GRADE and SUBJECT
11th and 12th Grade Trade Math (Quarter 1 and 2) / Agriculture Math (Quarter 3 and 4)

| Time/Month | Standard(s) | Content | Skills |
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| September (week 1) September (week 3) $11 \text { days }$ | $\begin{aligned} & \text { N - RN. } 3 \\ & \text { F - IF. } 3 \\ & \text { F - BF. } 2 \end{aligned}$ <br> Mathematical <br> Practices 1, 2, 3 | Unit 1: Digits and Numbers | - Define different types of real numbers <br> - Identify prime numbers <br> - Classify a number as a natural, whole, integer, rational, or irrational number <br> - Identify the least common multiple of a set of numbers <br> - Identify the greatest common factor of a set of numbers <br> - Explain the difference between an arithmetic and a geometric sequence <br> - Classify a set of numbers as an arithmetic or geometric sequence <br> - Compute the first five terms of a sequence |
| September (week 4) October (week 2) <br> 13 days | N-Q. 3 <br> 7.NS. 1 <br> 7.NS. 2 <br> Mathematical <br> Practices 1, 5, 6 | Unit 2: Whole Numbers and Decimals | - Compute basic arithmetical operations without using a calculator <br> - Multiply and divide decimals without using a calculator (including by powers of 10) <br> - Determine the number of significant figures in a given number <br> - Compute the sum, difference, product, and quotient of two or more measurement numbers <br> - Round a given number to the appropriate place value <br> - Convert decimals to fractions |
| October (week 2) October (week3) <br> 5 days | 7.NS. 1 <br> 7.NS. 2 <br> 7.EE. 1 <br> Mathematical <br> Practices 1, 7 | Unit 3: Signed Numbers | - Add, subtract, multiply, and divide signed numbers without a calculator <br> - Apply order of operations to evaluate expressions |
| October (week 4) November (week 2) 15 days | 7.NS. 1 <br> 7.NS. 2 <br> A - SSE. 3 <br> Mathematical <br> Practices 1, 4, 5, 7 | Unit 4: Ruler Fractions and Mixed Numbers | - Identify and write fractions <br> - Rewrite improper fractions as mixed numbers and vice versa <br> - Reduce fractions to lowest terms <br> - Create common denominators <br> - Increase and reduce fractions to designated denominators <br> - Add and subtract fractions with common denominators <br> - Add and subtract fractions with unlike denominators <br> - Subtract fractions with common and unlike denominators when borrowing is necessary <br> - Add and subtract feet, inches and fractions of inches |

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|  |  |  | - Multiply and divide fractions and mixed numbers <br> - Multiply and divide feet, inches and fractions of inches |
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| November (week 3) - <br> November (week 4) <br> 6 days | 7.RP. 2 <br> 7.RP. 3 <br> A - REI. 1 <br> Mathematical <br> Practices 1, 2, 4 | Unit 5: Ratios and Proportions | - Write a ratio <br> - Simplify ratios in context of a real world situation <br> - Solve a direct proportion <br> - Determine if two ratios are equivalent <br> - Set up a proportion to solve a real world problem <br> - Solve inverse proportion problems |
| November (week 4) - <br> December (week 1 <br> 10 days | A - CED. 1 <br> 7.NS.2d <br> Mathematical <br> Practices 1, 4, 6, 7 | Unit 6: Percents | - Convert between percents, decimals, and fractions <br> - Use the percent proportion to solve for the unknown percent, part, or whole <br> - Define terms associated with real-world applications of percents (gratuity, discount, markup, commission, sales tax, sale price, total cost, interest, interest rate, principle) <br> - Apply concepts of percents and the percent proportion to solve real-world problems |
| December (week 2) - <br> December (week 3 <br> 10 days | $\begin{aligned} & N-Q .1 \\ & N-Q .2 \end{aligned}$ <br> Mathematical Practices 1, 4, 6, 7 | Unit 7: Dimensional Analysis | - Convert between different units of the Engligh Measurement System <br> - Convert between different units of the Metric Measurement System <br> - Convert units between the English and Metric Systems <br> - Apply unit conversions to solve real-world problems |
| January (week 2) January (week 3) 8 days | G - SRT. 8 <br> G - GMD. 3 <br> G - MG. 1 <br> G - MG. 3 <br> Mathematical <br> Practices 1, 4, 5, <br> 6 | Unit 8: Geometry Review and Graphic Mathematics | - Define terms associated with points, lines, and angles <br> - Add and subtract angles measures, specific to the second <br> - Determine the missing angle of a given diagram <br> - Use the Pythagorean Theorem to solve for the missing side of any right triangle <br> - Calculate the perimeter, circumference, and area of a given 2dimensional diagram <br> - Calculate the volume of a given 3-dimensional figure <br> - Apply concepts of geometry to solve real-world problems |

