CARLSTADT-EAST RUTHERFORD REGIONAL HIGH SCHOOL DISTRICT MATHEMATICS DEPARTMENT Algebra 2 / Algebra 2 CP / Algebra 2 Honors Curriculum Guide

Pacing Guide: Algebra 2 is a full	Unit 1 (Chapter 5): Quadratic Functions. 3-4 weeks
year course that meets on a rotating basis for three (3) 55- minute blocks and one (1) 40- minute block for every five (5) day cycle.	Unit 2 (Chapter 6): Polynomials and Polynomial Functions. 1-2 weeks
	Unit 3 (Chapter 7): Powers, Roots, and Radicals. 2-3 weeks
	Unit 4 (Chapter 8): Exponential and Logarithmic Functions. 2-3 weeks
	Unit 5 (Chapter 9): Rational Equations and Functions. 3-4 weeks
	Unit 6 (Chapter 12): Data Analysis and Statistics. 3-4 weeks
	Unit 7 (Chapter 11): Sequences and Series. 2 weeks
	Unit 8 (Chapter 10): Quadratic Relations and Conic Sections. 3-4 weeks
	Unit 9 (Chapter 14): Trig. Graphs, Identities, and Equations. 5-6 weeks
	Unit 10 (Chapter 13): Trigonometric Ratios and Functions. 5-6 weeks

21st Century Skills Standards:9.1 Personal Finance Literacy	9.1.12.D.3: Summarize how investing builds wealth and assists in meeting long-and short-term financial goals.		
	9.1.12.D.5: Justify the use of savings and investment options to meet targeted goals.		
	9.1.12.D.10: Differentiate among various investment products and savings vehicles and how to use them most effectively.		
9.2 Career Awareness	9.2.12.C.1: Review career goals and determine steps necessary for attainment.		
	9.2.12.C.4: Analyze how economic conditions and social changes influence employment trends and future education.		
Technology Standards	8.1.12.A.4: Construct a spreadsheet, enter data, and use mathematical or logical functions to manipulate data, generate charts and graphs, and interpret the results.		

Interdisciplinary Connections	SCIENCE
	HS-LS2-1. Use mathematical and/or computational representations to support explanations of factors that affect carrying
	capacity of ecosystems at different scales.
	ENLGISH LANUGAGE ARTS
	WHST.9-12.9 Draw evidence from informational texts to support analysis, reflection, and research.

NJSLS Mathematical Practices –	1. Make sense of problems and persevere in solving them.			
These practices are demonstrated	2. Reason abstractly and quantitatively.			
throughout the curriculum.	3. Construct viable arguments and critique the reasoning of others.			
	4. Model with mathematics.			
	5. Use appropriate tools strategically.			
	6. Attend to precision.			
	7. Look for and make use of structure.			
	8. Look for and express regularity in repeated reasoning.			
NJSLS Career Ready Practices –	CRP2. Apply appropriate academic and technical skills.			
These practices are demonstrated	CRP4. Communicate clearly and effectively and with reason.			
throughout the curriculum	CRP6. Demonstrate creativity and innovation.			
C	CRP7. Employ valid and reliable research strategies.			
	CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.			
	CRP9. Model integrity, ethical leadership and effective management.			
	CRP11. Use technology to enhance productivity.			
	CRP12. Work productively in teams while using cultural global competence.			

CARLSTADT-EAST RUTHERFORD REGIONAL HIGH SCHOOL DISTRICT MATHEMATICS DEPARTMENT Differentiation/Accommodations/Modifications

Note: Each district should review the various strategies noted below and determine which are applicable for their population within varied grade levels and languages and make edits where needed.

Gifted and Talented	English Language Learners	Students with Disabilities	Students at Risk of School Failure
 (content, process, product and learning environment) Extension Activities: Conduct research and provide presentation of mathematical topics. Design surveys to generate and analyze data to be used in discussion. Use of higher level questioning techniques. Provide assessments at a higher level of thinking. 	 Modifications for Homework/Assignments Modified assignments. Extended time for assignment completion as needed. Use graphing calculator. Highlight formulas. 	 (appropriate accommodations, instructional adaptations, and/or modifications as determined by the IEP or 504 team) Modifications for Classroom: Ask students to restate information, directions, and assignments. Repetition and practice. Model skills / techniques to be mastered. Extended time to complete class work. Provide copy of classnotes. Preferential seating to be mutually determined by the student and teacher. Students may request books online, on tape/CD, as available and appropriate. Assign peer helper in the class setting. Provide regular parent / school communication Provide oral reminders and check student work during independent work time. 	 Modifications for Classroom: Ask students to restate information, directions, and assignments. Repetition and practice. Model skills / techniques to be mastered. Extended time to complete class work. Provide copy of classnotes. Preferential seating to be mutually determined by the student and teacher. Students may request books online, on tape/CD, as available and appropriate. Assign peer helper in the class setting. Provide oral reminders and check student work during independent work time. Assist student with long and short term planning of assignments Provide regular parent / school communication. Assign peer helper in the class setting. Provide oral reminders and check

