Module 5: Area, Surface Area, and Volume Problems
(Trimester 3: 25 Days)

Topic A	Area of Triangles, Quadrilaterals, and Polygons		**6.G.1**
ASSESSMENT	6.G.1	Reporting Strand: Solves real world problems involving area, surface area and volume	Report Card: 0-4
Topic B	Polygons on the Coordinate Plane		**6.G.3**
ASSESSMENT	6.G.3	Reporting Strand: Solves real world problems involving area, surface area and volume	Report Card: 0-4
Topic C	Volume of Right Rectangular Prisms		**6.G.2**
Topic D	Nets and Surface Area		**6.G.2 6.G.4**
ASSESSMENT	6.G.2 6.G.4	Reporting Strand: Solves real world problems involving area, surface area and volume	Report Card: 0-4

6.G.A.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems

6.G.A.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\ w\ h$ and $V = b\ h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

6.G.A.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.

6.G.A.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

Reporting Strand: Solves real world problems involving area, surface area and volume

CCSS	4 – Mastery	3- Proficient	2 – Basic	1 – Below Basic	0 – No Evidence
6.G.1	Can extend thinking beyond the standard, including tasks that may involve one of the following: • Designing • Connecting • Synthesizing • Applying • Justifying • Critiquing • Analyzing • Creating • Proving	Find the area of **all** of the following: • Right triangles • Non-right triangles • Parallelograms • Polygons (by composing/decomposing into triangles and other shapes) in real-world problems	Find the area of 2 -3 of the following: • Right triangles • Non-right triangles • Parallelograms • Polygons (by composing/decomposing into triangles and other shapes) **in real-world problems**	Find the area of 2 -3 of the following: • Right triangles • Non-right triangles • Parallelograms • Polygons (by composing/decomposing into triangles and other shapes)	Little evidence of reasoning or application to solve the problem Does not meet the criteria in a level 1
6.G.2		**Explain why** the volume of a right rectangular prism with fractional edge lengths is the same when: • Packing the prism with unit cubes • Multiplying the edge lengths Solve **real world** volume word problems involving rectangular prisms with fractional edge lengths using the formulas V = l × w × h and V = b × h	**Show** that the volume of a right rectangular prism with fractional edge lengths is the same when: • Packing the prism with unit cubes • Multiplying the edge lengths **Solve mathematical volume problems** involving rectangular prisms with fractional edge lengths using the formulas V = l × w × h and V = b × h	**Show** that the volume of a right rectangular prism fractional edge lengths is the same when: • Packing the prism with unit cubes • Multiplying the edge lengths	
6.G.3		**Solves real-world** problems by drawing polygons on a coordinate plane and finds side lengths, given coordinates for the vertices.	Draws polygons on a coordinate plane **and finds side lengths**, given coordinates for the vertices.	Draws polygons on a coordinate when given coordinates for the vertices.	
6.G.4		**Solve real-world problems** for three-dimensional figures by drawing the net (made of rectangles and triangles) and use the nets to find surface area.	Solve mathematical problems for three-dimensional figures **by drawing the net** (made of rectangles and triangles) and use the nets to find surface area.	Solve mathematical problems for three-dimensional figures when **given the net** of a three-dimensional figure.	

Resuelve problemas del mundo actual relacionados con área, superficie y volumen

CCSS	4 – Dominio	3- Apto	2 – Básico	1 – Por debajo de lo Básico	0 – No hay Evidencia
6.G.1	Puede pensar más allá del estándar, incluyendo tareas que puedan involucrar uno de los siguientes aspectos: • Diseñar • Conectar • Sintetizar • Aplicar • Justificar • Criticar • Analizar • Crear • Demostrar	Halla el área de **todo** lo siguiente: • Triángulos rectos • Triángulos no rectos • Paralelogramos • Polígonos (componiendo y descomponiendolos en triángulos y otras figuras) en problemas del mundo real	Halla el área en 2-3 de lo siguiente: • Triángulos rectos • Triángulos no rectos • Paralelogramos • Polígonos (componiendo y descomponiendolos en triángulos y otras figuras) **en problemas del mundo real**	Halla el área en 2-3 de lo siguiente: • Triángulos rectos • Triángulos no rectos • Paralelogramos • Polígonos (componiendo y descomponiendolos en triángulos y otras figuras).	Hay poca evidencia de razonamiento o aplicación para resolver el problema No reúne los criterios del nivel 1
6.G.2		**Explica por qué** el volumen de un prisma recto rectangular con aristas fraccionarias es lo mismo cuando: • Se llena la prisma con unidades cúbicas • Se multiplica los longitudes de las aristas Resuelve problemas verbales del **mundo real** incluyendo prismas rectos rectangulares con aristas fraccionarias usando las fórmulas V=l x w x h y V=b x h	**Muestra qué** el volumen de un prisma recto rectangular con aristas fraccionarias es lo mismo cuando: • Se llena la prisma con unidades cúbicas • Se multiplica los longitudes de las aristas Resuelve problemas matemáticos del volumen incluyendo prismas rectos rectangulares con aristas fraccionarias usando las fórmulas $V=l_x w_x h$ y $V=b_x h$	**Muestra qué** el volumen de un prisma recto rectangular con aristas fraccionarias es lo mismo cuando: • Se llena la prisma con unidades cúbicas • Se multiplica los longitudes de las aristas	
6.G.3		**Resuelve problemas del mundo real** dibujando polígonos en un plano coordinado y halla las longitudes de los lados, cuando haya coordinadas dadas para los vértices.	Dibuja polígonos en un plano coordinado y **halla las longitudes de los lados**, cuando haya coordinadas dadas para los vértices.	**Dibuja polígonos** en un plano coordinado cuando haya coordinadas dadas para los vértices.	
6.G.4		**Dibuja modelos planos** de figuras tridimensionales (hechas de rectángulos o triángulos) y usa el modelo plano para hallar el área total en **problemas del mundo real**.	**Dibuja modelos planos** de figuras tridimensionales (hechas de rectángulos o triángulos) y usa el modelo plano para hallar el área total en **un problema matemático**.	**Dados modelos planos** de figuras tridimensionales, halla el área total en un problema matemático.	