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| January (week 3) - <br> January (week 4) <br> 4 days |  | Trade Math Final Exam Review |  |
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| January (week 4) 3 days |  | Trade Math Final Exam |  |
| January (week 5) - <br> February (week 1) <br> 10 days | 7.RP. 2 <br> 7.RP. 3 <br> A - REI. 1 <br> Mathematical <br> Practices 1, 2, 4, <br> 5 | Agriculture Math Unit 1: Ratios and Proportions Review | - Define ratio and proportion <br> - Apply ratios and proportions to solve real-world problems in agriculture |
| February (week 2) <br> February (week 4) <br> 10 days | A - CED. 1 <br> 7.NS.2d <br> Mathematical <br> Practices 1, 2, 3, <br> 4, 5 | Unit 2: Percents and Applications | - Review percent proportion <br> - Apply percents to real world problems in agriculture |
| March (week 1) - <br> March (week 2) <br> 10 days | A - CED. 1 <br> A - CED. 2 <br> A - CED. 3 <br> N-Q. 1 <br> N-Q. 2 <br> Mathematical <br> Practices 1, 2, 3, <br> 4, 5 | Unit 3: Measurement | - Convert between units of measurement review <br> - Identify what units to use when measuring different items <br> - Use multiple tools to measure different items |
| March (week 3) - <br> April (week 1) <br> 15 days | $\begin{aligned} & \text { G - CO. } 12 \\ & \text { G - CO. } 13 \\ & \text { G - SRT. } 5 \\ & \text { G - GMD. } 3 \\ & \text { G - MG. } 1 \\ & \text { G - MG. } 2 \end{aligned}$ | Unit 4: Geometry | - Apply the Pythagorean theorem to real world problems <br> - Calculate the perimeter, circumference, and area of a given 2dimensional diagram <br> - Calculate the volume of a given 3-dimensional figure <br> - Apply concepts of geometry to solve real-world problems in agriculture |

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|  | $\text { G - MG. } 3$ <br> Mathematical Practices 1, 2, 3, 4, 5 |  | - Design a structure that will be utilized in the field of agriculture of your choice <br> - Build an actual or a scale structure using the design |
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| April (week 3) - April (week 5) <br> 10 days | $\begin{aligned} & \hline \text { F - IF. } 1 \\ & \text { F IF. IF. } \\ & \text { F IF. } 4 \\ & \text { F - IF. } 5 \\ & \text { F IF. } 6 \\ & \text { F - IF. } 7 \\ & \text { F - IF. } 9 \\ & \text { F - BF. } 1 \\ & \text { F - LE. } 1 \end{aligned}$ <br> Mathematical Practices 1, 2, 3, 4, 5 | Unit 5: Functions | - Define and identify a function <br> - Explain function notation <br> - Build a function that models a relationship between two quantitites <br> - Represent functions using graphs, charts, tables, and equations <br> - Apply functions to real world problems in agriculture |
| April (week 5) - May (week 5) <br> 20 days | $\begin{aligned} & \text { S - ID. } 1 \text { through } \\ & \text { S - ID. } 9 \\ & \text { S - IC. } 1 \\ & \text { S IC. } 5 \\ & \text { S - IC. } 6 \\ & \text { Mathematical } \\ & \text { Practices 1, 2, 3, } \\ & 4,5 \end{aligned}$ | Unit 6: Statistics | - Interpret information from tables, graphs, and charts <br> - Analyze trends in agriculture and discuss effects on today and the future <br> - Develop and implement an experiment in the field of your choice <br> - Use statistical measures to analyze the results of experiments |
| June (week 1) - June (week 2) <br> 7 days |  | Ag Math Final Exam Review |  |
| June (week 2) - June (week 3) <br> 5 days |  | Ag Math Final Exam | - |

