## DISCLAIMERS

The OCTAE College and Career Readiness Standards document below contains links to other websites, all of which are revised from time to time. Laurens County Adult Education is neither responsible for the content of these links nor the current availability of the links.

Some of the online links may take the teacher to a Common Core website that offers free worksheets. The teacher should always vet the worksheet before assigning it to students. Anyone who follows the news or social media has seen ridiculous Common Core math problems on worksheets that elementary school teachers have sent home with students for homework. Examine all worksheets closely to see that they will be effective for adult students before you decide to print and use them.

These documents are not perfect. They are merely intended to give the teacher a starting point for each standard.

Please send any corrections that need to be addressed to Anita Wilson at awilson@laurens55.org.

Constructive feedback is also welcomed.

## Using the College and Career Readiness Standards Documents

1. Every document is formatted so that each standard is presented on exactly one page. Because of this formatting, the print size will differ from page to page depending on the length of the standard or the number of print or online resources aligned with the standard. Font sizes will range from 9 to 12 , with most being either 10 or 11 .
2. The list of print resources is merely a starting point. Included are the most commonly used books here at Laurens County Adult Education for the 2014 series GED® tests. Other resources include the Contemporary books, the SteckVaughn GED books, the Number Power series, etc., that were used for the 2002 series GED® ${ }^{\circledR}$ tests. All of the Laurens County Adult Education sites will have some, but perhaps not all, of those additional resources since books have disappeared over the years and the older books have not been replaced. Some of the print resources are closely aligned, but many may be loosely aligned.
3. The list of online resources is also merely a starting point. As with print resources, some online resources are better than others. The teacher should always vet a website before sending students to that website. Khan Academy (Mathematics) and Learnzillion often include videos to explain the standard. Note that the links included in each document will take the teacher to a "home page" for each standard. Khan Academy, for example, may have several links under each standard, and when the teacher clicks on each link, the teacher will find several lessons to address the standard. Feel free to explore each website to determine lessons that best suit individual students.
4. The reading level for some of the print resources may be above the reading level of some of the students in your class who are on the Adult Literacy Level. The teacher may find the print resources useful for generating ideas for lessons for weaker readers.
5. The iPad resources mostly include the "Maths" app by Your Teacher. There is a "Fraction Math" app that can be useful for the low intermediate student.

For example, the directions on the iPad resources may look something like this:
Maths app >> Pre-Algebra >> Chapter 3: Fractions >> Multiples and Least Common Multiple

To reach this lesson, tap the "Maths App" folder at the bottom of the iPad. Then tap on "Maths." The home screen offers four courses (Pre-Algebra, Algebra 1, Geometry, and Algebra 2). Select "Pre-Algebra." Then select "Chapter 3: Fractions." The screen will open up to give you multiple topics. Select "Multiples and Least Common Multiple."

The Fraction Math app opens up with a menu of five selections (Settings, Set, New, Terms, and Tip). Start with "Settings." A new menu opens up to let the teacher select addition, subtraction, multiplication, division, or any combination of the four operations by sliding the button beside each symbol. The teacher may then determine whether to allow only the same denominators, allow whole numbers, allow mixed numbers, allow negative numbers, or allow big numbers (greater than 12). Each lesson can be customized to fit the individual student's needs.

| Number and Operations: Base Ten <br> Understand place value |
| :--- |
| Understand that the two digits of a two-digit number represent amounts of tens <br> and ones. <br> Understand the following as special cases: <br> a. 10 can be thought of as a bundle of ten ones - called a "ten" <br> b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, <br> five, six, seven, eight, or nine ones. <br> c. (1.NBT.2) The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, <br> four, five, six, seven, eight, or nine tens (and 0 ones). <br> Online resources <br> https://www.khanacademy.org/commoncore/grade-1-NBT\#1.NBT.B.2 <br> https://www.ixl.com/math/kindergarten <br> https://www.illustrativemathematics.org/content-standards/1/NBT/B/2 |

OCTAE Level 1 Math (Beginning Adult Literacy)

## Number and Operations: Base Ten

## Understand place value

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

## Online resources

https://www.khanacademy.org/commoncore/grade-1-NBT\# 1.NBT.B. 3
https://www.ixl.com/math/grade-1 Comparing: G.1, G.2, and G. 3
https://www.illustrativemathematics.org/content-standards/1/NBT/B/3

## Number and Operations: Base Ten

Use place value understanding and the properties of operations to add and subtract.
1.NBT. 4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit 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; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digits numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-NBT\#1.NBT.C. 4
https://www.ixl.com/math/grade-1 Addition: B.1-B.3; B.6-B.16; B.22, B. 24 B. 29
https://www.illustrativemathematics.org/content-standards/1/NBT/C/4

OCTAE Level 1 Math (Beginning Adult Literacy)

Number and Operations: Base Ten
Use place value understanding and the properties of operations to add and subtract.
1.NBT. 5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-NBT\#1.NBT.C. 5
https://www.ixl.com/math/grade-1 Addition: B. 24 and B. 25
https://www.illustrativemathematics.org/content-standards/1/NBT/C/5

## Number and Operations: Base Ten

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

## Online resources

https://www.khanacademy.org/commoncore/grade-1-NBT\# 1.NBT.C. 6
https://www.ixl.com/math/grade-1 Subtraction: D.1-D.3, D.9, D.11, D. 18 and D. 19
https://www.illustrativemathematics.org/content-standards/1/NBT/C/6

## Operations and Algebraic Thinking

Represent and solve problems involving addition and subtraction.
1.OA.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.

