



Bridges in Mathematics & Number Corner Second Edition

South Carolina

College- and Career-Ready Standards for Mathematics

CORRELATIONS

Key Concepts in Mathematics

Content Standards for Mathematics

- Number Sense and Base Ten (NBT)
- Number Sense and Operations – Fractions (NSF)
- Algebraic Thinking and Operations (ATO)
- Geometry (G)
- Measurement and Data Analysis (MDA)

Mathematical Process Standards

1. Make sense of problems and persevere in solving them.
2. Reason both contextually and abstractly.
3. Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others.
4. Connect mathematical ideas and real-world situations through modeling.
5. Use a variety of mathematical tools effectively and strategically.
6. Communicate mathematically and approach mathematical situations with precision.
7. Identify and utilize structure and patterns.



NUMBER SENSE AND BASE TEN

5.NSBT.1 Understand that, in a multi-digit whole number, a digit in one place represents 10 times what the same digit represents in the place to its right, and represents 1/10 times what the same digit represents in the place to its left.

Unit 3: M1–S3, S4, S5 M2–S1, S2, S4 M3–S4
Unit 4: M1–S1-DP
Unit 7: M4–S1

Nov: CC
Feb: SP
Mar: CG

5.NSBT.2 Use whole number exponents to explain:

a. patterns in the number of zeroes of the product when multiplying a number by powers of 10;

Unit 3: M1–S1, S3, S4 M3–S1, S3, S4 M4–S4
Unit 4: M3–S5-HC
Unit 6: M1–S2-DP, S7, S7-WP6A
Unit 7: M1–S1, S2 M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S4 M4–S1, S1-DP, S4

Nov: CC
Dec: PS
Jan: PS
Feb: CC, SP

b. patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.

Unit 3: M1–S1, S3, S4 M3–S1, S3, S4 M4–S4
Unit 4: M3–S5-HC
Unit 6: M1–S2-DP, S7, S7-WP6A
Unit 7: M1–S1, S2 M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S4 M4–S1, S1-DP, S4

Nov: CC
Dec: PS
Jan: PS
Feb: CC, SP

5.NSBT.3 Read and write decimals in standard and expanded form. Compare two decimal numbers to the thousandths using the symbols $>$, $=$, or $<$.

Unit 3: M1–S1, S5 M2–S1, S1-DP, S1-HC, S2, S2-WP3B, S3, S3-DP, S3-HC, S3-WP3C, S4, S4-DP, S5, S5-DP, S5-HC, S6, S6-DP, S7, S7-DP, S7-HC
M3–S4-HC M4–S3-HC, S4
Unit 4: M1–S1-DP, S1-HC M2–S3-HC
Unit 7: M3–S2-DP, S4-DP, S4-HC M4–S1-DP, S2-DP

Nov: CC
Mar: CF
Apr: CF

5.NSBT.4 Round decimals to any given place value within thousandths.

Unit 3: M1–S1 M2–S3, S3-HC, S3-WP3C, S4-DP, S7, S7-DP, S7-HC M3–S1, S2-HC, S4-DP, S4-HC M4–S4
Unit 4: M1–S1-DP M2–S2-DP M4–S2-HC
Unit 5: M1–S3-HC M4–S3-DP
Unit 7: M1–S4-HC M2–S6-HC M3–S4-HC

Nov: CC
Dec: CF
Apr: CF

5.NSBT.5 Fluently multiply multi-digit whole numbers using strategies to include a standard algorithm.

Unit 4: M1–S1 M3–S4-DP, S5, S5-DP, S5-HC, S6, S6-DP, S7, S7-DP, S7-HC M4–S1, S1-DP, S2-HC, S3-DP, S4-HC, S5
Unit 5: M1–S1-HC M2–S1-DP M4–S3-DP
Unit 6: M1–S4-DP, S4-HC M3–S1-HC, S3-DP
Unit 7: M1–S1-DP, S6-HC M2–S2-DP
Unit 8: M2–S3, S3-DP, S5, S5-HC M3–S2-DP, S3, S3-HC, S4, S4-DP, S5, S5-DP M4–S1, S2-HC

Feb: CF
Mar: CG, SP

NUMBER SENSE AND BASE TEN

5.NSBT.6 Divide up to a four-digit dividend by a two-digit divisor, using strategies based on place value, the properties of operations, and the relationship between multiplication and division.

