

# 7<sup>th</sup> Grade Math Curriculum

Mr. Holman

*Updated April 2019*

Month	Cluster	Topic	Lessons	Assessments
August/September	Major: 7.NS.A	<u>Topic 1</u> Integers and Rational Numbers Lessons 1-10  <u>Mathematical Practices</u> 1,2,3,4,5,6,7,8	<ul style="list-style-type: none"> <li>- Understand Integers and Absolute Value (7.NS.A.1a)</li> <li>- Understand Rational Numbers (7.NS.A.2d)</li> <li>- Add Integers (7.NS.A.1b, 7.NS.A.1d)</li> <li>- Subtract Integers (7.NS.A.1c, 7.NS.A.1d)</li> <li>- Add and Subtract Rational Numbers (7.NS.A.1b, 7.NS.A.1c, 7.NS.A.1d)</li> <li>- Multiply Integers (7.NS.A.2a, 7.NS.A.2c)</li> <li>- Multiply Rational Numbers (7.NS.A.2a, 7.NS.A.2c)</li> <li>- Divide Integers (7.NS.A.2b, 7.NS.A.2c)</li> <li>- Divide Rational Numbers (7.NS.A.2b, 7.NS.A.2c)</li> <li>- Solve Problems Involving Rational Numbers (7.NS.A.3, 7.EE.B.3)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- Mid-Topic Checkpoint and Performance Task</li> <li>- 3-Act Math Modeling: Win Some, Lose Some</li> <li>- STEM Project - How Cold is Too Cold?</li> <li>- Topic Assessment</li> </ul>

# 7<sup>th</sup> Grade Math Curriculum

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Month	Cluster	Topic	Lessons	Assessments
October	Major: 7.RP.A	<u>Topic 2</u> Analyze and Use Proportional Relationships Lessons 1-6  <u>Mathematical Practices</u> 1,2,3,4,5,6,7,8	<ul style="list-style-type: none"> <li>- Connect Ratios, Rates, and Unit Rates (7.RP.A.1, 7.RP.A.3)</li> <li>- Determine Unit Rates with Ratios of Fractions (7.RP.A.1, 7.RP.A.3)</li> <li>- Understand Proportional Relationships: Equivalent Ratios (7.RP.A.2a)</li> <li>- Describe Proportional Relationships: Constant of Proportionality (7.RP.A.2b, 7.RP.A.2c)</li> <li>- Graph Proportional Relationships (7.RP.A.2a, 7.RP.A.2b, 7.RP.A.2d)</li> <li>- Apply Proportional Reasoning to Solve Problems (7.RP.A.2, 7.RP.A.3)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- Mid-Topic Checkpoint and Performance Task</li> <li>- 3-Act Math Modeling: Mixing It Up</li> <li>- STEM Project - An Essential Resource</li> <li>- Topic Assessment</li> <li>- Cumulative/Benchmark Assessment (Topics 1-2)</li> </ul>

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Month	Cluster	Topic	Lessons	Assessments
November/ December	Major:  7.RP.A	<u>Topic 3</u> Analyze and Solve Percent Problems Lessons 1-6  <u>Mathematical Practices</u> 1,2,3,4,6,7,8	<ul style="list-style-type: none"><li>- Analyze Percents of Numbers (7.RP.A.3)</li><li>- Connect Percent and Proportion (7.RP.A.2c, 7.RP.A.3)</li><li>- Represent and Use the Percent Equation (7.RP.A.2c, 7.RP.A.3)</li><li>- Solve Percent Change and Percent Error Problems (7.RP.A.3)</li><li>- Solve MArkup and Markdown Problems (7.RP.A.3)</li><li>- Solve Simple Interest Problems (7.RP.A.3)</li></ul>	<ul style="list-style-type: none"><li>- Pre-Topic Assessment</li><li>- Lesson Quizzes</li><li>- Mid-Topic Checkpoint and Performance Task</li><li>- 3-Act Math Modeling: The Smart Shopper</li><li>- STEM Project - Analyze Activity Tracker Data</li><li>- Topic Assessment</li></ul>

