

# Unit 4: Relationships In Geometry

Content Area: **Template**  
Course(s):  
Time Period: **Full Year**  
Length: **7 weeks**  
Status: **Published**

## UNIT RATIONALE

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This unit is designed to support students in relationships in geometry. Students will understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane. They will recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes. Students will draw polygons in the coordinate plane given coordinates for the vertices and apply these techniques in the context of solving real-world and mathematical problems. Students will compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. Students will find the area of right triangles and other triangle by composing them into rectangles. Students will represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Finally, students will 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.

## ESSENTIAL QUESTIONS

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How do mathematicians locate rational ordered pairs on the coordinate plane?

How do mathematicians solve problems by graphing and identifying polygons in the coordinate plane

How do mathematicians find the perimeter and area of polygons on the coordinate plane?

How do mathematicians find the areas of parallelograms, trapezoids, triangles, and composite figures?

How do mathematicians locate rational ordered pairs on the coordinate plane.

How do mathematicians use nets to find surface area?

How do mathematicians find the volume of a rectangular prism?

How do mathematicians write equations to solve problems involving volume of rectangular prisms?

## STANDARDS

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### New Jersey Student Learning Standards: Content Area

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MA.6.RP.A.3b	Solve unit rate problems including those involving unit pricing and constant speed.
MA.6.NS.B.2	Fluently divide multi-digit numbers using the standard algorithm.
MA.6.NS.B.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

MA.6.NS.C.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
MA.6.NS.C.6b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
MA.6.NS.C.6c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
MA.6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
MA.6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.
MA.6.EE.A.2c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
MATH.6.EE.A.2.c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
MA.6.EE.B.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which $p$ , $q$ and $x$ are all nonnegative rational numbers.
MA.6.EE.B.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
MA.6.EE.C.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.
MA.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.
MA.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 $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
MA.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.
MA.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.

PFL.9.1.8.CR.2

Compare various ways to give back through strengths, passions, goals, and other personal factors.

## **NEW JERSEY STUDENT LEARNING STANDARDS: COMPUTER SCIENCE AND DESIGN THINKING**

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CS.6-8.8.1.8.DA.1

Organize and transform data collected using computational tools to make it usable for a specific purpose.

## **INTERDISCIPLINARY CONNECTIONS: NEW JERSEY STUDENT LEARNING STANDARDS FOR ELA, SOCIAL STUDIES, SCIENCE AND/OR MATHEMATICS**

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SCI.MS-PS1-2

Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.

SOC.5-8.1.1.1

Construct timelines of the events occurring during major eras including comparative events in world history for the different civilizations.

## **PRE-ASSESSMENTS**

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Module 14: Polygons on the Coordinate Plane "Are You Ready?" pg 484

Module 15: Area of Triangles and Special Quadrilaterals "Are You Ready?" pg 510

Module 16: Surface Area and Volume "Are You Ready?" pg 536

## **INSTRUCTIONAL PLAN**

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### **MODULE 14**

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# **Module 14: POLYGONS ON THE COORDINATE PLANE**

### **LESSON 14.1**

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**Student Learning Intentions (SLI) WALT: (We**

14.1 We are learning to locate rational ordered pairs on the coordinate plane.

are learning to...)	
Student Learning Strategies	Identify Ordered Pairs on a Coordinate Plane Use Directions to Find Points on a Coordinate Plane
Success Criteria	I can plot a point with rational number coordinates and locate its reflection over the x- or y-axis, and I can use absolute value to find the distance between points with same x- or y-coordinate.
Formative Assessment (drives instructional decisions)	Turn and Talk (pg 485, 487, 488) Check Understanding (pg 488) Exit Ticket (pg TM 490)
Activities and Resources	<b>Warm-Up:</b> Activate Prior Knowledge (TM 485B) <b>Mini-Lesson:</b> Spark Your Learning (pg 485) Build Your Understanding (pg 486-487) <b>Guided Practice:</b> Check Understanding (pg 488) <b>Independent Practice:</b> On Your Own (pg 490)
Suggested Modifications	Plan for Differentiated Instruction (TM pg 485C)

MA.6.NS.C.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
MA.6.NS.C.6b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
MA.6.NS.C.6c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
MA.6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
MA.6.EE.B.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real- world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
MA.6.EE.C.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.
MA.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.

