

Unit 4 Assessment 1: Congruence and Area

M5M1: Students will extend their understanding of area of geometric plane figures.

- a. Estimate the area of geometric plane figures.
- b. Derive the formula for the area of a parallelogram.
- c. Derive the formula for the area of a triangle.
- d. Find the areas of triangles and parallelograms using formulae.

M5G1: Students will understand congruence of geometric figures and the correspondence of their vertices, sides, and angles.

Unit 4 Assessment 2: Area of Irregular Figures

M5M1: Students will extend their understanding of area of geometric plane figures.

- d. Find the areas of triangles and parallelograms using formulae.
- f. Find the area of a polygon (regular and irregular) by dividing it into squares, rectangles, and/or triangles and find the sum of the areas of those shapes.

Unit 4: Assessment 3 – Circumference and Area of Circles

M5M1: Students will extend their understanding of perimeter to include circumference.

- a. Derive the formula for the circumference of a circle.
- b. Find the circumference of a circle using the formula and $\pi = 3.14$.
- e. Estimate the area of a circle through partitioning and tiling.
- g. Derive the formula for the area of a circle.
- h. Find the area of a circle using the formula and $\pi = 3.14$.

M5M2: Students will extend their understanding of perimeter to include circumference.

- a. Derive the formula for the circumference of a circle.
- b. Find the circumference of a circle using the formula and $\pi = 3.14$.

M5G2: Students will understand that the relationship of the circumference of a circle to its diameter is π ($\pi = 3.14$).

Unit 4: Culminating Assessment

M5M1: Students will extend their understanding of area of geometric plane figures.

- a. Estimate the area of geometric plane figures.
- b. Derive the formula for the area of a parallelogram.
- c. Derive the formula for the area of a triangle.
- d. Find the areas of triangles and parallelograms using formulae.
- e. Estimate the area of a circle through partitioning and tiling.
- f. Find the area of a polygon (regular and irregular) by dividing it into squares, rectangles, and/or triangles and find the sum of the areas of those shapes.
- g. Derive the formula for the area of a circle.
- h. Find the area of a circle using the formula and $\pi = 3.14$.

M5M2: Students will extend their understanding of perimeter to include circumference.

- a. Derive the formula for the circumference of a circle.
- b. Find the circumference of a circle using the formula and $\pi = 3.14$.

M5G1: Students will understand congruence of geometric figures and the correspondence of their vertices, sides, and angles.

M5G2: Students will understand that the relationship of the circumference of a circle to its diameter is pi ($\pi = 3.14$).

Unit 5 Assessment 1: Capacity

M5M3. Student will measure capacity with appropriately chosen units and tools.

- a. Use milliliters, liters, fluid ounces, cups, pints, quarts, and gallons to measure capacity.
- b. Compare one unit to another within a single system of measurement (e.g., 1 quart = 2 pints).

M5M4. Students will understand and compute the volume of a simple geometric solid.

- b. Understand the similarities and differences between volume and capacity.

Unit 5 Assessment 2: Volume of Geometric Solids

M5N4. Students will understand and compute the volume of a simple geometric solid

- a. Understand a cubic unit is represented by a cube in which each edge has the length of one unit
- b. Identify the units used in computing volume as cubic centimeters, cubic meters, cubic inches, cubic feet, and cubic yards
- c. Derive the formula for finding the volume of a cube and a rectangular prism using manipulatives
- d. Compute the volume of a cube and a rectangular prism using formulae
- e. Estimate the volume of a simple geometric solid
- f. Understand the similarities and difference between volume and capacity

M5M4 Unit 5 Culminating Assessment: Capacity and Volume

M5N4. Student will understand and compute the volume of a simple geometric solid

- a. Understand a cubic unit is represented by a cube in which each edge has the length of one unit
- b. Identify the units used in computing volume as cubic centimeters, cubic meters, cubic inches, cubic feet, and cubic yards
- c. Derive the formula for finding the volume of a cube and a rectangular prism using manipulative
- d. Compute the volume of a cube and a rectangular prism using formulae
- e. Estimate the volume of a simple geometric solid
- f. Understand the similarities and difference between volume and capacity