). 1.OA.1.K
- l Understand that a passage of text can contain a math problem. 1.OA.1.L
- m Demonstrate addition and subtraction using visual and/or tactile models and simple equations (i.e. drawings, tally marks, touchpoints, objects, counters, etc.) 1.OA.1.M
- n Match subtract (-) to terms such as: take away, take apart, minus, subtract 1.OA.1.N
- o Match add (+) to terms such as: count on, plus, put together, group. 1.OA.1.O
- p Describe or demonstrate - as taking away using multi-sensory models. 1.OA.1.P
- q Describe or demonstrate + as putting together using multi-sensory models. 1.OA.1.Q
- r Follow along and mimic "putting together" and "taking apart" as demonstrated using multi-sensory models to represent addition and subtraction. 1.OA.1.R

s Engage in demonstrations using multi-sensory models to represent addition and subtraction equations. 1.OA.1.S

t Engage in visual and/or tactile models (i.e. drawings, tally marks, touchpoints, objects, counters, etc.) representing addition and subtraction equations. 1.OA.1.T

2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.) 1.OA.2

a Independently add three whole numbers given in a word problem (written or oral), up to a sum of 20 or less, with or without models or objects. 1.OA.2.A

b Add three whole numbers to a sum of 20 or less. 1.OA.2.B

c Solve addition problems within 20, involving situations where one is “adding to,” or “putting together” using models or objects. 1.OA.2.C

d Select and use numbers and operation symbols presented in a given word problem to generate an addition equation using 3 whole numbers with a sum of 20 or less. 1.OA.2.D

e Solve addition word problems within 10, involving situations where one is “adding to,” or “putting together” using models or objects. 1.OA.2.E

f Select and use numbers and operation symbols presented in a given word problem to generate an addition equation using 3 whole numbers with a sum of 10 or less. 1.OA.2.F

g Manipulate a model or objects, as described in a story problem, to identify the unknown part of the equation. 1.OA.2.G

h Using an equation template, identify the part of the equation that is unknown as described in a story problem. 1.OA.2.H

i Using an equation template, identify the operation (+) as described in a story problem. 1.OA.2.I

j Using an equation template, identify the given numbers as described in a story problem. 1.OA.2.J

k Identify within a passage of text the given numbers, the operation and the problem to solve (the unknown). 1.OA.2.K

l Understand that a passage of text can contain a math problem. 1.OA.2.L

m Demonstrate addition using visual and/or tactile models and simple equations (i.e. drawings, tally marks, touchpoints, objects, counters, etc.) 1.OA.2.M

n Match add (+) to terms such as: count on, plus, put together, group. 1.OA.2.N

o Describe or demonstrate + as putting together using multi-sensory models. 1.OA.2.O

p Follow along and mimic “putting together” as demonstrated using multi-sensory models to represent addition problems. 1.OA.2.P

q Engage in demonstrations using multi-sensory models to represent addition and subtraction equations. 1.OA.2.Q

r Engage in visual and/or tactile models (i.e. drawings, tally marks, touchpoints, objects, counters, etc.) representing addition and subtraction equations. 1.OA.2.R

Understand and apply properties of operations and the relationship between addition and subtraction.

3 Apply properties of operations as strategies to add and subtract. For example, if 8 + 3 = 11 is known, then 3 + 8 = 11 is also known (Commutative Property of Addition); to add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12 (Associative Property of Addition). Students need not use formal terms for these properties. 1.OA.3

a Apply knowledge of addition facts to solve addition problems involving 3 single digit numbers. (i.e. 5+3+5=? by adding 5+5=10 as a known fact, the problem then becomes 10+3=?) 1.OA.3.A

b When given a 3 number addition problem, rewrite the problem as a two number problem by including the answer to the known addition fact. (i.e. 2+4+8= becomes 6+8=) 1.OA.3.B

c When given a 3 number addition problem, identify two numbers that when added are a know fact. 1.OA.3.C

d Solve inverse pairs of math facts with increased increments of automaticity from an individual baseline time. 1.OA.3.D