## LESSON 14.2

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	14.2 We are learning to solve problems by graphing and identifying polygons in the coordinate plane.
<b>Student Learning Strategies</b>	Draw a Polygon to Represent the Garden Draw a Rectangle of Given Perimeter
<b>Success Criteria</b>	I can graph polygons on a coordinate plane, classify them, and identify a vertex that completes a specified polygon.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pg 93. 494, 495) Check Understanding (pg 496) Exit Ticket (pg TM 498)
<b>Activities and Resources</b>	<b>Warm-Up:</b> Activate Prior Knowledge (TM 493B) <b>Mini-Lesson:</b> Spark Your Learning (pg 494) Build Your Understanding (pg 495-496) <b>Guided Practice:</b> Check Understanding (pg496) <b>Independent Practice:</b> On Your Own (pg 497)
<b>Suggested Modifications</b>	Plan for Differentiated Instruction (TM pg 493C)

MA.6.NS.C.6c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
MA.6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.
MA.6.EE.C.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.
MA.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.
MA.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.

## LESSON 14.3

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	14.3 We are learning to find the perimeter and area of polygons on the coordinate plane.
<b>Student Learning Strategies</b>	Estimation Visual Model
<b>Success Criteria</b>	I can find the perimeter and area of polygons in the coordinate plane.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pg 501) Check Understanding (pg 502) Exit Ticket (pg TM 504)
<b>Activities and Resources</b>	<b>Warm-Up:</b> Activate Prior Knowledge (TM 501B) <b>Mini-Lesson:</b> Spark Your Learning (pg 501) Build Your Understanding (pg 501-502) <b>Guided Practice:</b> Check Understanding (pg 502) <b>Independent Practice:</b> On Your Own (pg 503)
<b>Suggested Modifications</b>	Plan for Differentiated Instruction (TM pg 501C)

MA.6.RP.A.3b	Solve unit rate problems including those involving unit pricing and constant speed.
MA.6.NS.C.6c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
MA.6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
MA.6.EE.B.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which $p$ , $q$ and $x$ are all nonnegative rational numbers.
MA.6.EE.B.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.
MA.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.
MA.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.

## MODULE 15

### Module 15: AREA OF TRIANGLES AND SPECIAL QUADRILATERALS

## LESSON 15.1

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	<div style="border: 1px solid black; padding: 5px;">           15.1 We are learning to find the areas of parallelograms and trapezoids.         </div>
<b>Student Learning Strategies</b>	Draw a Model to Find the Area Use a Grid to Find the Area
<b>Success Criteria</b>	I can use formulas to find areas of parallelograms and trapezoids
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pgs. 511, 513) Check Understanding ( pg. 514) Exit Ticket (TM pg. 516 )
<b>Activities and Resources</b>	<p> <b>Warm Up:</b> Activate Prior Knowledge (TM pg.511)  <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 511)            Build Understanding (p. 512-514)  <b>Guided Practice:</b> Check Understanding (pg. 514)  <b>Independent Practice:</b> On Your Own (pg. 515)            Exit Ticket (TM pg. 516)         </p> <p>           Teacher Resources Into Math Teacher Edition Module 15 &amp; Online Resources         </p>
<b>Suggested Modifications</b>	Plan For Differentiated Instruction (TM pg 511C)

MA.6.NS.C.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
MA.6.NS.C.6b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
MA.6.NS.C.6c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
MA.6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
MA.6.EE.B.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real- world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line

diagrams.

MA.6.EE.C.9

Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

MA.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.

## LESSON 15.2

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	15.2 We are learning to find the area of triangles.
<b>Student Learning Strategies</b>	Apply Area Formulas and Estimation Apply Area Formulas and Guess and Check
<b>Success Criteria</b>	I can use a formula to find the area of a triangle.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pgs. 519, 520) Check Understanding ( pg. 521) Exit Ticket (TM pg. 522)
<b>Activities and Resources</b>	<b>Warm Up:</b> Activate Prior Knowledge (TM pg. 519A) <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 369) Build Understanding (p. 520-521) <b>Guided Practice:</b> Check Understanding (pg. 521) <b>Independent Practice:</b> On Your Own (pg. 522) Exit Ticket (TM pg. 522)  Teacher Resources Into Math Teacher Edition Module 15 & Online Resources
<b>Suggested Modifications</b>	Plan For Differentiated Instruction (TM pg 519C)

MA.6.NS.C.6

Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

MA.6.NS.C.6c

Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

MA.6.EE.A.1

Write and evaluate numerical expressions involving whole-number exponents.

MA.6.EE.C.9

Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent

variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

MA.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.

MA.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.