Unit 1: M2–S3-HC M3–S1, S1-DP, S1-HC, S2-DP, S3, S3-HC, S4-DP M4–S1, S1-HC, S3, S4, S4-DP, S4-WP1D, S5, S5-DP
Unit 3: M1–S1, S4-HC M4–S1, S1-DP, S2, S2-DP, S2-HC, S3, S3-WP3E, S4, S4-DP
Unit 4: M1–S1, S2, S2-DP, S2-WP4A, S3-DP, S3-HC, S4-DP M2–S1-WP4B, S4-DP M3–S1-DP, S7 M4–S1, S1-WP4D, S2, S2-DP, S3, S3-DP, S4, S4-DP, S4-HC, S4-WP4E, S5, S5-DP
Unit 5: M1–S1-HC M2–S2-HC, S4-HC M4–S1, S1-DP, S1-HC, S2-DP, S4-DP
Unit 6: M1–S1, S4-DP, S4-HC M3–S1, S3-DP, S5, S5-WP6C M4–S4
Unit 7: M1–S1, S2, S2-DP, S2-HC, S3, S3-DP, S4, S4-DP, S4-HC, S5, S5-DP, S6 M2–S1, S2, S2-HC, S3, S3-WP7B, S4, S4-DP, S4-HC, S5, S5-DP, S6, S6-DP, S6-HC
M3–S1, S2-HC M4–S3-DP, S4
Unit 8: M1–S5, S5-DP M2–S3, S3-DP M3–S3, S4, S4-DP, S5

Dec: PS
Jan: PS
Feb: CF
Mar: SP

5.NSBT.7 Add, subtract, multiply, and divide decimal numbers to hundredths using concrete area models and drawings.

Unit 1: M4–S5-HC
Unit 2: M2–S4, S5 M3–S1, S1-DP
Unit 3: M1–S1, S2, S3-DP, S4-DP, S4-HC M2–S1, S2, S2-DP, S3, S3-DP, S3-HC, S3-WP3C, S4, S4-WP3D, S5, S5-HC, S6, S6-DP, S7, S7-DP, S7-HC M3–S1, S1-DP, S2, S2-DP, S2-HC, S3-DP, S4, S4-DP, S4-HC M4–S3-HC, S4
Unit 4: M1–S1, S3, S3-DP, S3-HC, S4 M2–S1, S1-DP, S1-HC, S2, S3, S3-DP, S3-HC, S4, S4-DP M3–S1-DP, S1-HC, S5-HC, S6, S6-DP, S7, S7-HC M4–S1-WP4D, S2-HC, S4-HC, S5
Unit 5: M1–S3-HC M2–S4-DP M3–S3-HC M4–S1-DP, S2-DP, S3-DP, S4-DP, S5-DP
Unit 6: M1–S1-DP, S6-HC, S7, S7-WP6A M3–S3-HC M4–S1-DP
Unit 7: M1–S1, S5-DP M2–S1-DP M3–S2, S2-DP, S3, S3-DP, S4, S4-DP, S4-HC M4–S1, S2, S2-DP, S2-HC, S3, S3-HC, S4, S4-DP
Unit 8: M1–S3-DP, S5-DP M2–S3, S3-HC, S4-DP, S5, S5-HC M3–S2, S2-DP, S3, S4, S5, S5-DP M4–S3-DP

Sep: CG, PS
Oct: PS, SP
Nov: PS
Dec: PS, SP
Jan: CC, PS
Feb: CF
Mar: CG, CF, SP
Apr: CC, CF

NUMBER SENSE AND OPERATIONS –FRACTIONS

5.NSF.1 Add and subtract fractions with unlike denominators (including mixed numbers) using a variety of models, including an area model and number line.