e Match fact pairs showing inverse subtraction relationships. (i.e. 7-3=4 and 7-4=3) 1.OA.3.E

f Match fact pairs showing inverse addition relationships. 1.OA.3.F

g Engage with pairs of reversed addition facts (i.e. 2+3=5 and 3+2=5). 1.OA.3.G

h Engage with numbers presented in equation format. 1.OA.3.H

4 Understand subtraction as an unknownaddend problem. For example, subtract 10 − 8 by finding the number that makes 10 when added to 8. 1.OA.4

a Using the relationship between addends, identify the missing number in two facts. (i.e. if 4+5=9 then 9-?=5) 1.OA.4.A

b Identify that a subtraction problem such as 10-8=2 and the addition problem such as 8+2=10 are related by the same set of numbers. 1.OA.4.B

c Identify = symbol. 1.OA.4.C

d Identify + symbol. 1.OA.4.D

e Identify subtraction symbol. 1.OA.4.E

f Engage with subtraction facts. 1.OA.4.F

g Engage with numbers presented in equations. 1.OA.4.G

Add and subtract within 20.

5 Relate counting to addition and subtraction, e.g., by counting on 2 to add 2. 1.OA.5

- a Independently count backward to subtract a number from a given starting place on a number line. 1.OA.5.A
- b Independently count on to add a number to a given starting place on a number line. 1.OA.5.B
- c Count backward, using a visual model, from a given number (20 or lower) to represent subtraction. 1.OA.5.C
- d Use a number line to count backward from 20-0. 1.OA.5.D
- e Use a number line to count backward from 10-0. 1.OA.5.E
- f Demonstrate/identify which way to move on the number line to subtract (count backward). 1.OA.5.F
- g Count on from a given number to represent addition up to 20. 1.OA.5.G
- h Demonstrate/identify which way to move on the number line to add (count on). 1.OA.5.H
- i Match subtract (-) to the terms count backward. 1.OA.5.I
- j Match addition (+) to the terms count on. 1.OA.5.J
- k Count from memory from 0-20. 1.OA.5.K
- l Count from memory from 0-10. 1.OA.5.L
- m Use a number line to count from 0-5, 0-10, 0-15, 0--20. 1.OA.5.M
- n Identify numbers on a number line. 1.OA.5.N
- o Engage with numbers presented on a number line. 1.OA.5.O

6 Add and subtract within 20, demonstrating fluencyG with various strategies for addition and subtraction within 10. Strategies may include counting on; making ten, e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14; decomposing a number leading to a ten, e.g., 13 − 4 = 13 − 3 − 1 = 10 − 1 = 9; using the relationship between addition and subtraction, e.g., knowing that 8 + 4 = 12, one knows 12 − 8 = 4; and creating equivalent but easier or known sums, e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13. 1.OA.6

- a Solve subtraction math facts within 20 with increased increments of automaticity from an individual baseline time. 1.OA.6.A
- b Solve addition math facts within 20 with increased increments of automaticity from an individual baseline time. 1.OA.6.B
- c AND/OR 1.OA.6.C
- d Use the relationship between addition and subtraction to solve math facts with increased increments of automaticity from an individual baseline time. (i.e. if 4+3=7 then 7-3=4) 1.OA.6.D
- e Use inverse pairs of math facts to increased increments of automaticity from an individual baseline time. (i.e. use 4+5=9 to answer 5+4=?) 1.OA.6.E

f Use counting on and counting backward to increased increments of automaticity from an individual baseline time. 1.OA.6.F

g Use decomposing numbers to solve addition and subtraction problems with increased increments of automaticity from an individual baseline time (i.e. 18-5=? Use: (10+5+3)-5= 13). 1.OA.6.G

h Use known sums to solve addition and subtraction problems with increased increments of automaticity from an individual baseline time.(i.e. If 5+5 is known then use 5+5+2 to solve 5+7=) 1.OA.6.H

i Identify = symbol. 1.OA.6.I

j Identify + symbol. 1.OA.6.J

k Identify subtraction symbol. 1.OA.6.K

l Engage with subtraction facts. 1.OA.6.L

m Engage with numbers presented in equations. 1.OA.6.M

Work with addition and subtraction equations.

