

# Grade 3

## Relationships and Algebraic Thinking

### **A Represent and solve problems involving multiplication and division.** 3.RA.A

- 1 Interpret products of whole numbers. 3.RA.A.1
  - 2 Interpret quotients of whole numbers. 3.RA.A.2
  - 3 Describe in words or drawings a problem that illustrates a multiplication or division situation. 3.RA.A.3
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### **C Multiply and divide within 100.** 3.RA.C

- 7 Multiply and divide with numbers and results within 100 using strategies such as the relationship between multiplication and division or properties of operations. Know all products of two one-digit numbers. 3.RA.C.7
  - 8 Demonstrate fluency with products within 100. 3.RA.C.8
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### **D Use the four operations to solve word problems.** 3.RA.D

- 9 Write and solve two-step problems involving variables using any of the four operations. 3.RA.D.9
  - 10 Interpret the reasonableness of answers using mental computation and estimation strategies including rounding. 3.RA.D.10
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### **E Identify and explain arithmetic patterns.** 3.RA.E

- 11 Identify arithmetic patterns and explain the patterns using properties of operations. 3.RA.E.11
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## Number Sense and Operations in Fractions

### A Develop understanding of fractions as numbers. 3.NF.A

- 1 Understand a unit fraction as the quantity formed by one part when a whole is partitioned into equal parts. 3.NF.A.1
  - 2a Describe the numerator as representing the number of pieces being considered. 3.NF.A.2A
  - 2b Describe the denominator as the number of pieces that make the whole. 3.NF.A.2B
  - 5 Recognize and generate equivalent fractions using visual models, and justify why the fractions are equivalent. 3.NF.A.5
  - 6 Compare two fractions with the same numerator or denominator using the symbols  $>$ ,  $=$  or  $<$ , and justify the solution. 3.NF.A.6
  - 7 Explain why fraction comparisons are only valid when the two fractions refer to the same whole. 3.NF.A.7
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## Geometry and Measurement

### A Reason with shapes and their attributes. 3.GM.A

- 1 Understand that shapes in different categories may share attributes and that the shared attributes can define a larger category. 3.GM.A.1
  - 2 Distinguish rhombuses and rectangles as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to these subcategories. 3.GM.A.2
  - 3 Partition shapes into parts with equal areas, and express the area of each part as a unit fraction of the whole. 3.GM.A.3
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### B Solve problems involving the measurement of time, liquid volumes and weights of objects. 3.GM.B

- 7 Measure or estimate length, liquid volume and weight of objects. 3.GM.B.7
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### C Understand concepts of area. 3.GM.C

- 13 Find rectangular arrangements that can be formed for a given area. 3.GM.C.13
  - 14 Decompose a rectangle into smaller rectangles to find the area of the original rectangle. 3.GM.C.14
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### D Understand concepts of perimeter. 3.GM.D

- 15 Solve problems involving perimeters of polygons. 3.GM.D.15
- 16 Understand that rectangles can have equal perimeters but different areas, or rectangles can have equal areas but different perimeters. 3.GM.D.16