Unit 2: M1–S1, S1-DP, S2, S2-DP, S2-HC, S3, S3-DP, S4, S4-DP, S4-HC, S4-WP2A, S5 M2–S1, S1-DP, S2, S2-WP2B, S3-HC, S4-DP, S5, S5-HC, S5-WP2C, S6, S6-DP
M3–S1-DP, S2, S2-DP, S3, S3-DP, S3-HC, S4, S4-DP, S5, S5-DP, S5-HC, S6, S6-DP M4–S1, S1-DP, S1-HC, S2, S2-DP, S3, S3-DP, S3-HC
Unit 3: M1–S1-DP, S2, S2-HC, S2-WP3A
Unit 4: M1–S1-DP M3–S7-HC
Unit 5: M1–S2, S2-DP, S2-WP5A, S3, S4, S5, S5-DP, S5-HC M2–S1, S3-DP, S4-DP, S5-DP M3–S1-HC, S3-HC M4–S1-DP, S2-DP, S3-DP, S4-DP, S5-DP, S6-DP
Unit 6: M4–S2-DP, S2-HC
Unit 7: M1–S6-HC

Oct: CF, PS
Nov: PS, SP
Dec: CF
Jan: CC, CF
Mar: CC, PS
Apr: CC, CF
May: CF

NUMBER SENSE AND OPERATIONS –FRACTIONS

5.NSF.3 Understand the relationship between fractions and division of whole numbers by interpreting a fraction as the numerator divided by the denominator (i.e., $ab = a \div b$).

Unit 2: M1–S4, S4-HC, S5 M2–S1, S1-HC, S2, S2-DP, S3, S3-HC, S4-DP, S5, S5-HC, S5-WP2C, S6, S6-DP
M3–S2, S3, S3-HC, S4, S4-DP, S5-DP, S5-HC, S6, S6-DP M4–S1, S1-HC, S2, S3, S3-DP, S3-HC
Unit 3: M1–S1-DP, S2-HC M2–S1-HC, S7-HC
Unit 4: M1–S1-DP
Unit 5: M2–S3-DP, S4-HC, S5-DP M4–S4-DP, S6-DP
Unit 6: M1–S1-DP, S2-HC, S6-HC M3–S3-HC M4–S2-DP
Unit 8: M2–S4-DP M3–S1-DP M4–S1-DP

Nov: SP
Dec: CF
Jan: CC
Mar: CC
Apr: CC, SP

5.NSF.4 Extend the concept of multiplication to multiply a fraction or whole number by a fraction.

Unit 1: M4–S2
Unit 2: M2–S4, S5, S5-DP, S6 M3–S1, S1-DP, S3, S3-DP, S6
Unit 3: M1–S2-HC
Unit 7: M1–S4 M2–S5, S5-DP, S6, S6-DP, S6-HC

a. Recognize the relationship between multiplying fractions and finding the areas of rectangles with fractional side lengths;

Unit 2: M2–S1, S1-HC, S2, S3, S3-DP, S5-HC, S6 M3–S3, S3-HC, S6
Unit 3: M1–S1-DP
Unit 4: M1–S1, S4 M2–S1, S1-DP, S1-HC, S2, S3 M3–S1, S1-WP4C, S7-DP, S7-HC M4–S2-HC, S4-HC, S5
Unit 5: M1–S1, S2, S2-DP, S2-WP5A, S3, S3-DP, S3-HC, S4, S4-DP, S5, S5-DP, S5-HC M2–S1, S2, S3, S4, S4-DP, S4-HC, S5, S5-DP
M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S4, S4-DP, S4-WP5B M4–S1-DP, S1-HC, S2-DP, S3-DP, S3-HC, S5-DP, S5-HC, S6
Unit 6: M1–S6-HC M4–S1, S1-DP, S2, S2-DP, S2-HC, S3
Unit 7: M1–S2-DP, S2-HC, S5, S6 M2–S2-HC M3–S2
Unit 8: M2–S3, S3-DP, S3-HC, S4, S4-DP, S5, S5-HC M3–S1-DP, S2, S2-DP, S3, S3-HC, S4, S4-DP, S5, S5-DP M4–S1, S1-DP, S2-DP, S3-DP

Oct: CF
Nov: SP
Jan: CC, CF
Feb: PS
Apr: CC, CF, PS, SP
May: CF, PS

b. Interpret multiplication of a fraction by a whole number and a whole number by a fraction and compute the product;

Unit 5: M1–S1 M2–S2, S3, S4, S5 M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S3-HC, S4 M4–S1-HC, S2-DP, S3-HC, S5-DP, S5-HC, S6
Unit 6: M4–S1, S1-DP, S2, S3
Unit 8: M2–S4, S4-DP, S5, S5-HC M3–S2, S2-DP, S3, S4, S4-DP, S5, S5-DP M4–S1, S1-DP, S2-DP, S3-DP

Feb: CG
Apr: PS
May: PS

c. Interpret multiplication in which both factors are fractions less than one and compute the product.