7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6; 7 = 8 – 1; 5 + 2 = 2 + 5; 4 + 1 = 5 + 2. 1.OA.7

- a Determine whether equations involving addition and subtraction within 20 are true or false (e.g., 2 + 3 = 4 + 1). 1.OA.7.A
- b Solve two simple equations on either side of an equal sign to determine if they are or are not equal. (e.g., 2 + 3 = 4 + 1 is 5=5 and is equal). 1.OA.7.B
- c Determine whether an equality statement is true or false using objects and/or numerals. 1.OA.7.C
- d Determine whether one set of numbers is equal to another set of numbers. 1.OA.7.D
- e Determine whether one set of objects is equal to another set of objects. 1.OA.7.E
- f Identify equal sign to mean the same or equal to. 1.OA.7.F
- g Identify addition sign to mean putting together. 1.OA.7.G
- h Identify subtraction sign to mean take away. 1.OA.7.H
- i Identify an equation as a numbers sentence containing symbols, including the = sign, that represents a mathematical problem. 1.OA.7.I
- j Engage with activities involving comparisons. 1.OA.7.J
- k Engage with visual or tactile representations of the = sign. 1.OA.7.K
- l Engage with numbers presented in equations. 1.OA.7.L

8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations: 8 + = 11; 5 = – 3; 6 + 6 =. 1.OA.8

- a Determine the unknown number that makes a subtraction equation true up to a sum of 20. 1.OA.8.A
- b Determine the unknown number that makes an addition equation true up to a sum of 20. 1.OA.8.B
- c Determine the unknown number that makes a subtraction equation true up to a sum of 10. 1.OA.8.C
- d Determine the unknown number that makes an addition equation true up to a sum of 10. 1.OA.8.D
- e Determine the unknown sum that makes an subtraction equation true. 1.OA.8.E
- f Determine the unknown sum that makes an addition equation true. 1.OA.8.F
- g Identify/locate the space representing the unknown number in a given equation. 1.OA.8.G
- h Identify that unknown numbers can be in different types of equations (+ or -) 1.OA.8.H

i Identify that the unknown number can be located in several areas within an equation (i.e. 2+3=? or ?+3=5 or 2+?=5) 1.OA.8.I

j Identify the blank line, question mark or open box as a placeholder for an unknown number. 1.OA.8.J

k Engage with equations containing numbers and blank spaces for unknown numbers. 1.OA.8.K

l Engage with whole numbers. 1.OA.8.L

Number and Operations Base Ten

Extend the counting sequence.

1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral. 1.NBT.1

a Write/identify numbers up to 120. 1.NBT.1.A

b Count on from any number to 120. 1.NBT.1.B

c Count by 10's to 120 starting at any multiple of ten. 1.NBT.1.C

d Use visual/tactile models representing groups of ten to count up to 120. 1.NBT.1.D

e Identify models that represent the number 10. (i.e. ten frame, base ten rod, tally marks, etc. 1.NBT.1.E

f Match a number of objects with a written number. 1.NBT.1.F

g Use 1:1 correspondence to count objects, or models of objects, representing a two-digit number up to 50. 1.NBT.1.G

h Identify/read given numbers up to 120. 1.NBT.1.H

i Count by 1's to 100. 1.NBT.1.I

j Participate in counting activities. 1.NBT.1.J

k Engage with counting tools. 1.NBT.1.K

l Engage with objects to be counted. 1.NBT.1.L

Understand place value.

