

2023 - 2024 Coachella Valley Scope and Sequence: Math II


ANYTHING UNDERLINED IS A LINK!

[Assessment List](#)

MAPS NEEDED TO CREATE GRADE LEVEL TRACKERS

iMath2_CMap

[Secondary Assessment Calendar](#)

What Students Learn in Math II				
<p>The first semester of Math II continues the emphasis on functions in high school mathematics. The semester begins with extending learning on polynomial operations from middle school, and for this academic year, some area and volume keeping with the idea of working with variables in context. Key learning in semester one includes examining situations that generate quadratic functions, graph them, and examine the key features of quadratic functions, including rates of change, extreme values, intercepts and intervals of interest. Toward the end of the semester, students solve quadratic equations by factoring and quadratic formulas. They relate solutions of quadratic equations to the x-intercepts of quadratic functions. As not all quadratic equations have real number solutions, students learn about complex numbers. To finish up the semester, students compare quadratic functions, functions learned in Math I and their key features to new functions including step, piecewise and absolute value functions.</p> <p>Much of the second semester involves a further development of geometric concepts. Due to the challenges of distance learning during the last year, a modified unit on Transformations and Triangle Congruence with key lessons from Math I will be integrated during this academic year. Students then use transformations and congruence ideas from Math I to identify and prove key properties of angles, triangles and quadrilaterals. Similarity, also defined using transformations, is another foundational concept studied in Math II which leads to the development of right triangle trigonometry. The year ends with several supporting topics, including circles (less area and circumference which is now in semester one this year), rational exponents and probability.</p>				
Unit Numbers and Titles		Pearson	Time	By the end of Math II...
Required Diagnostic: <u>i-Ready</u> (Aug 28 - Sept 22)				
S e m e s t e r 1	Community Building; Social Emotional Learning; Setting Norms and Routines	N/A	1 week	<p><u>Students should have mastered the following:</u></p> <ul style="list-style-type: none"> ● Add/subtract/multiply polynomials ● Understanding graphs of quadratic functions, including key features of the graphs ● Comparing linear and exponential functions to quadratic functions ● Factor quadratic polynomials ● Solve quadratic equations by factoring and quadratic formula ● Understanding of congruence and similarity through the proofs of geometric theorems
	1. <u>Polynomials Operation</u> (with integration of area, perimeter and volume formulas - rectangles/ rectangular prisms, cylinders)	11, (reference for geo formulas 8, 9)	4-5 weeks	
	2. <u>Quadratic Functions</u>	12	3 weeks	
	3. <u>Quadratic Expressions and Equations</u>	11& 12	4-5 weeks	
	Required Benchmark #1 in MasteryConnect (Dec 4 - 15) iMath 2_BM1			
4. <u>Comparing Functions and Modeling</u>	14	3 weeks		
Required Diagnostic: <u>i-Ready</u> (Jan 8 - Feb 2)				<p><u>Students should be working towards:</u></p> <ul style="list-style-type: none"> ● Right Triangle Trigonometry and the Pythagorean Theorem ● Volume of a cylinder, pyramid, cone, sphere
S e m	5. <u>Angles, Triangles and Quadrilaterals</u>	2, 4, 5 	4 weeks	

s t e r 2	6. Modified Unit from: Transformations and Triangle Congruence Through Rigid Motion	IM-1 (moved to IM-2)	4-5 weeks	<ul style="list-style-type: none"> ● Complex numbers ● Circles including angle and arc relationships and the equation of a circle ● Probability <p>Other Notes</p> <ul style="list-style-type: none"> ● Homework should be spiraled to allow for learning/mastery over time ● Every Wednesday OR Every other Wednesday as a skill builder/mastery day <ul style="list-style-type: none"> ○ e.g., graphing and solving linear equations in unit 1 in preparation for quadratics; graphing quadratics in Units 3 and on, etc. ○ differentiation to allow for students to work on concepts/skills (chunking the class into smaller groups based on need) <p>Link to Lessons by Unit</p>
	7. Similarity & Right Triangle Trigonometry (Surface Area and Volume of Solids)	6, 7, 9	4 weeks	
	Required Benchmark #2 in MasteryConnect (April 8 - April 19) iMath 2_BM2			
	8. Rational Exponents (Regular) Rational Exponents (Honors/Advanced)	10	2 weeks	
	Required Diagnostic: i-Ready (May 1 - June 11)			
	9. Circles and Coordinate Geometry (focus on circles for MIII)	8	1 weeks	
	10. Volume (with Unit 1)	9	0 weeks	
	11. Probability	13	0-1 weeks	