

**O'MALEY INNOVATION MIDDLE SCHOOL - SCOPE & SEQUENCE CHART: INTENDED UNITS OF STUDY, 2016-2017**

**CONTENT AREA: Math - GRADE LEVEL: 7**

<b>UNIT</b>	<b>APPROXIMATE TIME FRAME</b>	<b>TEXT(S)/RESOURCES</b>	<b>TARGETED UNDERSTANDING (PURPOSE)</b>	<b>CONTENT STANDARD(S) (CCSS for Mass.)</b>
Integers	<b>TERM 1</b>  <b>16 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Use and justify rules for addition, subtraction, multiplication, and division of integers.</li> <li>• Find the absolute values of integers.</li> <li>• Add, subtract, multiply, and divide integers.</li> </ul>	6.EE.3 7.NS.1, 7.NS.2, 7.NS.3 7.NS.1a, 7.NS.1b, 7.NS.1c, 7.NS.1d, 7.NS.2a, 7.NS.2b
Rational Numbers	<b>TERM 1</b>  <b>12 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Add, subtract, multiply, and divide rational numbers.</li> <li>• Apply properties of operations as strategies to perform operations with rational numbers.</li> <li>• Convert a rational number to a decimal using long division.</li> </ul>	4.NF.6 5.NF.1, 5.NF.4 6.NS.1 7.NS.1a, 7.NS.1b, 7.NS.1c, 7.NS.1d, 7.NS.2a, 7.NS.2b, 7.NS.2c, 7.NS.2d 7.NS.3
Expressions & Equations	<b>TERM 1</b>  <b>15 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Add, subtract, factor, and expand linear expressions with rational coefficients.</li> <li>• Understand that rewriting expressions in different forms can show how the quantities are related.</li> <li>• Write, graph, and solve one-step equations (includes negative numbers).</li> <li>• Solve two-step equations.</li> <li>• Compare algebraic solutions to arithmetic solutions.</li> </ul>	6.EE.2a 7.NS.3 7.EE.1, 7.EE.2, 7.EE.4, 7.EE.4a
Inequalities	<b>TERM 2</b>  <b>12 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Solve one-step inequalities involving integers and rational numbers.</li> <li>• Solve two-step inequalities.</li> </ul>	6.EE.8, 6.NS.7a 7.EE.4b

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Ratios & Proportions	<b>TERM 2</b>  <b>18 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Determine rates from words, tables, and graphs</li> <li>• Use multiplication and division, and the Cross Products Property to decide if two ratios are equal</li> <li>• Graph proportional relationships</li> <li>• Write and solve a proportion using mental math</li> <li>• Define slope and determine the slope of a line from its graph</li> <li>• Use a formal definition of direct variation</li> </ul>	4.NF.1, 6.EE.7 7.RP.1, 7.RP.3 7.RP.2a, 7.RP.2b, 7.RP.2c, 7.RP.2d
Percents	<b>TERM 2</b>  <b>18 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Compare fractions, decimals, and percents.</li> <li>• Use proportionality to solve percent problems.</li> <li>• Use the percent equation.</li> <li>• Solve percent problems involving percents of increase and decrease, and simple interest.</li> </ul>	6.RP.3c 7.EE.3 7.RP.3
Constructions & Scale Drawings	<b>TERM 3</b>  <b>18 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Use supplementary, complementary, vertical, and adjacent angles.</li> <li>• Draw geometric shapes with given conditions, focusing on triangles and quadrilaterals.</li> <li>• Reproduce a scale drawing at a different scale.</li> <li>• Represent proportional relationships with equations.</li> <li>• Use proportionality to solve ratio problems. • Use scale drawings to compute actual lengths and areas.</li> </ul>	4.MD.6, 4.G.1 7.G.1, 7.G.2, 7.G.5
Circles	<b>TERM 3</b>  <b>13 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Understand pi and its estimates.</li> <li>• Use values of pi to estimate and calculate the circumference and area of circles.</li> <li>• Find perimeters and areas of composite two-dimensional figures, including semi-circles.</li> </ul>	4.G.2, 6.EE.1 7.G.4, 7.G.6

UNIT	APPROXIMATE TIME FRAME	TEXT(S)/RESOURCES	TARGETED UNDERSTANDING (PURPOSE)	CONTENT STANDARD(S) (CCSS for Mass.)
Surface Area & Volume	<b>TERM 4</b>  <b>16 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Solve real-world problems involving surface areas and volumes of objects composed of prisms, pyramids, and cylinders.</li> <li>• Describe the cross sections that result from slicing three-dimensional figures.</li> </ul>	4.MD.3, 5.NF.4b, 6.G.1 7.G.3, 7.G.4, 7.G.6
Probability & Statistics	<b>TERM 4</b>  <b>21 days</b>	Big Ideas! Math	<ul style="list-style-type: none"> <li>• Understand representative samples (random sampling) and populations.</li> <li>• Use samples to draw inferences about populations.</li> <li>• Compare two populations from random samples using measures of center and variability.</li> <li>• Understand that probability is the likelihood of an event occurring, expressed as a number from 0 to 1.</li> <li>• Develop probability models and use them to find probabilities.</li> <li>• Find the probabilities of compound events.</li> </ul>	6.RP.1, 7.SP.1, 7.SP.2, 7.SP.3, 7.SP.4, 7.SP.5, 7.SP.6, 7.SP.7a, 7.SP.7b, 7.SP.8a, 7.SP.8b, 7.SP.8c

Total: 159 days  
Variance: 21 days



