

2019-2020 Conrady Junior High 7th Grade Math Curriculum Map

Unit # and Name	Common Core State Standards	Open Up Resources Unit Description	Estimated Time
#1 Scale Drawings	7.G.1 (Scale Drawing)	Unit 1: Scale Drawings In this unit, students study scaled copies of pictures and plane figures, then apply what they have learned to scale drawings, e.g., maps and floor plans. This provides geometric preparation for grade 7 work on proportional relationships as well as grade 8 work on dilations and similarity.	15 days (Sept 11)
#2 Introduction to Proportional Relationships	7.RP.1 (Unit rates) 7.RP.2a,b,c,d (Proportional Relationships) 7.RP.3-1 (Solve multistep ratio problems) 7.G.1 (Scale Drawing) 7.NS.3 (Solve real-world problems with rational numbers) 7.C.1.1; 7.D.2; 7.D.4; 8.D.2	Unit 2: Proportional Relationships and Percents Proportional Relationships Scale Drawing In this unit, students develop the idea of a proportional relationship out of the grade 6 idea of equivalent ratios. Proportional relationships prepare the way for the study of linear functions in grade 8.	19 days (Oct 8)
#3 Percents	7.RP.3-2 (Solve multi-step percent problems) 7.NS.3 (Solve real-world problems with rational numbers) 7.EE.2 (Understand rewriting expressions as a strategy for solving in context) 7.C.1.1; 7.D.2; 7.D.4; 8.D.2 7.C.4; 7.C.6.1; 7.C.6.2; 7.C.7.1; 7.D.2; 7.D.3; 7.D.4; 8.C.6; 8.D.2	Unit 3: Proportional Relationships and Percents Students began their work with ratios, rates, and unit rates in grade 6, representing them with expressions, tape diagrams, double number line diagrams, and tables. They used these to reason about situations involving color mixtures, recipes, unit price, discounts, constant speed, and measurement conversions. They extended their understanding of rates to include percentages as rates per 100, reasoning about situations involving whole-number percentages. They did not use the terms "proportion" and "proportional relationship" in grade 6.	20 days (Nov 8)
#4 Rational Numbers and Arithmetic Operations	7.NS.1a, 1b-1, 1b-2, 1c-1, 1c-2, 1d (Add and subtract rational numbers) 7.NS.2a-1, 2a-2, 2b-1, 2b-2, 2c, 2d (Multiply and divide rational numbers) 7.NS.3 (Solve real-world problems with rational numbers) 7.C.1.1; 7.C.2; 7.C.3; 7.C.7.2; 7.C.7.3; 7.D.1; 8.C.6 7.C.1.1; 7.C.7.2; 8.C.6	Unit 4: Integers In grade 6, students learned that the rational numbers comprise positive and negative fractions. They plotted rational numbers on the number line and plotted pairs of rational numbers in the coordinate plane. In this unit, students extend the operations of addition, subtraction, multiplication, and division from fractions to all rational numbers, written as decimals or in the form ab .	21 days (Dec 14)
#5 Expressions and Equations	7.EE.1 (Add, subtract, factor, expand linear expressions) 7.EE.2 (Understand rewriting expressions as a strategy for solving in context) 7.EE.3 (Solve multi-step real-world problems and convert between forms in context) 7.NS.3 (Solve real-world problems with rational numbers) 7.EE.4a-1, 4a-2 (Solve real-world problems involving equations) 7.G.5 (Solve equations for unknown angle) 7.C.5; 7.D.1; 7.D.3; 7.C.1.2; 7.C.7.4; 8.C.6; 8.D.2	Unit 5: Expressions & Solving/Writing Equations Equivalent Expressions - Factor & Expand Multi-Step real-life problems In this unit, students solve equations of the forms $px + q = r$ and $p(x+q) = r$, where p , q , and r are rational numbers.	27 days (Jan 28)

<p>#6 Expressions, and Inequalities</p>	<p>7.EE.1 (Add, subtract, factor, expand linear expressions) 7.EE.2 (Understand rewriting expressions as a strategy for solving in context) 7.EE.3 (Solve multi-step real-world problems and convert between forms in context) 7.EE.4b-1, 4b-2 (Solve real-world problems involving inequalities) 7.NS.3 (Solve real-world problems with rational numbers)</p> <p>7.C.1.2; 7.C.7.4; 8.C.6; 8.D.2</p>	<p>Unit 6: Expressions Solving/Graphing Inequalities Equivalent Expressions - Factor & Expand Multi-Step real-life problems</p> <p>In this unit, students solve related inequalities, e.g., those of the form $px + q > r$ and $px + q \geq r$, where p, q, and r are rational numbers.</p>	<p>27 days (Feb 11)</p>
<p>#7 Angles, Triangles and Circles</p>	<p>7.G.2 (Draw geometric shapes with given conditions) 7.G.3 (Describe 2-D figures resulting from slicing 3-D figures) 7.G.4-1, 4-2 (Area and circumference of a circle) 7.G.5 (Solve equations for unknown angle) 7.G.6 (Solve real-world problems involving area, volume and surface area)</p> <p>8.D.2</p>	<p>Unit 7: Geometry Angle Relationships (6 Days) Triangles and Circles(7 Days) 3D Geometry (8 Days)</p> <p>In this unit, students investigate whether sets of angle and side length measurements determine unique triangles or multiple triangles, or fail to determine triangles. Students also study and apply angle relationships, learning to understand and use the terms "complementary," "supplementary," "vertical angles," and "unique".</p>	<p>23 days (6A Angle Relationships Feb 24)</p> <p>(6B 2D Geometry March 6)</p> <p>(6C 3D Geometry March 18)</p>
<p>#8 Probability and Sampling</p>	<p>7.SP.1 (Sample populations) 7.SP.2 (Interpret random sample data) 7.SP.3 (Visual overlap of data distributions) 7.SP.4 (Measures of center and variability with two populations)</p> <p>8.D.2</p> <p>7.SP.5 (Probability of chance event) 7.SP.6 (Collect data on chance process) 7.SP.7a, 7b (Develop probability model) 7.SP.8a, 8b, 8c (Find probabilities of compound events)</p>	<p>Unit 8: Probability and Statistics In this unit, students understand and use the terms "event," "sample space," "outcome," "chance experiment," "probability," "simulation," "random," "sample," "random sample," "representative sample," "overrepresented," "underrepresented," "population," and "proportion."</p>	<p>23 days</p>

Priority Standards = Approximately 70%

Supporting Standards = Approximately 20%

Additional Standards = Approximately 10%