




Perris Union High School District

Course of Study

A. COURSE INFORMATION		
Course Title: <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">Math 7 Essentials</div> <input checked="" type="checkbox"/> New <input type="checkbox"/> Revised	Subject Area: <input type="checkbox"/> Social Science <input type="checkbox"/> English <input checked="" type="checkbox"/> Mathematics <input type="checkbox"/> Laboratory Science <input type="checkbox"/> World Languages <input type="checkbox"/> Visual or Performing Arts <input type="checkbox"/> College Prep Elective <input type="checkbox"/> Other	Grade Level <input type="checkbox"/> MS <input type="checkbox"/> HS <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input checked="" type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12
Transcript Title/Abbreviation: <div style="border: 1px solid black; height: 20px; width: 100%;"></div> (To be assigned by Educational Services)	Is this classified as a Career Technical Education course? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Transcript Course Code/Number: <div style="border: 1px solid black; height: 20px; width: 100%;"></div> (To be assigned by Educational Services)	Required for Graduation: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Meets UC/CSU Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Was this course <u>previously approved by UC</u> for PUHSD? <input type="checkbox"/> Yes <input type="checkbox"/> No (Will be verified by Ed Services)	Credential Required to teach this course: <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <i>Single Subject: Mathematics</i> <u>To be completed by Human Resources only.</u> </div> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; width: 60%; text-align: center;">  Signature </div> <div style="border: 1px solid black; padding: 2px; width: 30%; text-align: center;"> 1/30/19 Date </div> </div>	
Meets "AP" Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Meets "Honors" Requirements? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Submitted by: Amanda Darton Site: SSC Date: 1/30/2019	Unit Value/Length of Course: <input type="checkbox"/> 0.5 (half year or semester equivalent) <input checked="" type="checkbox"/> 1.0 (one year equivalent) <input type="checkbox"/> 2.0 (two year equivalent) <input type="checkbox"/> Other:	
Approvals	Name/Signature	Date
Director of Curriculum & Instruction		1/30/19
Asst. Superintendent of Educational Services		1/31/19
Governing Board		

Prerequisite(s) (REQUIRED):
None
Corequisite(s) (REQUIRED):
None
Brief Course Description (REQUIRED):
In Math 7 Essentials will provide focused instructional time on the Essential Standards identified from the California Common Core Math 7 Standards, while formalizing and extending the mathematics learned in previous grades. This course will include standard from the following domains: (1) Numbers Systems, (2) Ratios and Proportions and (3) Expressions and Equations.

B. COURSE CONTENT

Course Purpose (REQUIRED):

What is the purpose of this course? Please provide a brief description of the goals and expected outcomes. Note: More specificity than a simple recitation of the State Standards is needed.

In grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.

(1) Students extend their understanding of ratios and develop understanding of proportionality to solve single- and multi-step problems. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects. Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line, called the slope. They distinguish proportional relationships from other relationships.

(2) Students develop a unified understanding of number, recognizing fractions, decimals (that have a finite or a repeating decimal representation), and percents as different representations of rational numbers. Students extend addition, subtraction, multiplication, and division to all rational numbers, maintaining the properties of operations and the relationships between addition and subtraction, and multiplication and division. By applying these properties, and by viewing negative numbers in terms of everyday contexts (e.g., amounts owed or temperatures below zero), students explain and interpret the rules for adding, subtracting, multiplying, and dividing with negative numbers. They use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems.

(3) Students continue their work with area from grade 6, solving problems involving the area and circumference of a circle and surface area of three-dimensional objects. In preparation for work on congruence and similarity in grade 8 they reason about relationships among two-dimensional figures using scale drawings and informal geometric constructions, and they gain familiarity with the relationships between angles formed by intersecting lines. Students work with three-dimensional figures, relating them to two-dimensional figures by examining cross-sections. They solve real-world and mathematical problems involving area, surface area, and volume of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

Course Outline (REQUIRED):

Detailed description of topics covered. All historical knowledge is expected to be empirically based, give examples. Show examples of how the text is incorporated into the topics covered.

Students will work on the following concepts:

- Integers and Rational Numbers
 - Operations with Integers
 - Operations with Rational Numbers
 - Solve Problems with Rational Numbers
- Analyze Proportional Relationship
 - Ratio and Rate Concepts
 - Recognize Proportional Relationships
 - Represent Proportional Relationships
- Analyze and Solve Percent Problems
 - Percent and Proportions
 - Represent the Percent Equation
 - Use the Percent Equation
- Generate Equivalent Expressions
 - Recognize and Represent Expressions
 - Use Properties
 - Simplify Expressions
- Solve Problems Using Equations and Inequalities
 - Evaluate Expressions and Equations
 - The Rules of Equations and Inequalities
 - Evaluate Inequalities
- Solve Problems Involving Geometry
 - Scale Drawing and Formula Concepts

- Recognize Angle and Side Relationships
- Geometric Figures

Writing Assignments (REQUIRED):

Give examples of the writing assignments and the use of critical analysis within the writing assignments.

