

## Grade 3 Priority Standards

### **Operations and Algebraic Thinking**

**3.OA.1** Interpret products of whole numbers, e.g., interpret  $5 \times 7$  as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as  $5 \times 7$ .

**3.OA.2** Interpret whole-number quotients of whole numbers, e.g., interpret  $56 \div 8$  as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as  $56 \div 8$ .

**3.OA.3** Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

**3.OA.4** Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations  $8 \times ? = 48$ ,  $5 = \_ \div 3$ ,  $6 \times 6 = ?$

**3.OA.5** Apply properties of operations as strategies to multiply and divide. (Students need not use formal terms for these properties.)  
Examples: If  $6 \times 4 = 24$  is known, then  $4 \times 6 = 24$  is also known. (Commutative property of multiplication.)  $3 \times 5 \times 2$  can be found by  $3 \times 5 = 15$ , then  $15 \times 2 = 30$ , or by  $5 \times 2 = 10$ , then  $3 \times 10 = 30$ . (Associative property of multiplication.) Knowing that  $8 \times 5 = 40$  and  $8 \times 2 = 16$ , one can find  $8 \times 7$  as  $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$ . (Distributive property.)

**3.OA.6** Understand division as an unknown-factor problem. For example, find  $32 \div 8$  by finding the number that makes 32 when multiplied by 8.

**3.OA.7** Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that  $8 \times 5 = 40$ , one knows  $40 \div 5 = 8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

**3.OA.8** Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order, i.e., Order of Operations.)

**3.OA.9** Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.

### **Number and Operations in Base Ten**

**3.NBT.1** Use place value understanding to round whole numbers to the nearest 10 or 100.

**3.NBT.2** Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

### **Numbers and Operations - Fractions**

**3.NF.1** Understand a fraction  $1/b$  as the quantity formed by 1 part when a whole is partitioned into  $b$  equal parts; understand a fraction  $a/b$  as the quantity formed by  $a$  parts of size  $1/b$ .

**3.NF.2.B** Represent a fraction  $a/b$  on a number line diagram by marking off  $a$  lengths  $1/b$  from 0. Recognize that the resulting interval has size  $a/b$  and that its endpoint locates the number  $a/b$  on the number line.

**3.NF.2.A** Represent a fraction  $1/b$  on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into  $b$  equal parts. Recognize that each part has size  $1/b$  and that the endpoint of the part based at 0 locates the number  $1/b$  on the number line.

**3.NF.3.A** Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

**3.NF.3.B** Recognize and generate simple equivalent fractions, e.g.,  $1/2 = 2/4$ ,  $4/6 = 2/3$ . Explain why the fractions are equivalent, e.g., by using a visual fraction model.

**3.NF.3.C** Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. *Examples: Express 3 in the form  $3 = 3/1$ ; recognize that  $6/1 = 6$ ; locate  $4/4$  and 1 at the same point of a number line diagram.*

**3.NF.3.D** Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols  $>$ ,  $=$ , or  $<$ , and justify the conclusions, e.g., by using a visual fraction model.

### **Measurement and Data**

**3.MD.1** Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

**3.MD.2** Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

**3.MD.5** Recognize area as an attribute of plane figures and understand concepts of area measurement.

**3.MD.6** Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

**3.MD.7** Relate area to the operations of multiplication and addition.

**3.MD.7.A** Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

**3.MD.7.B** Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

**3.MD.7.C** Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths  $a$  and  $b + c$  is the sum of  $a \times b$  and  $a \times c$ . Use area models to represent the distributive property in mathematical reasoning.

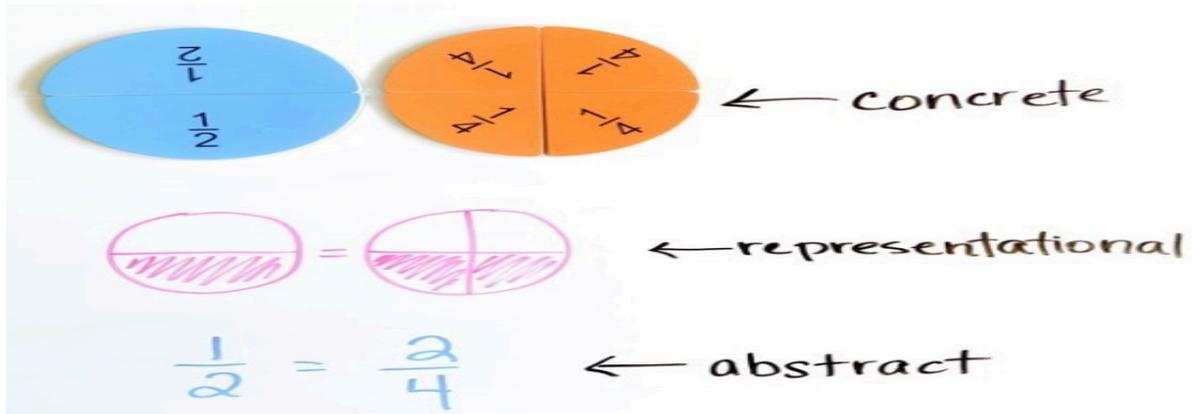
**3.MD.7.D** Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

### **Geometry**

**3.G.1** Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

**3.G.2** Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as  $1/4$  of the area of the shape.

Grade 3 Curriculum Resources



Eureka Math  
[Edreports.org](http://Edreports.org)

Module 1  
 Properties of  
 Multiplication and  
 Division and Solving  
 Problems with Units of  
 2-5 and 10

Module 1 builds on students' addition fluency and array knowledge to develop their understanding of multiplication and division. The module concludes with multi-step word problems involving all four operations, encouraging flexible problem-solving and reasoning about answer reasonableness.

Module 2  
 Place Value and  
 Problem Solving with  
 Units of Measure

Module 2 focuses on measurement concepts involving kilograms, grams, liters, milliliters, and time intervals in minutes. The module also offers pacing suggestions for differentiation, including lesson omissions and consolidations to accommodate varied classroom needs without sacrificing core skills.

Module 3  
 Multiplication and  
 Division with Units of 0,  
 1, 6-9, and Multiples of  
 10

Module 3 builds on multiplication and division fluency from Module 1, extending factor study to include all numbers 0–10 and multiples of 10 within 100. Throughout, students deepen understanding of multiplication and division strategies, arithmetic properties, and problem-solving with unknown quantities.

Module 4  
 Multiplication and Area

Module 4 introduces area as the amount of two-dimensional space within a figure, building on Grade 2 work with arrays and repeated addition.

Module 5  
 Fractions as Numbers  
 on the Number Line

Module 5 deepens students' understanding of fractions as equal parts of a whole, building on Grade 2 concepts with area models and number lines. Students work extensively with halves, thirds, fourths, sixths, and eighths, and are introduced to additional units like fifths, ninths, and tenths for flexible thinking. The module emphasizes flexible fraction reasoning through multiple representations and comparisons.

Module 6  
 Collecting and  
 Displaying Data

Module 6 expands on Grade 2 data and graphing concepts, focusing on categorical and measurement data representation. This develops students' skills in data representation, analysis, and problem solving with increasingly precise measurement data.

Module 7  
 Geometry and  
 Measurement Word  
 Problems

Module 7 offers intensive practice with word problems and hands-on geometry and perimeter exploration. The module integrates problem solving, reasoning, geometry, and measurement to consolidate and extend key Grade 3 concepts.

