









# ALGEBRA 2

What will we teach your child?

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## Arenas, Sprints, and Belts

Arena 1		Arena 2	
			
White Belt 1	White Belt 2	Yellow Belt 1	Yellow Belt 2
6 Weeks	6 Weeks	6 Weeks	6 Weeks
3 Months		3 Months	
Program Completion Time: 12 Months			
Arena 3		Arena 4	
			
Green Belt 1	Green Belt 2	Blue Belt 1	Blue Belt 2
6 Weeks	6 Weeks	6 Weeks	6 Weeks
3 Months		3 Months	

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White Belt 1	
#	Sprints (6 Weeks)
1	Rational Numbers and Operations
2	Rational Exponents
3	Radicals - Properties & Evaluating
4	Polynomials- Introduction & Operations
5	Monomials & Binomials
6	Review/Assessment



**White Belt 1**

White Belt 2	
#	Sprints (6 Weeks)
1	Polynomial Identities
2	Polynomial Factorization
3	Factorization Using Structure & Substitution
4	Geometric Series - Introduction & Formula
5	Finite/Infinite Geometric Series
6	Review/Assessment

Yellow Belt 1	
#	Sprints (6 Weeks)
1	Polynomial Division - By x, linear factors & expressions
2	Polynomial Remainder Theorem
3	Polynomial Graphs
4	The Binomial Theorem
5	Exponential Model & Rate of change
6	Review/Assessment



**Yellow Belt 1**

Yellow Belt 2	
#	Sprints (6 Weeks)
1	Logarithms - Introduction & Properties
2	Relationship Between Logarithm & Exponents
3	Change Of Base Formula & Equations With Logarithms
4	Inverse Functions and Logarithms
5	Shifting & Reflecting Functions
6	Review/Assessment

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**White Belt 2**



**Yellow Belt 2**

Green Belt 1	
#	Sprints (6 Weeks)
1	Symmetry Of Functions
2	Rational & Square-root Equations
3	Extraneous Solutions & Cube-root Equations
4	Factoring a Sum/Difference of Cubes
5	Quadratic Systems
6	Review/Assessment

Blue Belt 2	
#	Sprints (6 Weeks)
1	Sinusoidal Models
2	Transforming & Graphing Sinusoidal functions
3	Modeling With Functions & Two/Multiple Variables
4	Interpreting Features Of Functions
5	Graphing general rational functions
6	Review/Assessment



**Green Belt 1**



**Blue Belt 1**

Green Belt 2	
#	Sprints (6 Weeks)
1	Solving Equations With Graphing
2	Trigonometry - Introduction & Radians
3	Trigonometric Identities & Values
4	The Law of Sines and Cosines
5	Graphs Of $\sin(x)$ , $\cos(x)$ , & $\tan(x)$

Blue Belt 2	
#	Sprints (6 Weeks)
1	Manipulating Functions
2	Imaginary Numbers & Their Power
3	Complex Numbers - Introduction & Classification
4	Rationalizing imaginary denominators
5	Complex Plane & Complex Number Operations

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6	Review/Assessment
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6	Review/Assessment
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**Green Belt 2**



**Blue Belt 2**