

Wilson Area School District Planned Course Guide

Title of planned course: Real World Math Applications

Subject Area: Math

Grade Level: 9,10,11,12

Course Description: This is a functional skills class focusing on basic math skills. This course is geared toward students who will not be taking the Keystone Exams. Units may include addition and subtraction, multiplication and division, applied word problems, real world applications of math skills, measurement, fractions, money, financial literacy, and ratios/proportions. Students will be graded on classwork, assessments, fast facts, and projects.

Time/Credit for this Course: One Full Academic Year

Curriculum Writing Committee: Bryanna Checo

Curriculum Map

August/September:

- Calculator strategies & Review of Addition/Subtraction
- Multiplication & Division Strategies of Whole Numbers

October:

- Multiplication & Division Strategies of Whole Numbers

November:

- Multi-digit Multiplication & Division Strategies of Whole Numbers/Decimals/Fractions

December:

- Multi-digit Multiplication & Division Strategies of Whole Numbers/Decimals/Fractions

January:

- Mixed Multiplication & Division Word Problem Applications

February:

- Ratios, Rates, & Proportions

March:

- Percentages & Financial Literacy

April:

- Percentages & Financial Literacy

May:

- Measurement & Unit Conversions

****IEP Goal Time to be implemented throughout the year****

Wilson Area School District Planned Course Materials

Course Title: Real World Math Applications

Teacher Resources:

- Teacher-created resources
- Google Classroom
- Calculators
- EdPuzzle (edpuzzle.com)
- Study Island (studyisland.com)
- Blooket (blooket.com)
- Kahoot (kahoot.com)
- Common Core Sheets (commoncoresheets.com)

Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Basic Facts Review, Multiplication/Division Strategies

Time Frame: 5 weeks

Common Core Standards: CC.2.1.6.A, CC.2.1.6.B, CC.2.2.4.A.1, CC.2.4.6.A

Essential Content/Objectives: At the end of this unit, students will be able to:

- Solve basic addition and subtraction problems without a calculator
- Solve basic multiplication and division problems with a calculator
- Identify and classify different properties of multiplication and division
- Define and understand multiplication and division
- Visualize and understand the reasoning behind multiplication and division

Core Activities: Students will complete/participate in the following:

- Daily warm-ups and exit tickets
- Fast fact checks
- Guided and independent practice
- Online activities (Study Island, Blooket, etc)
- Peer activities
- Rotation activities
- Spiral Review

Extensions:

- Challenging online activities
- Model how to complete problems with the class

Remediation:

- Additional exercises
- Study Island/Khan Academy
- Review activities
- Teacher/Peer-tutoring

Instructional Methods:

- Explicit instruction
- Facilitated discussion and group work

Materials & Resources:

- Warm-up/Exit sheet
- Notes and examples
- Handouts/worksheets
- Activity supplies
- Calculators

Assessments:

- Fast fact sheets
- Warm-up/Exit tickets
- Teacher observations
- Quizzes/ Tests
- Assignments
- Projects

Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Multi-digit Multiplication and Division of Whole Numbers, Decimals, and Fractions

Time Frame: 8 weeks

Common Core Standards: CC.2.1.6.A, CC.2.1.6.B, CC.2.4.6.A

Essential Content/Objectives: At the end of this unit, students will be able to:

- Solve multi-digit multiplication and division problems using a calculator
- Identify, classify, explain, and utilize multi-digit multiplication strategies (lattice method, area model, standard algorithm)
- Identify, classify, explain, and utilize long division strategies (DMSB)
- Apply multi-digit multiplication and division strategies to word problems

Core Activities: Students will complete/participate in the following:

- Daily warm-ups and exit tickets
- Fast fact checks
- Guided and independent practice
- Online activities (Study Island, Blooket, etc)
- Peer activities
- Rotation activities
- Spiral Review

Extensions:

- Challenging online activities on Study Island
- Model how to complete problems with the class

Remediation:

- Additional exercises
- Study Island/Khan Academy
- Review activities
- Teacher/Peer-tutoring

Instructional Methods:

- Explicit instruction
- Facilitated discussion and group work

Materials & Resources:

- Warm-up/Exit ticket
- Notes and examples
- Handouts/worksheets
- Activity supplies
- Calculators

Assessments:

- Fast fact sheets
- Warm-up/Exit ticket
- Teacher observations
- Quizzes/ Tests
- Assignments
- Projects

Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Mixed Multiplication & Division Word Problem Applications

Time Frame: 4 weeks

Common Core Standards: CC.2.1.6.A, CC.2.1.6.B, CC.2.4.6.A

Essential Content/Objectives: At the end of this unit, students will be able to:

- Apply multiplication and division strategies to solve word problems
- Understand and identify what needs to be solved in a word problem
- Create real-world word problems

Core Activities: Students will complete/participate in the following:

- Daily warm-ups and exit ticket
- Fast fact checks
- Guided and independent practice
- Online activities (Study Island, Blooket, etc)
- Peer activities
- Rotation activities
- Spiral Review

Extensions:

- Challenging online activities on Study Island
- Model how to complete problems with the class

Remediation:

- Additional exercises
- Study Island/Khan Academy
- Review activities
- Teacher/Peer-tutoring

Instructional Methods:

- Explicit instruction
- Facilitated discussion and group work

Materials & Resources:

- Warm-up/Exit ticket
- Notes and examples
- Handouts/worksheets
- Activity supplies
- Calculators

Assessments:

- Fast fact sheets
- Warm-up/Exit ticket
- Teacher observations
- Quizzes/ Tests
- Assignments
- Projects

Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Ratios, Rates, & Proportions

Time Frame: 4 weeks

Common Core Standards: CC.2.2.6.A, CC.2.4.6.A

Essential Content/Objectives: At the end of this unit, students will be able to:

- Identify and define ratios, rates, and proportions
- Compare and contrast ratios/rates/proportions
- Use multiplication and division to solve problems involving ratios and rates (e.g., speed, price per unit).
- Solve real-world problems involving proportions by setting up and solving equations.

Core Activities: Students will complete/participate in the following:

- Daily warm-ups and exit ticket
- Fast fact checks
- Guided and independent practice
- Online activities (Study Island, Blooket, etc)
- Peer activities
- Rotation activities
- Spiral Review

Extensions:

- Challenging online activities on Study Island
- Model how to complete problems with the class

Remediation:

- Additional exercises
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- Teacher/Peer-tutoring

Instructional Methods:

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Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Percentages & Financial Literacy

Time Frame: 8 weeks

Common Core Standards: CC.2.4.7.A, CC.2.4.6.A

Essential Content/Objectives: At the end of this unit, students will be able to:

- Use multiplication and division to calculate percentages
- Use multiplication and division to understand how interest rates affect savings or loans
- Apply percentage calculations to real-life financial decisions, such as budgeting, shopping, and saving money
- Calculate the tax percentages on purchases to calculate final costs

Core Activities: Students will complete/participate in the following:

- Daily warm-ups and exit ticket
- Fast fact checks
- Guided and independent practice
- Online activities (Study Island, Blooket, etc)
- Peer activities
- Rotation activities
- Spiral Review

Extensions:

- Challenging online activities on Study Island
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Curriculum Scope and Sequence

Planned Course: Real World Math Applications

Module: Measurements & Unit Conversions

Time Frame: 4 weeks

Common Core Standards: CC.2.4.7.A, CC.2.1.6.B, CC.2.4.4.A.1

Essential Content/Objectives: At the end of this unit, students will be able to:

- Convert between units of measurements using multiplication and division
- Apply conversions to solve problems related to distance, weight, volume, and time
- Adjust a recipe of their choosing to accommodate different group sizes, practicing conversions between units of measurements (such as tablespoons to teaspoons, cups to ounces, etc.)

Core Activities: Students will complete/participate in the following:

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- Rotation activities
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