Unit 5: M1–S1, S2, S2-DP, S2-WP5A, S3, S3-DP, S3-HC, S4, S4-DP, S5, S5-DP, S5-HC

Oct: CF
Nov: SP
Jan: CC, CF

5.NSF.5 Justify the reasonableness of a product when multiplying with fractions.

Unit 5: M2–S1, S2, S3, S4, S4-DP, S4-HC, S5, S5-DP M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S4, S4-DP, S4-WP5B

Feb: CG
Apr: PS
May: PS

NUMBER SENSE AND OPERATIONS –FRACTIONS

a. Estimate the size of the product based on the size of the two factors;

Unit 5: M1–S1, S2, S2-DP, S2-WP5A, S3, S3-DP, S3-HC, S4, S4-DP, S5, S5-DP, S5-HC
M2–S1, S2, S3, S4, S4-DP, S4-HC, S5, S5-DP
M3–S1, S1-DP, S2, S2-DP, S3, S3-DP, S4, S4-DP, S4-WP5B

Oct: CF
Nov: SP
Jan: CC, CF

Feb: PS
Apr: CC, CF,
PS, SP
May: CF, PS

b. Explain why multiplying a given number by a number greater than 1 (e.g., improper fractions, mixed numbers, whole numbers) results in a product larger than the given number;

c. Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number;

Unit 5: M2–S4, S5
M3–S4, S4-DP, S4-WP5B
M4–S5-HC, S6

Feb: PS

d. Explain why multiplying the numerator and denominator by the same number has the same effect as multiplying the fraction by 1.

Unit 5: M1–S1, S3
M2–S4, S5
M3–S4, S4-DP, S4-WP5B

Feb: PS

5.NSF.6 Solve real-world problems involving multiplication of a fraction by a fraction, improper fraction and a mixed number.

Feb: PS

5.NSF.7 Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations.

Unit 5: M2–S3
M3–S1, S2
Unit 6: M4–S1, S2, S2-DP, S2-HC, S3, S3-DP
Unit 7: M1–S2-HC
Unit 8: M1–S1, S1-DP, S3-HC
M2–S3, S4-DP
M3–S3, S4, S5
M4–S1

Apr: PS
May: PS

a. Interpret division of a unit fraction by a non-zero whole number and compute the quotient;

b. Interpret division of a whole number by a unit fraction and compute the quotient.

Unit 5: M1–S1
M4–S4, S5, S5-DP, S5-HC, S6
Unit 7: M1–S1
M2–S1, S3, S3-DP, S4
M3–S2-HC
M4–S4

Apr: PS, SP
May: PS

5.NSF.8 Solve real-world problems involving division of unit fractions and whole numbers, using visual fraction models and equations.

Unit 5: M1–S1
M4–S2, S3, S3-HC, S4-DP, S5-DP, S5-HC, S6
Unit 7: M1–S1, S5, S6, S6-DP, S6-HC
M2–S1, S2-HC, S3, S3-DP, S4
M3–S2-HC
M4–S3-DP, S4
Unit 8: M2–S5-DP

Apr: PS, SP
May: PS

ALGEBRAIC THINKING AND OPERATIONS

5.ATO.1 Evaluate numerical expressions involving grouping symbols (i.e., parentheses, brackets, braces).

