

Major Work of Grade 3

The purpose of this document is to provide a brief overview of the most essential content in the grade level along with a progression of how the content was addressed in the prior grade level and will prepare students for content in the future grade level. This is not a comprehensive list of content in the grade level as defined in the Utah Core Standards, but rather highlights the major work of the grade level.

<i>Major Work of Grade Band: Grades 3 - 5</i>		
3	4	5
Represent and understand multiplication and division		
Develop understanding of fractions		
	Generalize and use place value understanding	
Solve problems involving measurement		Understand concepts of volume

Vertical Alignment of Major Work

<i>Major Work: Represent and Understand Multiplication and Division</i>
Prior grades: Begin understanding equal groups (2.OA.3). Find the total number of objects arranged in rectangular arrays (2.OA.4) and partition a rectangle into rows and columns (2.G.2).
Grade 3: Develop an understanding of the meanings of multiplication and division, apply properties of operations as strategies to multiply and divide, and represent and solve multiplication and division problems within 100 (3.OA.1-6). By the end of Grade 3, know from memory all products of two one-digit numbers (3.OA.7.b).
Future grades: Understand multiplication as comparison (4.OA.1-2). Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers (4.NBT.5). Divide with up to four-digit dividends and one-digit divisors (4.NBT.6).

<i>Major Work: Develop Understanding of Fractions</i>
Prior grades: Students partition circles and rectangles into two, three, or four shares and describe the shares using words such as halves, thirds, etc. (2.G.3) and measure an object using unit lengths (2.MD.2).
Grade 3: Students develop an understanding of fractions as numbers with 2, 3, 4, 6, and 8 as denominators. This includes understanding unit fractions as one part of the whole written with a numerator and denominator (3.NF.1, 3.G.2). Students represent a fraction as a number on a number line (3.NF.2), understand fraction equivalence with visual models and number lines, and compare two fractions with the same numerator or same denominator (3.NF.3).

Future grades: In fourth grade, denominators extend to include 5, 10, 12, and 100. Students continue to work with equivalence by reasoning about the number and size of the parts (4.NF.1) and compare two fractions with different numerators and different denominators (4.NF.2). Understand fractions as sums of unit fractions. Add and subtract fractions and mixed numbers with like denominators (4.NF.3). Multiply a fraction by a whole number (4.NF.4). Understand decimal notation to the hundredths and compare decimal fractions with denominators of 10 and 100 (4.NF.5–7).

Major Work: Solve Problems Involving Measurement

Prior grades: Recognize the need for standard units of measure. Estimate lengths and use appropriate tools to measure the length of objects using standard units (2.MD.1-4). Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares (2.G.1).

Grade 3: Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. (3.MD.1-2). Recognize area as an attribute of two-dimensional regions and relate the concept of area to multiplication and addition (3.MD.5-7). Solve real world and mathematical problems involving perimeter and area (3.MD.8).

Future grades: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit (4.MD.1-2). Apply the area and perimeter formulas for rectangles in real-world and mathematical problems (4.MD.3).