

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT



Integrated Math I Foundations

Board Approval Date: October 21, 2021	Course Length: 2 Semesters
Grading: A-F	Credits: 5 Credits per Semester
Proposed Grade Level(s): 9, 10	Subject Area: Mathematics Elective Area (if applicable): N/A
Prerequisite(s): D/F any Trimester/Semester in the 8th school year; 3rd-6th grade math diagnostic score	Corequisite(s): N/A
CTE Sector/Pathway: N/A	
Intent to Pursue 'A-G' College Prep Status: No	
A-G Course Identifier: N/A	
Graduation Requirement: No	
Course Intent: District Course Program (if applicable): N/A	
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COURSE DESCRIPTION (Online Course):

Integrated Mathematics 1 Foundations is designed for students who are not yet ready for Integrated Math 1. This is a non-college prep course designed to build the concepts and skills necessary for high school mathematics. Instructional time will focus on the following topics from the Common Core State Standards for Mathematics: ratios and proportional reasoning, operations with rational numbers, linear expressions and equations, linear systems, functions, and the Pythagorean Theorem. After successful completion of this course, students can enroll in Integrated Math 1.

DETAILED UNITS OF INSTRUCTION:

Unit Number/Title	Unit Essential Questions	Examples of Formative Assessments	Examples of Summative Assessment
1. Introduction to Problem Solving	How do I determine the best numerical representation (pictorial, symbolic, objects) for a given situation? How does finding the common characteristics among similar problems help me to be a more efficient problem solver? What kinds of experiences help develop number sense?	*Checkup Practice Problems	*Discuss: Introduction to Problem Solving *Unit Test
2. The Language of Algebra	How are verbal and algebraic models and formulas used to represent real life situations? How can variables be used to solve problems? How do the tools of algebra relate to equations and modeling relationships in graphic or chart form?	*Journal: Measurement and Units	*Discuss: Using X to Mark the Spot *Unit Test
3. Solving Equations with Four Basic Operations	How do the tools of algebra relate to equations and modeling relationships in graphic or chart form? Why do I need mathematical operations? How do mathematical operations relate to each other? How do I know which mathematical operation (+, -, x, ÷, exponents, etc.) to use? How do I know which computational method (mental math, estimation, paper and pencil, and calculator) to use?	*Checkup Practice Problems	*Modeling: Multistep Linear Equations *Discuss: Math — The Ultimate Balancing Act *Unit Test

4. Functions	How can you represent, identify, and describe functions? How can functions describe real-world situations, model predictions, and solve problems?	*Journal: Domain and Range	*Discuss: Relating to Functions *Modeling: Graphs of Functions *Unit Test
5. Using Logic to Solve Problems	How do you use deductive and inductive reasoning to build and solve problems?	*Checkup Practice Problems	*Unit Test
6. Linear Equations	What does the slope of a line indicate about the line? What information does the equation of a line give you? How are equations and graphs related? How do you create two lines that are parallel or perpendicular?	*Journal: Slope	*Discuss: A Slippery Slope *Modeling: Slope-Intercept Equation of a Line *Unit Test
7. Systems of Linear Equations	How can you graph and solve a system of equations and inequalities? How can systems of equations be used to represent and solve real-world situations?	*Journal: Two-Variable Systems: Elimination	*Discuss: What's the Solution? *Modeling: Two-Variable Systems of Inequalities *Unit Test
8. Exponents and Exponential Functions	Why are exponents useful? How are they used in real world applications? Where do rules for exponents come from? What does a negative exponent mean? How does exponential function compare with polynomial functions, linear in particular? How do we undo the exponential function?	*Journal: Graphs of Exponential Functions	*Discuss: Exponential Potential *Modeling: Exponential Functions *Unit Test
9. Undoing Functions and	How do we graph parent functions and describe	*Checkup Practice Problems	*Discuss: Transformation Station

Moving them Around	transformations of graphs?		*Unit Test
10. Sequences and Functions	Why is a sequence a function? How can you write a rule for an arithmetic sequence? How can you write a rule for a geometric sequence? How can you use sequences and series to solve real life problems?	*Journal: Arithmetic Sequences	*Discuss: What's the Difference? *Modeling: Geometric Sequences *Unit Test

ESSENTIAL STANDARDS:

The content standards addressed in this course come from each of the conceptual categories:

Number and Quantity

Algebra

Functions

Modeling

Statistics and Probability

The content standards addressed in this course come from grades 6-8 domains:

The Number System

Major Clusters:

Know that there are numbers that are not rational and approximate them by rational numbers. (8.NS.1 - 2)

Expressions and Equations

Major Clusters:

Work with radicals and integer exponents. (8.EE.1 – 4)

Understand the connections between proportional relationships, lines, and linear equations. (8.EE.5 – 6)

Analyze and solve linear equations and pairs of simultaneous linear equations. (8.EE.7 - 8)

Functions

Major Clusters:

Define, evaluate, and compare functions. (8.F.1 – 3)

Additional/Supporting Clusters:

Use functions to model relationships between quantities. (8.F.4 - 5)

Statistics and Probability

Additional/Supporting Clusters:

Investigate patterns of association in bivariate data. (8. SP.1 – 4)

RELEVANT STANDARDS AND FRAMEWORKS, CONTENT/PROGRAM SPECIFIC STANDARDS:

Link to Common Core Standards (if applicable):

Educational standards describe what students should know and be able to do in each subject in each grade. In California, the State Board of Education decides on the standards for all students, from kindergarten through high school.

<https://www.cde.ca.gov/be/st/ss/documents/ccssmathstandardaug2013.pdf>

Link to Framework (if applicable):

Curriculum frameworks provide guidance for implementing the content standards adopted by the State Board of Education (SBE). Frameworks are developed by the Instructional Quality Commission, formerly known as the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the SBE.

<https://www.cde.ca.gov/ci/ma/cf/documents/mathfwmathematics1jl.pdf>

Link to Subject Area Content Standards (if applicable):

Content standards were designed to encourage the highest achievement of every student, by defining the knowledge, concepts, and skills that students should acquire at each grade level.

Link to Program Content Area Standards (if applicable):

Program Content Area Standards apply to programs such as International Baccalaureate, Advanced Placement, Career and Technical Education, etc.

TEXTBOOKS AND RESOURCE MATERIALS:

Textbooks

Board Approved	Pilot Completion Date (If applicable)	Textbook Title	Author(s)	Publisher	Edition	Date
<i>Yes</i>		<i>APEX: Foundations Math II</i>		APEX		<i>2019</i>

Other Resource Materials

N/A

Supplemental Materials

Board approved supplemental materials (Including but not limited to: Film Clips, Digital Resources, Supplemental texts, DVDs, Programs (Pebble Creek, DBQ, etc.):

N/A