Unit 1: M1–S2-HC, S3, S4, S4-DP, S4-HC, S5, S5-DP M2–S1, S1-HC, S2-DP, S3, S3-DP, S3-HC, S4, S4-DP, S5, S6, S6-DP
M3–S1, S2, S2-DP, S3, S3-DP, S3-HC, S4, S4-DP, S4-WP1C M4–S1-DP, S1-HC, S2, S3-HC, S5
Unit 2: M3–S1-HC
Unit 3: M1–S2-DP, S4-DP, S4-HC
Unit 4: M1–S1-HC, S2-DP M2–S1, S1-WP4B, S2-DP M3–S1, S1-WP4C
Unit 5: M1–S3-HC
Unit 6: M1–S2-DP, S4-HC M3–S3
Unit 7: M1–S1-DP, S2-HC, S3, S3-DP, S3-WP7A, S4-HC M2–S2-HC, S4-HC
Unit 8: M1–S1, S1-DP, S3-HC, S4-DP

Sep: CC
Oct: CF
Nov: CF

5.ATO.2 Translate verbal phrases into numerical expressions and interpret numerical expressions as verbal phrases.

Unit 1: M1–S2, S2-DP, S2-HC, S3, S4, S4-DP, S4-HC, S5, S5-DP M2–S1, S1-DP, S2, S2-DP, S3, S3-DP, S3-HC, S4, S4-DP, S5, S6-DP
M3–S1, S1-DP, S1-HC, S2, S2-DP, S3, S3-DP, S3-HC M4–S1-DP, S1-HC, S2-DP, S3-HC, S5
Unit 2: M3–S1-HC
Unit 3: M1–S2-DP
Unit 4: M1–S1-HC, S2-DP, S3 M4–S1-DP
Unit 7: M1–S3-DP, S4-HC M2–S4-HC

Sep: CC
Nov: CF
Jan: CG
Mar: CG
Apr: CG

5.ATO.3 Investigate the relationship between two numerical patterns.

a. Generate two numerical patterns given two rules and organize in tables;

Unit 6: M1–S1, S4, S5, S6, S6-DP, S7 M4–S3-HC, S4

Sep: SP
Oct: SP
Jan: CG

b. Translate the two numerical patterns into two sets of ordered pairs;

Unit 6: M1–S1, S4, S5, S6, S6-DP, S7 M4–S3-HC,

Jan: CG

c. Graph the two sets of ordered pairs on the same coordinate plane;

Unit 6: M1–S1, S4, S5, S6, S6-DP, S7 M4–S3-HC, S4

Jan: CG

d. Identify the relationship between the two numerical patterns.

Unit 6: M1–S1, S4, S5, S6, S6-DP, S7 M4–S3-HC, S4

Sep: SP
Oct: SP
Jan: CG

GEOMETRY

5.G.1 Define a coordinate system.

a. The x- and y- axes are perpendicular number lines that intersect at 0 (the origin);

Unit 6: M1–S1, S2, S2-HC, S3, S3-DP, S4, S5, S5-DP, S6, S6-DP, S6-HC, S7, S7-DP, S7-WP6A M3–S1-DP, S2-DP, S3, S3-WP6B, S5-HC M4–S3-HC, S4

Oct: CC
Nov: CG
Dec: CC
May: CG

b. Any point on the coordinate plane can be represented by its coordinates;

Unit 6: M1–S1, S2, S2-HC, S3, S3-DP, S4, S5, S5-DP, S6, S6-DP, S6-HC, S7, S7-DP, S7-WP6A M3–S1-DP, S2-DP, S3, S3-WP6B, S5-HC M4–S3-HC, S4

Oct: CC
Nov: CG
Dec: CC
May: CG

c. The first number in an ordered pair is the x-coordinate and represents the horizontal distance from the origin;

Unit 6: M1–S1, S2, S2-HC, S3, S3-DP, S4, S5, S5-DP, S6, S6-DP, S6-HC, S7, S7-DP, S7-WP6A M3–S1-DP, S2-DP, S3, S3-WP6B, S5-HC M4–S3-HC, S4

Oct: CC
Nov: CG
Dec: CC
May: CG

d. The second number in an ordered pair is the y-coordinate and represents the vertical distance from the origin.

Unit 6: M1–S1, S2, S2-HC, S3, S3-DP, S4, S5, S5-DP, S6, S6-DP, S6-HC, S7, S7-DP, S7-WP6A M3–S1-DP, S2-DP, S3, S3-WP6B, S5-HC M4–S3-HC, S4

Oct: CC
Nov: CG
Dec: CC
May: CG

5.G.2 Plot and interpret points in the first quadrant of the coordinate plane to represent real-world and mathematical situations.