2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a “ten;” the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; and the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). 1.NBT.2

- a Identify multiples of ten as being two, three, four, etc. groups of ten. 1.NBT.2.A
- b Use ten frames to represent groups containing ten ones that can be counted by tens. 1.NBT.2.B
- c Compose a model representing a two digit number using groups of ten and ones. 1.NBT.2.C
- d Compose a model representing a one digit number using single objects or models. 1.NBT.2.D
- e Identify models that represent groups of 10. (i.e. ten frame, base ten rod, tally marks, etc. 1.NBT.2.E
- f Identify that two-digit numbers contain groups of tens and ones. 1.NBT.2.F
- g Engage with two-digit numbers. 1.NBT.2.G
- h Engage with number models representing ten. 1.NBT.2.H
- i Engage with the number ten. 1.NBT.2.I
- j Engage with numbers 1-9. 1.NBT.2.J

3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. 1.NBT.3

- a Compare 2 two-digit numbers using the symbols >, =, and <. 1.NBT.3.A
- b Compare quantities within two groups of objects up to 10 using the vocabulary “more than,” “less than” or the “same as.” 1.NBT.3.B
- c Compare two objects and identify as longer, shorter, taller or same length. 1.NBT.3.C
- d Count two groups of objects and label each group with the sum. 1.NBT.3.D
- e Place two groups of objects side-by-side. 1.NBT.3.E
- f Match the symbol < with less than. 1.NBT.3.F
- g Match the symbol > with greater than or more than. 1.NBT.3.G
- h Match the symbol = with same as or equal. 1.NBT.3.H
- i Actively engage with the symbols >, =, and <. 1.NBT.3.I
- j Actively engage with two digit numbers or objects representing two digit numbers. 1.NBT.3.J

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

4 Add within 100, including adding a two-digit number and a one-digit number and adding a twodigit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/ or the relationship between addition and subtraction; record the strategy with a written numerical method (drawings and, when appropriate, equations) and explain the reasoning used. Understand that when adding two-digit numbers, tens are added to tens; ones are added to ones; and sometimes it is necessary to compose a ten. 1.NBT.4

- a Describe why a specific strategy was selected to add 2 two-digit numbers. 1.NBT.4.A
- b Identify when a strategy is used to add 2 two-digit numbers and name the strategy selected. 1.NBT.4.B
- c Use a strategies such as place value, relationship between addition and subtraction, use of decomposing numbers into tens, etc. to add 2 two-digit numbers with a sum of 99 or less. 1.NBT.4.C
- d Use a strategies such as place value, relationship between addition and subtraction, use of decomposing numbers into tens, etc. to add a two-digit number with a one-digit number to a sum of 99 or less. 1.NBT.4.D
- e Use a visual/tactile model to add/put together a two-digit number with a multiple of ten to a sum of 99 or less. 1.NBT.4.E
- f Describe/outline the order of operations used when adding 2 two-digit numbers. (add the ones to the ones then write the sum below the ones column and then add the tens to the tens and write that sum below the tens column. 1.NBT.4.F
- g Write/organize an addition problem using place value alignment. (i.e. 48 +10 1.NBT.4.G
- h Identify a simple number sentence involving addition. (81+2=) 1.NBT.4.H
- i Solve addition problems within 50, involving “adding to,” and “putting together” using models or objects. 1.NBT.4.I
- j Describe or demonstrate + as putting together. 1.NBT.4.J
- k Identify the meaning of the + sign (can use terms such as: add, addition, plus, put together, combine) 1.NBT.4.K
- l Engage with the sign for +. 1.NBT.4.L
- m Engage with one and two-digit numbers. 1.NBT.4.M

5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. 1.NBT.5

- a Describe the mental process used to subtract ten from a given number to get an answer. 1.NBT.5.A
- b Describe the mental process used to add ten to a given number to get an answer. 1.NBT.5.B

c Mentally subtract 10 from a given number up to 100 and state the number aloud. 1.NBT.5.C

d Mentally add 10 to a given number up to 100 and state the number aloud. 1.NBT.5.D

e Subtract ten objects from a given number by counting back using 1:1 correspondence and a number line as needed. 1.NBT.5.E

f Add ten objects to a given number and count up using 1:1 correspondence. 1.NBT.5.F