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Month	Cluster	Topic	Lessons	Assessments
January/February	Major: 7.EE.A	<p>Topic 4 Generate Equivalent Expressions Lessons 1-8</p> <p><u>Mathematical Practices</u> 1,2,3,4,6,7,8</p>	<ul style="list-style-type: none"> <li>- Write and Evaluate Algebraic Expressions (7.EE.B.3, 7.EE.B.4a)</li> <li>- Generate Equivalent Expressions (7.EE.A.1)</li> <li>- Simplify Expressions (7.EE.A.1)</li> <li>- Expand Expressions (7.EE.A.1, 7.EE.A.2)</li> <li>- Factor Expressions (7.EE.A.1, 7.EE.A.2)</li> <li>- Add Expressions (7.EE.A.1, 7.EE.A.2)</li> <li>- Subtract Expressions (7.EE.A.1, 7.EE.A.2)</li> <li>- Analyze Equivalent Expressions (7.EE.A.2)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- Mid-Topic Checkpoint and Performance Task</li> <li>- 3-Act Math Modeling: I've Got You Covered</li> <li>- STEM Project - Analyze Activity Tracker Data (Cont.)</li> <li>- Topic Assessment</li> <li>- Cumulative/Benchmark Assessment (Topics 1-4)</li> </ul>

# 7<sup>th</sup> Grade Math Curriculum

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Month	Cluster	Topic	Lessons	Assessments
February/March	Major: 7.EE.B	<u>Topic 5</u> Solve Problems Using Equations and Inequalities Lessons 1-7  <u>Mathematical Practices</u> 1,2,3,4,5,6,7	<ul style="list-style-type: none"> <li>- Write Two-Step Equations (7.EE.B.4)</li> <li>- Solve Two-Step Equations (7.EE.B.3, 7.EE.B.4a)</li> <li>- Solve Equations Using the Distributive Property (7.EE.B.3, 7.EE.B.4a)</li> <li>- Solve Inequalities Using Addition or Subtraction (7.EE.B.4b)</li> <li>- Solve Inequalities Using Multiplication or Division (7.EE.B.4b)</li> <li>- Solve Two-Step Inequalities (7.EE.B.4b)</li> <li>- Solve Multi-Step Inequalities (7.EE.B.4b)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- Mid-Topic Checkpoint and Performance Task</li> <li>- 3-Act Math Modeling: Digital Downloads</li> <li>- STEM Project - Water is Life!</li> <li>- Topic Assessment</li> <li>- Cumulative/Benchmark Assessment (Topics 1-5)</li> </ul>

# 7<sup>th</sup> Grade Math Curriculum

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Month	Cluster	Topic	Lessons	Assessments
April/May	Supporting:  7.SP.A 7.SP.B 7.SP.C	<u>Topic 6</u> Use Sampling to Draw Inferences About Populations Lessons 2 & 3  <u>Topic 7</u> Probability Lessons 1-7  <u>Mathematical Practices</u> 1,2,3,4,5,6,7,8	<ul style="list-style-type: none"> <li>- Draw Inferences from Data (7.SP.A.1, 7.SP.A.2, 7.RP.A.2c)</li> <li>- Make Comparative Inferences About Populations (7.SP.B.3, 7.SP.B.4)</li> <li>- Understand Likelihood and Probability (7.SP.C.5, 7.EE.B.3)</li> <li>- Understand Theoretical Probability (7.SP.C.6, 7.RP.A.2c)</li> <li>- Understand Experimental Probability (7.SP.C.6, 7.SP.C.7)</li> <li>- Use Probability Models (7.SP.C.7a, 7.SP.C.7b, 7.EE.B.3)</li> <li>- Determine Outcomes of Compound Events (7.SP.C.8a, 7.SP.C.8b)</li> <li>- Find Probabilities of Compound Events (7.SP.C.8a, 7.EE.B.3)</li> <li>- Simulate Compound Events (7.SP.C.8c)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- Mid-Topic Checkpoint and Performance Task</li> <li>- 3-Act Math Modeling: Photo Finish</li> <li>- Topic Assessment</li> </ul>

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Month	Cluster	Topic	Lessons	Assessments
May	Additional:  7.G.A 7.G.B	<u>Topic 8</u> Solve Problems Involving Geometry Lessons 4-6, 8-9  <u>Mathematical Practices</u> 1,2,3,4,6,7,8	<ul style="list-style-type: none"> <li>- Solve Problems Using Angle Relationships (7.G.B.5)</li> <li>- Solve Problems Involving Circumference of a Circle (7.G.A.2, 7.EE.B.4a)</li> <li>- Solve Problems Involving Area of a Circle (7.G.B.4, 7.EE.B.3, 7.EE.B.4a)</li> <li>- Solve Problems Involving Surface Area (7.G.B.6, 7.NS.A.3, 7.EE.B.3, 7.EE.B.4a)</li> <li>- Solve Problems Involving Volume (7.G.B.6, 7.NS.A.3, 7.EE.B.3, 7.EE.B.4a)</li> </ul>	<ul style="list-style-type: none"> <li>- Pre-Topic Assessment</li> <li>- Lesson Quizzes</li> <li>- 3-Act Math Modeling: Whole Lotta Dough</li> <li>- Assessment over Topics 4-6, 8-9</li> </ul>