Unit 6: M1–S1, S2, S3, S4, S5, S6, S6-HC, S7, S7-DP M2–S2-DP M3–S1-DP, S5-HC M4–S3-HC, S4

Unit 8: M1–S2, S2-DP, S3, S3-DP, S4, S4-DP, S5-DP, S6-DP M2–S1, S2, S2-DP, S3, S4, S6, S6-DP M3–S1, S3-DP M4–S1

Oct: CC
Nov: CG
Dec: CC
May: CG

5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

Unit 6: M1–S1 M2–S1, S1-DP, S1-HC, S2, S2-DP, S3, S3-DP, S3-HC, S4, S4-DP M3–S1, S2-DP M4–S3-HC, S4

Dec: CG

5.G.4 Classify two-dimensional figures in a hierarchy based on their attributes.

Unit 6: M1–S1 M2–S1, S1-DP, S1-HC, S2, S3, S3-HC, S4, S4-DP M3–S1, S2-DP, S3, S3-WP6B M4–S3-HC, S4

Nov: CG
Dec: CG

MEASUREMENT AND DATA ANALYSIS

5.MDA.1 Convert measurements within a single system of measurement: customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., mm, cm, m, km, g, kg, mL, L) from a larger to a smaller unit and a smaller to a larger unit.

<p>Unit 3: M1–S1 M2–S7 M3–S1, S2-DP, S2-HC, S3, S3-DP, S4-DP, S4-HC M4–S3-DP, S3-HC, S4</p> <p>Unit 4: M4–S1, S1-WP4D, S3</p> <p>Unit 5: M1–S1-DP, S3, S3-DP</p> <p>Unit 6: M3–S1-HC M4–S3</p> <p>Unit 7: M1–S2-HC, S6-HC</p> <p>Unit 8: M2–S3, S3-HC, S5, S5-DP, S5-HC M3–S3, S4, S5, S5-DP M4–S1</p>	<p>Feb: CC, SP</p> <p>May: CC</p>
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5.MDA.2 Create a line plot consisting of unit fractions and use operations on fractions to solve problems related to the line plot.

	<p>Dec: CC</p> <p>Mar: CC</p>
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5.MDA.3 Understand the concept of volume measurement.

<p>Unit 1: M2–S2</p> <p>Unit 6: M3–S3-HC, S5-HC</p>	<p>Sep: CC</p> <p>Oct: CG</p> <p>Jan: SP</p> <p>Apr: CG</p>
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a. Recognize volume as an attribute of right rectangular prisms;

<p>Unit 1: M2–S2</p> <p>Unit 6: M3–S3-HC, S5-HC</p>	<p>Sep: CC</p> <p>Oct: CG</p> <p>Jan: SP</p> <p>Apr: CG</p>
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b. Relate volume measurement to the operations of multiplication and addition by packing right rectangular prisms and then counting the layers of standard unit cubes;

<p>Unit 1: M1–S3 M2–S2, S2-DP, S3-HC, S4-DP M3–S3-DP, S3-HC, S4-DP M4–S1-HC, S5</p> <p>Unit 3: M1–S4-DP</p> <p>Unit 5: M1–S1-DP</p> <p>Unit 6: M3–S1, S2, S2-DP, S3, S4, S5, S5-WP6C</p> <p>Unit 8: M1–S5, S5-HC, S6 M2–S1-DP, S1-HC, S2 M3–S3, S4, S4-DP, S5</p>	<p>Sep: CC</p> <p>Jan: SP</p> <p>Apr: CG</p>
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MEASUREMENT AND DATA ANALYSIS

c. Determine the volume of right rectangular prisms using the formula derived from packing right rectangular prisms and counting the layers of standard unit cubes.

Unit 1: M2–S1-HC M4–S5-HC
Unit 3: M1–S4-DP M2–S7-HC
Unit 4: M3–S7, S7-HC
Unit 5: M1–S1-DP
Unit 6: M1–S1 M3–S2, S3, S3-DP, S4, S4-DP, S5, S5-DP, S5-HC M4–S3-DP, S3-HC, S4
Unit 7: M2–S4-HC
Unit 8: M1–S4, S5, S5-HC, S6 M2–S1-DP, S1-HC, S2, S3-HC M3–S3, S4, S4-DP, S5 M4–S2-DP, S2-HC

Apr: CG

5.MDA.4 Differentiate among perimeter, area and volume and identify which application is appropriate for a given situation.