## LESSON 15.3

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	15.3 We are learning to find the area of composite figures.
<b>Student Learning Strategies</b>	Estimation Guess and Check
<b>Success Criteria</b>	I can find the area of a composite figure by breaking it into familiar figures.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pgs. 525, 526) Check Understanding ( pg. 527) Exit Ticket (TM pg. 530)
<b>Activities and Resources</b>	<b>Warm Up:</b> Activate Prior Knowledge (TM pg. 525) <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 525) Build Understanding (p. 525-526) <b>Guided Practice:</b> Check Understanding (pg. 526) <b>Independent Practice:</b> On Your Own (pg. 527-530) Exit Ticket (TM pg. 530)  Teacher Resources Into Math Teacher Edition Module 15 & Online Resources
<b>Suggested Modifications</b>	Plan For Differentiated Instruction (TM pg 525C)

MA.6.RP.A.3c

Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

MA.6.NS.B.2

Fluently divide multi-digit numbers using the standard algorithm.

MA.6.NS.B.3

Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.

MA.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.

MA.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  $V = lwh$  and  $V = Bh$  to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

## MODULE 16

# Module 16: SURFACE AREA AND VOLUME

## LESSON 16.1

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	16.1 We are learning to use nets to find surface area.
<b>Student Learning Strategies</b>	Write Expressions for Pairs of Identical Faces Write an Expression for All Six Faces
<b>Success Criteria</b>	I can use nets to find the surface area of prisms and pyramids.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pg.537, 538, 539) Check Understanding ( pg.540) Exit Ticket (TM pg 542)
<b>Activities and Resources</b>	<b>Warm Up:</b> Activate Prior Knowledge (TM pg. 537B) <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 537D) Build Your Understanding (pg.537-538) <b>Guided Practice:</b> Check Understanding (pg.539) <b>Independent Practice:</b> On Your Own (pg.540) Exit Ticket (TM pg.542)  Teacher Resources Into Math Teacher Edition Module 16 & Online Resources
<b>Suggested Modifications</b>	Plan for Differentiated Instruction (TM pg. 537C)

MA.6.EE.C.9

Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent

variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.

MA.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.

MA.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.

MA.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.

## LESSON 16.2

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	16.2 We are learning to find the volume of a rectangular prism.
<b>Student Learning Strategies</b>	Use a Formula to Find Volume and Convert Units Use a Model to Find Volume and Convert Units
<b>Success Criteria</b>	I can use the formulas $V = \ell wh$ or $V = Bh$ to find the volumes of rectangular prisms with fractional edge lengths.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pg.545, 546, 547) Check Understanding ( pg.547) Exit Ticket (TM pg 548)
<b>Activities and Resources</b>	<b>Warm Up:</b> Activate Prior Knowledge (TM pg. 545B) <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 545D) Build Your Understanding (pg.545-547) <b>Guided Practice:</b> Check Understanding (pg.547) <b>Independent Practice:</b> On Your Own (pg.548) Exit Ticket (TM pg.548)  Teacher Resources Into Math Teacher Edition Module 16 & Online Resources
<b>Suggested Modifications</b>	Plan for Differentiated Instruction (TM pg. 545C)

MA.6.RP.A.3c

Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

MA.6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.
MA.6.EE.A.2c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).
MA.6.EE.B.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which $p$ , $q$ and $x$ are all nonnegative rational numbers.
MA.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 $V = lwh$ and $V = Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.

## LESSON 16.3

<b>Student Learning Intentions (SLI) WALT: (We are learning to...)</b>	16.3 We are learning to write equations to solve problems involving volume of rectangular prisms.
<b>Student Learning Strategies</b>	Use a Formula to Find Volume and Convert Units Use a Model to Find Volume and Convert Units
<b>Success Criteria</b>	I can use equations to solve volume problems in which the volume or an edge length of a rectangular prism is unknown.
<b>Formative Assessment (drives instructional decisions)</b>	Turn and Talk (pg.551, 552) Check Understanding ( pg.553) Exit Ticket (TM pg 404)
<b>Activities and Resources</b>	<b>Warm Up:</b> Activate Prior Knowledge (TM pg. 551B) <b>Mini-Lesson:</b> Spark Your Learning (TM pg. 551D) Build Your Understanding (pg551-552) <b>Guided Practice:</b> Check Understanding (pg.553) <b>Independent Practice:</b> On Your Own (pg.554) Exit Ticket (TM pg.554)  Teacher Resources Into Math Teacher Edition Module 16 & Online Resources
<b>Suggested Modifications</b>	Plan for Differentiated Instruction (TM pg. 551C)

MA.6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.
MATH.6.EE.A.2.c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including

those involving whole number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

MA.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.

MA.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  $V = lwh$  and  $V = Bh$  to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.