South Dakota Mathematics

3rd Grade

Numbers N

Place Value

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

2 Compose and decompose four-digit numbers into thousands, hundreds, tens, and ones. 3.N.2

3 Read and write whole numbers up to 10,000 using standard form, word form, and expanded form. 3.N.3

Operations and Algebraic Thinking 0A

Number Operations

1 Use visual models (e.g., arrays, equal groups, number lines) to explain and justify multiplication as combining equal groups. 3.0A.1

2 Use visual models (e.g., arrays, equal groups, number lines) to explain and justify division as separating into equal groups. 3.0A.2

3 Solve word problems using multiplication and division within 100 using drawings and equations with a symbol for the unknown quantities. 3.0A.3

4 Determine the unknown whole number in a multiplication or division equation relating to three whole numbers. 3.0A.4

5 Apply properties of operations as strategies to multiply and divide. 3.0A.5

6 Understand that multiplication and division are inverse operations. 3.0A.6

7 Demonstrate understanding of multiplication and division within 100 by using arrays, equal groups, and number lines to explain the relationship between the two operations. 3.0A.7

8 Demonstrate understanding of addition and multiplication problems using properties (commutative, associative, and identity). 3.0A.8

9 Solve two-step word problems using addition, subtraction, multiplication, and division using an equation with a symbol for the unknown quantity; Assess the reasonableness of answers using mental computation and estimation strategies including rounding. 3.0A.9

10 Identify and explain arithmetic patterns. 3.0A.10

Fractions F

Fraction Foundation

1 Understand the denominator of a fraction represents the number of equal parts the whole is broken into. 3.F.1

2 Understand the numerator of a fraction represents the number of selected equal parts. 3.F.2

3 Understand fractions as parts of a whole, as numbers on a number line, and as multiples of unit fractions. 3.F.3

4 Use number lines and area models to explain why two fractions are equivalent and how they represent the same quantity (include fractions with denominators 2, 3, 4, 6 and 8). 3.F.4

5 Recognize and generate equivalent fractions and explain why they are equivalent. 3.F.5

6 Express whole number fractions and recognize fractions that are equivalent to whole numbers. 3.F.6

7 Compare two fractions with the same numerator or the same denominator using the symbols <, >, =. 3.F.7

Measurement M

Measurement Concepts

1 Understand area to be the amount of space inside a two-dimensional shape. 3.M.1

2 Understand a square unit to be a square that is 1 unit on each side and is used to measure area. 3.M.2

3 Understand a shape has an area of nn square units if it can be covered with nn unit squares without gaps or overlaps. 3.M.3

4 Measure areas by square units. 3.M.4

5 Use tiling and visual models to explain how multiplying side lengths of a rectangle represents its area. 3.M.5

6 Solve word problems involving areas of rectangles. 3.M.6

7 Use tiling with area models to represent the distributive property of multiplication. 3.M.7

8 Understand that area can be found by adding the areas of non-overlapping rectangles and use this method to solve real-world problems. 3.M.8

9 Understand perimeter as the distance around a two-dimensional shape. 3.M.9

10 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding unknown side lengths, and creating rectangles with the same perimeter and different areas or with the same area and different perimeters. 3.M.10

11 Measure and estimate liquid volumes using the U.S. Customary and metric system. 3.M.11

12 Measure and estimate masses of objects using the U.S. Customary and metric system. 3.M.12

13 Solve one-step addition, subtraction, multiplication, and division word problems involving masses or volumes in the same units. 3.M.13

14 Measure lengths using rulers to halves and fourths of an inch. 3.M.14

Time and Money

15 Tell and write time to the nearest minute using an analog and digital clock. 3.M.15

16 When solving word problems add, subtract, multiply and divide time to the minute. 3.M.16

17 Determine the value of a collection of U.S. coins and bills up to $100.00 using decimal notation. 3.M.17

Data

18 Create a scaled table, bar graph, circle graph, and line graph to represent a given set of data. 3.M.18

19 Interpret and analyze one and two -step data problems with scaled tables, bar graphs, circle graphs, and line graphs. 3.M.19

20 Make a line plot using horizontal scale marked off in whole numbers, halves, or quarters. 3.M.20

Geometry G

Shapes

1 Understand that shapes in different categories may share attributes and can define a larger category. 3.G.1

2 Understand that a quadrilateral is any four-sided shape, and identify and describe the relationships between various quadrilaterals, including trapezoids, parallelograms, rectangles, and squares. 3.G.2

3 Break apart shapes into parts with equal areas and express the area of each part as a unit fraction of the whole. 3.G.3

4 Determine whether a shape is a polygon or non-polygon. 3.G.4

5 Classify polygons based on the number of sides. 3.G.5

Mathematical Fluency MF

MF. Mathematical Fluency MF

Fluently use multiplication strategies to mentally solve multiplication facts through 12. 3.MF.1

1 Fluently use multiplication strategies to mentally solve multiplication facts through 12. 3.MF.1

Recall from memory multiplication facts (0-12) to include 0, 1, 2, 5, and 10. 3.MF.2

2 Recall from memory multiplication facts (0-12) to include 0, 1, 2, 5, and 10. 3.MF.2

Fluently add within 1,000 using various strategies. 3.MF.3

3 Fluently add within 1,000 using various strategies. 3.MF.3

Fluently subtract within 1,000 using various strategies. 3.MF.4	**4** **Fluently subtract within 1,000 using various strategies.** 3.MF.4
Fluently multiply one-digit whole numbers by multiples of 10 in the range 10-90. 3.MF.5	**5** **Fluently multiply one-digit whole numbers by multiples of 10 in the range 10-90.** 3.MF.5