Unit 1: M2-S3, S4
Unit 5: M3-S2, S2
Unit 6: M3-S2, S3, S4

Sept: CC
Oct: CG
Feb: CG
Mar: CG
Apr: CG

MATHEMATICAL PROCESS STANDARDS

1. Make sense of problems and persevere in solving them.

- a. Relate a problem to prior knowledge.
- b. Recognize there may be multiple entry points to a problem and more than one path to a solution.
- c. Analyze what is given, what is not given, what is being asked, and what strategies are needed, and make an initial attempt to solve a problem.
- d. Evaluate the success of an approach to solve a problem and refine it if necessary.

Unit 1: M1–S2, S3, S4 M2–S1, S3, S5 M3–S1, S2 M4–S5
Unit 2: M1–S2, S5 M2–S1, S4, S5, S6 M3–S1, S3, S6 M4–S3
Unit 3: M1–S1, S2 M2–S2, S7 M3–S1, S3 M4–S2, S4
Unit 4: M1–S1, S3, S4 M2–S1, S2, S3 M3–S7 M4–S5
Unit 5: M1–S1, S3, S5 M2–S1, S2, S3, S5 M3–S1, S2, S4 M4–S3, S4, S5, S6
Unit 6: M1–S1, S2-HC, S4-DP, S4-HC, S7-DP M2–S3, S4 M3–S5 M4–S1, S2, S3, S4
Unit 7: M1–S1, S2, S4, S6 M2–S1, S5 M4–S4
Unit 8: M2–S1-HC, S4, S5 M3–S1, S2-DP M4–S3-DP

Sep: SP
Oct: CF, SP
Nov: SP
Dec: SP
Jan: SP
Feb: CF
Mar: SP
Apr: SP
May: SP

MATHEMATICAL PROCESS STANDARDS

2. Reason both contextually and abstractly.

- a. Make sense of quantities and their relationships in mathematical and real-world situations.
- b. Describe a given situation using multiple mathematical representations.
- c. Translate among multiple mathematical representations and compare the meanings each representation conveys about the situation.
- d. Connect the meaning of mathematical operations to the context of a given situation.

Unit 1: M1–S1 M2–S4 M3–S4 M4–S3, S4
Unit 2: M1–S5 M2–S2 M3–S5 M4–S2, S3
Unit 3: M1–S3 M2–S4, S5 M4–S1
Unit 4: M2–S4 M3–S7 M4–S1, S2, S3, S4
Unit 5: M1–S2, S3 M2–S4 M3–S3
Unit 6: M1–S5, S6 M3–S1, S2, S5 M4–S1, S2, S3
Unit 7: M1–S1, S2, S5 M2–S5 M3–S2, S3 M4–S4
Unit 8: M1–S2, S3, S5 M2–S1, S2, S3, S4 M3–S2, S3 M4–S1

Sep: CG, CC
Oct: CG, CF
Nov: CC, CF, PS, SP
Dec: CG, CF, SP
Feb: CG, CC
Mar: CF
Apr: CF
May: CC, CF, SP

3. Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others.

- a. Construct and justify a solution to a problem.
- b. Compare and discuss the validity of various reasoning strategies.
- c. Make conjectures and explore their validity.
- d. Reflect on and provide thoughtful responses to the reasoning of others.

Unit 1: M1–S1, S5 M2–S2, S4, S6 M3–S2
Unit 2: M1–S3 M2–S2, S3, S5 M3–S4 M4–S2, S3
Unit 3: M2–S6 M3–S2 M4–S2
Unit 4: M1–S2, S4 M2–S1 M3–S1, S5, S6 M4–S1
Unit 5: M1–S2, S4 M3–S1, S2
Unit 6: M1–S5, S6, S7 M2–S3, S4 M3–S2, S3
Unit 7: M1–S3, S5 M2–S2, S4, S6 M4–S3-DP
Unit 8: M2–S3, S5 M3–S1, S1-HC M4–S3

Sep: CG, PS
Oct: CF, SP
Nov: CG, PS, SP
Dec: SP
May: SP

4. Connect mathematical ideas and real-world situations through modeling.

- a. Identify relevant quantities and develop a model to describe their relationships.
- b. Interpret mathematical models in the context of the situation.
- c. Make assumptions and estimates to simplify complicated situations.
- d. Evaluate the reasonableness of a model and refine if necessary.