g Count backwards by ten from 100-10. 1.NBT.5.G

h Point to and count groups of objects by ten up to 100. 1.NBT.5.H

i Group objects by 10 up to 100. 1.NBT.5.I

j Engage with a group of 10 objects representing the number ten. 1.NBT.5.J

6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), 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 and explain the reasoning used. 1.NBT.6

a Describe the mental process used to subtract ten from a given number to get an answer.(i.e. place value, relationship between + and -, concrete models, etc.) 1.NBT.6.A

b Mentally subtract 10 from a given number between 10- 90 and state the number aloud. 1.NBT.6.B

c Subtract ten objects from a given number by counting back using 1:1 correspondence and a number line as needed. 1.NBT.6.C

d Subtract ten objects by placing them on a number line from a given number and counting backward using 1:1 correspondence. 1.NBT.6.D

e Count backwards by ten from 90-10. 1.NBT.6.E

f Point to and count groups of objects by ten up to 90. 1.NBT.6.F

g Group objects by 10 up to 90. 1.NBT.6.G

h Engage with a group of 10 objects representing the number ten. 1.NBT.6.H

Measurement and Data

Measure lengths indirectly and by iterating length units.

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object. 1.MD.1
   - a. Compare the measurements of two objects by discussing lengths. 1.MD.1.A
   - b. Measure two objects and record lengths of each. 1.MD.1.B
   - c. Measure an object with another object that is not typically used to measure length. 1.MD.1.C
   - d. Measure an object with a standard tool used to measure length. 1.MD.1.D
   - e. Select an object or measuring tool that can be used to measure length. 1.MD.1.E
   - f. Select two objects to compare by length. 1.MD.1.F
   - g. Place 3 objects in order from shortest to longest or longest to shortest. 1.MD.1.G
   - h. Select 3 objects with varied lengths. 1.MD.1.H
   - i. Engage with measuring tools used to determine length. 1.MD.1.I
2. Express the length of an object as a whole number of length units by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of samesize length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps. 1.MD.2
   - a. Express the length of an object as a whole number 1.MD.2.A
   - b. Measure the length of an object with multiple objects of the same size and record the length by object size. (i.e. measure a pencil using pennies; this pencil is 8 pennies long) 1.MD.2.B
   - c. Line up measuring objects end-to-end to measure another larger object. 1.MD.2.C
   - d. Select a set of non-traditional measuring tools to determine the length of a larger object. 1.MD.2.D
   - e. Select an object to measure. 1.MD.2.E
   - f. Engage with non-traditional measuring tools used to determine length. 1.MD.2.F

Work with time and money.

3 Work with time and money. a. Tell and write time in hours and half-hours using analog and digital clocks. b. Identify pennies and dimes by name and value. 1.MD.3

- a Write time to the half-hour given the time verbally. 1.MD.3.A
- b Read time to the half-hour on a digital clock. 1.MD.3.B
- c Identify the hour and :30/half-hour display on a digital clock. 1.MD.3.C
- d Tell time to the nearest half-hour on digital and analog clock by stating the full time. 1.MD.3.D
- e Identify the number the minute hand is pointing to in the :30/half-hour position. 1.MD.3.E
- f Identify the number the hour hand is pointing to on an analog clock. 1.MD.3.F
- g Write time to the hour given the time verbally. 1.MD.3.G
- h Read time to the hour on a digital clock. 1.MD.3.H
- i Identify the hour and o'clock display on a digital clock. 1.MD.3.I
- j Tell time to the nearest hour on digital and analog clock by stating both the hour and o'clock. 1.MD.3.J
- k Identify the number the minute hand is pointing to in the o'clock position. 1.MD.3.K
- l Identify the number the hour hand is pointing to in any of the o'clock positions. 1.MD.3.L
- m Identify the long minute hand. 1.MD.3.M
- n Identify the short hour hand. 1.MD.3.N
- o Identify the hands on the face of the clock. 1.MD.3.O
- p Identify the numbers on the face of the clock. 1.MD.3.P
- q Engage with analog and/or digital clock. 1.MD.3.Q
- r Sort coins by grouping pennies and dimes. 1.MD.3.R
- s Identify the value of a dime. 1.MD.3.S
- t Identify the value of a penny. 1.MD.3.T
- u Identify the name of both a penny and a dime. 1.MD.3.U
- v Engage with pennies and dimes. 1.MD.3.V
- w Engage with money. 1.MD.3.W

Represent and interpret data.