Writing assignments will include:

- Justifications and/or Explanations
- Cornell Notes
- Assessments
- Projects/Performance Tasks
- Journals/Learning Logs – Reflections/Summaries
- Writing Prompts
- Other CFUs (i.e. Warm ups and Tickets out the Door)

INSTRUCTIONAL MATERIALS (REQUIRED)

Textbook #1

Title: envision Math 2.0

Edition: First

Author: Berry, Champagne, Milou, Schielack, Wray, Charles and Fennell

ISBN:
9780328896226

Publisher: Pearson

Publication Date: 2016

Usage:

- Primary Text
- Read in entirety or near

Textbook #2

Title:

Edition:

Author:

ISBN:

Publisher:

Publication Date:

Usage:

- Primary Text
- Read in entirety or near

Supplemental Instructional Materials *Please include online, and open source resources if any.*

9780328896448 ENVISION MATH 2.0 EXAMVIEW CD-ROM GRADE 7 COPYRIGHT 2017 \$128.97
 9780328881123 ENVISION MATH 2.0 TEACHER RESOURCE MASTERS PACKAGE GR 7 COPYRIGHT 2017 \$149.97
 9780328880973 ENVISION MATH 2.0 COMMON CORE TEACHER EDITION PACKAGE GR.7 COPYRIGHT 2017 \$ 530.97

Estimated costs for classroom materials and supplies (REQUIRED). *Please describe in detail.*
 If more space is needed than what is provided, please attach backup as applicable.

Cost for class set of textbooks: \$ 3742.92	Description of Additional Costs:
Additional costs:\$ 530.97	
Total cost per class set of instructional materials:	\$ 42738.89

Key Assignments (REQUIRED):

Please provide a detailed description of the Key Assignments including tests, and quizzes, which should incorporate not only short answers but essay questions also. How do assignments incorporate topics? Include all major assessments that students will be required to complete

Key Assignments will include:

- End of Unit Assessments
- Daily/Lesson Quizzes
- Semester Benchmarks/Finals
- Performance Tasks/ Projects
- Homework
- Cornell Notes

Instructional Methods and/or Strategies (REQUIRED):

Please list specific instructional methods that will be use.

Instructional Strategies will include:

- Direct Instruction
- Targeted Feedback
- Reciprocal Teaching
- Collaboration
- Adapting to learning styles and multiple intelligences
- Realia
- Modeling
- Guided and Independent practice
- Partner/ Group work

- Spiraling
- Questioning strategies that look for participation and content understanding

Assessment Methods and/or Tools (REQUIRED):

Please list different methods of assessments that will be used.

Assessment Methods will include:

- Type of Questions include:
 - Open Response
 - Multiple Choice
 - Performance Assessment\
 - Multiple Choice
- Investigations
- Projects
- Self-assessment
- Whiteboards
- Find the error
- Portfolios/"Notebooks"
- Ticket out the Doors
- Homework

Platforms include: Pearson, Eadms, Haiku and Desmos

COURSE PACING GUIDE AND OBJECTIVES (REQUIRED)

Day(s)	Objective	Standard(s)	Chapter(s)	Reference
10 - 20	<p>Recognize and represent proportional relationships between quantities.</p> <ul style="list-style-type: none"> ● Connect ratios to unit rates ● Determine the unit rate from a ratio ● Find equivalent unit rates ● Use constant of proportionality to describe a situation from real world concepts ● Use proportions to find a missing unit rate. 	RP.2.b	Topic 2	Pearson Envision 2.0
14-28	<p>Use proportional relationships to solve multi-step ratio and percent problems.</p> <ul style="list-style-type: none"> ● Solve simple interest ● Solve for tax 	RP.3	Topics 2 and 3	

	<ul style="list-style-type: none"> ● Solve markups and markdowns ● Solve gratuities, commissions, and fees ● Solve percent increase and percent decrease ● Solve percent error problems ● Solve percent change problems 			
10 - 40	<p>Apply properties of operations as strategies to add and subtract rational numbers.</p> <ul style="list-style-type: none"> ● Identify integers on a number line. ● Add & Subtract integers using a number line. ● Relate integers on a number line. ● Solve Absolute Value problems. ● Convert fractions to decimals. ● Convert decimals to fractions. ● Add & Subtract fractions with like denominators. ● Add & Subtract fractions with different denominators. ● Add & Subtract Mixed Numbers with like denominators. ● Add & Subtract Mixed Numbers with different denominators. ● Evaluate strategies for adding and subtracting rational numbers ● Apply the commutative property of addition and multiplication 	NS.1.d	Topic 1	
15-25	<p>Apply properties of operations as strategies to multiply and divide rational numbers.</p> <ul style="list-style-type: none"> ● Multiply decimals and fractions with the same signs. ● Multiply decimals and fractions with different signs. ● Understand the sign of a product is determined by the signs of the factors. ● Divide decimals and fractions with the same signs. ● Divide decimals and fractions with different signs 	NS.2.c	Topic 1	
9-15	<p>Understand that rewriting an expression in different forms in a problem context can</p>	EE.2	Topics 4 & 5	

	<p>shed light on the problem and how the quantities in it are related.</p> <ul style="list-style-type: none"> ● Write and evaluate algebraic expressions ● Generate equivalent expressions from word problems. ● Simplify expressions into equivalent expressions by factoring/ expand by distributing 			
9-15	<p>Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers.</p> <ul style="list-style-type: none"> ● Construct equations to solve problems by reasoning about the quantities. ● Compare an algebraic solution to an arithmetic solution. ● Identify the steps to solve the equation. 	EE.4.a	Topics 4 & 5	
18-30	<p>Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.</p> <ul style="list-style-type: none"> ● Graph the solution set of the inequality and interpret it in the context of the problem. ● Solve Inequality word problems that have variables using addition, subtraction, multiplication, and division with all forms of rational numbers. ● Understand and use inequalities. ● Understand and use variables. ● Understand and use rational numbers. ● Know how to pick the correct inequality symbol. when writing the inequality. 	EE.4.b	Topics 4 & 5	

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C. HONORS COURSES ONLY

Indicate how much this honors course is different from the standard course.

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D. BACKGROUND INFORMATION

Context for course (optional)

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History of Course Development (optional)

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