MATHEMATICAL PROCESS STANDARDS

Unit 1: M2–S6 M3–S3 M4–S1, S2

Unit 2: M1–S1, S3, S4 M2–S3 M3–S1

Unit 3: M1–S1, S4 M2–S1, S2, S7 M3–S2, S3 M4–S1, S4

Unit 4: M1–S1, S3, S4 M2–S2, S3 M3–S2, S3, S4, S6 M4–S3, S4

Unit 5: M2–S1, S2, S3 M2–S5 M3–S4 M4–S1, S2, S3, S4, S5

Unit 6: M1–S2, S3 M2–S1

Unit 7: M1–S3, S6 M2–S3, S4 M3–S4 M4–S1, S2, S3

Unit 8: M1–S2 M2–S2 M3–S3, S4, S5, S5-HC M4–S1, S3

Sep: PS, SP

Oct: CC, PS, SP

Nov: CF, PS, SP

Dec: CC, SP

Jan: CC

Feb: CF

Mar: CG, CC, SP

Apr: CG, CC, SP

May: SP

5. Use a variety of mathematical tools effectively and strategically.

a. Select and use appropriate tools when solving a mathematical problem.

b. Use technological tools and other external mathematical resources to explore and deepen understanding of concepts.

Unit 2: M1–S4 M2–S1 M3–S3

Unit 6: M1–S2, S3 M2–S1 M3–S3

Unit 7: M4–S2, S3

Unit 8: M1–S1, S1-HC, S4, S6 M2–S1, S2, S6 M3–S5, S5-HC M4–S2

Sep: CF

Oct: PS

Nov: CC, PS

Dec: PS

Jan: PS

Feb: PS

Mar: PS

Apr: PS

May: CG, PS

6. Communicate mathematically and approach mathematical situations with precision.

a. Express numerical answers with the degree of precision appropriate for the context of a situation.

b. Represent numbers in an appropriate form according to the context of the situation.

c. Use appropriate and precise mathematical language.

d. Use appropriate units, scales, and labels.

Unit 1: M1–S3 M3–S1, S4 M4–S5

Unit 2: M1–S2 M2–S4 M3–S6

Unit 3: M1–S5 M2–S4, S5

Unit 4: M3–S1 M4–S5

Unit 5: M1–S1 M4–S6

Unit 6: M1–S1, S7 M2–S3-DP M3–S4 M4–S4

Unit 7: M2–S1

Unit 8: M1–S1, S2, S3, S4, S5, S6 M2–S6 M3–S2, S4 M4–S2

Oct: CG, CC, SP

Dec: CC, CF

Jan: CC

Feb: SP

Mar: CC

Apr: CC, CF

May: CF, SP

MATHEMATICAL PROCESS STANDARDS

7. Identify and utilize structure and patterns.

- a. Recognize complex mathematical objects as being composed of more than one simple object.
- b. Recognize mathematical repetition in order to make generalizations.
- c. Look for structures to interpret meaning and develop solution strategies.

Unit 1: M2–S1, S2, S3, S4, S5, M3–S3, S4 M4–S1, S2, S3, S4
Unit 2: M1–S1 M2–S6, M2–S3 M3–S2 M4–S1
Unit 3: M1–S2, S4 M2–S1, S6 S3 M3–S1, S4 M4–S3
Unit 4: M1–S2 M2–S4 M3–S2, S3, S4, S5
Unit 5: M1–S5 M2–S4 M3–S3 M4–S1, S2, S3, S4, S5
Unit 6: M1–S4, S4-DP, S4-HC M2–S2 M3–S1
Unit 7: M3–S1, S4 M4–S1

Sep: CC, SP
Oct: CG, CC, PS, SP
Nov: CG, CC, PS
Dec: PS, SP
Jan: CG, CF, PS, SP
Feb: CG, PS, SP
Mar: CG, CF, PS
Apr: CG, PS
May: CG, PS