## Online resources

https://www.khanacademy.org/commoncore/grade-l-OA
https://www.ixl.com/math/grade-1 Addition: B.4, B.5, B.15, B.17, B.18, and B. 22
https://www.illustrativemathematics.org/content-standards/1/OA/A/2

| Operations and Algebraic Thinking |
| :--- |
| Understand and apply properties of operations and the relationship between <br> addition and subtraction. |
| 1.OA.3 Apply properties of operations as strategies to add and subtract. <br> Examples: If $8+3=11$ is known, then $3+8=11$ is also known (Commutative <br> Property of Addition). To add $2+6+4$, the second two numbers can be added <br> to make a ten, so $2+6+4=2+10=12$ (Associative Property of Addition). |
| Online resources |
| https://www.khanacademy.org/commoncore/grade-1-OA\# 1.OA.B.3 |
| https://www.ixl.com/math/grade-1 $\quad$ Addition: B.17 and B.20 |
| https://www.illustrativemathematics.org/content-standards/l/OA/B/3 |

## Operations and Algebraic Thinking

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

1.OA. 4 Understand subtraction as an unknown-added problem.

For example, subtract $10-8$ by finding the number that makes 10 when added to 8.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-OA\# 1.OA.B. 4
https://www.ixl.com/math/grade-1 Subtraction: D.1-D.3, D.6-D. 9
https://www.illustrativemathematics.org/content-standards/l/OA/B/4

## Operations and Algebraic Thinking

## Add and subtract within 20.

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

Online resources
https://www.khanacademy.org/commoncore/grade-1-OA\# 1.OA.C. 5
https://www.ixl.com/math/kindergarten Skip-Counting: F. 2
https://www.illustrativemathematics.org/content-standards/1/OA/C/5

## Operations and Algebraic Thinking

Add and subtract within 20.
1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as 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 that 12-8=4); and creating equivalent but easier or known sums (e.g., addition $6+7$ by creating the known equivalent $6+6+1=12+1=13$ ).

## Online resources

https://www.khanacademy.org/commoncore/grade-1-OA\# 1.OA.C. 6
https://www.ixl.com/math/grade-1 Addition: B.12, B.14, B.17, B.22; Addition Skill Builders: C.1 - C.10; Subtraction: D.11, D.13; Subtraction - Skill Builders: E. 1 E. 10
https://www.illustrativemathematics.org/content-standards/l/OA/C/6

Operations and Algebraic Thinking
Work with addition and subtraction.
1.OA.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? $6=6 ; 7=8 ; 5+2=2+5 ; 4+1=5+2$.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-OA\# 1.OA.D. 7
https://www.ixl.com/math/grade-1 Addition: B.23; Subtraction: D.17; Mixed Operations: F. 7
https://www.illustrativemathematics.org/content-standards/1/OA/D/7

## Operations and Algebraic Thinking <br> Work with addition and subtraction.

1.OA.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 $8+?=11 ; 5=\square-3 ; 6+6=\square$.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-OA\#1.OA.D. 8
https://www.ixl.com/math/grade-1 Addition: B.16; Subtraction: D. 15
https://www.illustrativemathematics.org/content-standards/1/OA/D/8

OCTAE Level 1 Math (Beginning Adult Literacy)

## Geometry

Analyze, compare, create, and compose shapes.
K.G. 4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

## Online resources

https://www.khanacademy.org/commoncore/grade-K-G\#K.G.B. 4
https://www.ixl.com/math/kindergarten Geometry: S.1-S.7
https://www.illustrativemathematics.org/content-standards/K/G/B/4

## Geometry

Reason with shapes and their attributes.
1.G.2 Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, 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.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-G\#1.G.A. 2
https://www.illustrativemathematics.org/content-standards/1/G/A/2

## Measurement and Data

Measure lengths indirectly and by iterating length units.
1.MD. 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 the same-size 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.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-MD\#1.MD.A. 2
https://www.illustrativemathematics.org/content-standards/1/MD/A/2

## Measurement and Data <br> Represent and interpret data.

1.MD. 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.

## Online resources

https://www.khanacademy.org/commoncore/grade-1-MD\#1.MD.C. 4
https://www.ixl.com/math/grade-1 Data and Graphs: M. 1 - M. 4
https://www.illustrativemathematics.org/content-standards/1/MD/C/4