4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. 1.MD.4

- a Identify the total number of data points. 1.MD.4.A
- b Identify the total number of data points in each category 1.MD.4.B
- c Ask questions about the data in the table. 1.MD.4.C
- d Answer questions about the data in the table. (i.e. how many, more or less...) 1.MD.4.D
- e Interpret data in a table by comparing all three columns. 1.MD.4.E
- f Represent data by creating a table to organize information. 1.MD.4.F
- g Organize data into up to a three column chart. 1.MD.4.G
- h Fill in a chart or table using data. 1.MD.4.H
- i Sort data by category. 1.MD.4.I
- j Compile data from a survey to use in a chart or table. 1.MD.4.J
- k Identify a data source. 1.MD.4.K
- l Identify a chart or table. 1.MD.4.L
- m Engage with a data chart. 1.MD.4.M

Geometry

Reason with shapes and their attributes.

1. Distinguish between defining attributes, e.g., triangles are closed and three-sided, versus nondefining attributes, e.g., color, orientation, overall size; build and draw shapes that possess defining attributes. 1.G.1
   - a. Draw shapes with defining attributes. 1.G.1.A
   - b. Define attributes of a given shape. 1.G.1.B
   - c. Sort shapes by non-defining attributes (size, color, orientation). 1.G.1.C
   - d. Identify non-defining attributes. (i.e. color, orientation, overall size) 1.G.1.D
   - e. Match the term attribute to its definition. 1.G.1.E
   - f. Describe each shape in detail. (i.e. triangles have three sides and three angles) 1.G.1.F
   - g. Identify 2-D shapes. 1.G.1.G
   - h. Engage with 2-D shapes. 1.G.1.H
2. Compose twodimensional shapes (rectangles, squares, trapezoids, triangles, halfcircles, and quarter-circles) or three- dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Students do not need to learn formal names such as “right rectangular prism.” 1.G.2
   - a. Use 2-D shapes (such as attribute blocks or geoboards) to create a new shapes. 1.G.2.A
   - b. Compose 3-D shapes. (i.e.cubes, right rectangular prisms, right circular cones, and right circular cylinders) 1.G.2.B
   - c. Compose 2-D shapes. (i.e. rectangles, squares, trapezoids, triangles, diamond, half-circles, and quarter-circles) 1.G.2.C
   - d. Identify shapes as two-dimensional or three- dimensional (i.e., flat vs. solid). 1.G.2.D
   - e. Identify 3-D shapes by name. 1.G.2.E
   - f. Identify 2-D shapes by name. 1.G.2.F
   - g. Identify shapes vs.numbers or letters. 1.G.2.G
   - h. Engage with 3-D and 2-D shapes. 1.G.2.H
3. Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of or four of the shares in realworld contexts. Understand for these examples that decomposing into more equal shares creates smaller shares. 1.G.3
   - a. Describe each equal part as a share of the whole. 1.G.3.A
   - b. Partition circles into two or four equal parts. 1.G.3.B
   - c. Partition rectangles into two, four equal parts. 1.G.3.C

d Identify the whole as “two halves,” “four fourths” etc. using real world examples. (i.e. pie, pizza, cookie, etc.) 1.G.3.D

e Identify the parts as “halves,” “quarters,” “fourths”, etc. 1.G.3.E

f Count the number of sections in a circle that has been divided into equal parts (e.g., half, quarter, third). 1.G.3.F

g Use models to put together circles from equal fractional parts. 1.G.3.G

h Use models to put together squares or rectangles from equal fractional parts. 1.G.3.H

i Engage with fractional parts of a shape. 1.G.3.I

j Engage with fractional shapes. 1.G.3.J