Henry P. Becton Regional High School July 2018 Page **4** of **66**

 Assist student with long and short term planning of assignments Modifications for Homework 	 student work during independent work time. Assist student with long and short term planning of assignments
 Extended time to complete assignments. Student requires more complex assignments to be broken up and explained in smaller units, with work to be submitted in phases. Provide the student with clearly stated (written) expectations and grading criteria for assignments. Modification for Assessments 	 Modifications for Homework Extended time to complete assignments. Student requires more complex assignments to be broken up and explained in smaller units, with work to be submitted in phases. Provide the student with clearly stated (written) expectations and grading criteria for assignments.
 Extended time on classroom tests and quizzes. Student may take / complete tests in an alternate setting as needed. Restate, reread, and clarify directions/questions. Distribute study guide for classroom tests. Establish procedures for accommodations / modifications for assessments. 	 Modification for Assessments Extended time on classroom tests and quizzes. Student may take / complete tests in an alternate setting as needed. Restate, reread, and clarify directions/questions. Distribute study guide for classroom tests. Establish procedures for accommodations / modifications for assessments.

CONTENT: Chapter 5			
Theme: Quadratic Functions			
Essential Questions:			
How do we graph and write the equation	n of quadratic functions?		
How do we solve and find the zeros of a	quadratic function?		
How do we work with radicals and com	plex numbers?		
Content (As a result of this learning segment, students will know)	Skills (As a result of this learning segment, students will be able to)	Assessments (The above Essential Questions will be assessed with the following formative and summative	Standards: 8.1.12.A.4 NJSLS MA 9-12
• Section 5.1 Graphing Quadratic Functions	• Students will be able to Know the role of a, b and c in the graphing of a quadratic function.	<i>measures:</i>)Homework	F-IF 4, 5, 6, 8, 9 A-CED 2, 3, A-SSE 1, 3 F-BF 3
	 Graph by finding the axis of symmetry, vertex, Y intercept and image point. Find the minimum and maximum points. 	 Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests 	Time Frame: 1 week
	• Graph the quadratic functions when given in vertex or intercept forms of the quadratic	 Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2
			Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 5			
Theme: Quadratic Functions			
Essential Questions: How do we graph and write the equation of quadratic functions? How do we solve and find the zeros of a quadratic function? How do we work with radicals and complex numbers?			
 Section 5.2 Solving Quadratic Equations by Factoring. 	 Be able to solve a quadratic equation in the form of x²+bx +c form by factoring and applying the zero product rule. Be able to solve a quadratic equation in the form of ax²+bx +c form by factoring and applying the zero product rule. Be able to solve a quadratic equation in the form of by factoring with special patterns. 	Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	TECH 8.1.12.A.4 NJSLS MA 9-12 N-Q 1, 2 A-SSE 1, 2, 3 A-REI 4 F-IF 2, 8 Time Frame: 2 days Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

sessments (The above Essential estions will be assessed with the	Standards:
sessments (The above Essential estions will be assessed with the	Standards:
sessments (The above Essential estions will be assessed with the	Standards:
sessments (The above Essential estions will be assessed with the	Standards:
sessments (The above Essential estions will be assessed with the	Standards:
sessments (The above Essential estions will be assessed with the	Standards:
	TECH 8.1.12.A.4
owing formative and summative asures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	NJSLS MA 9-12 A-CED 1 A-REI 4, 11 S-ID 6 Time Frame: 1-2 days Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.
Mi Fir	dterm exam nal Exam

CONTENT: Chapter 5						
Theme: Quadratic Functions						
Essential Questions:						
How do we graph and write the equation	n of quadratic functions?					
How do we solve and find the zeros of a	a quadratic function?					
How do we work with radicals and com	plex numbers?					
 Content (As a result of this learning segment, students will know) Section 5.4 Complex Numbers Understand what a pure imagin number is compared to a comp number. Be able to add, subtract, multip divide and find the absolute va of complex numbers. 		Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) • Homework • Warm up exercises • Exit Tickets • Group activities • Section guizzes	Standards: TECH 8.1.12.A.4 NJSLS MA 9-12 N-CN 1-7 A-REI 4 Time Frame: 1-2 days			
		 Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus.Smart board, internet research and activities, graph papers, color pencils.			
	activities, graph papers, color pencils.					

CONTENT: Chapter 5			
Theme: Quadratic Functions			
Essential Questions:			
How do we graph and write the equation	n of quadratic functions?		
How do we solve and find the zeros of a	quadratic function?		
How do we work with radicals and com	plex numbers?		
 Content (As a result of this learning segment, students will know) Section 5.5 Completing the Square 	 Skills (As a result of this learning segment, students will be able to) Be able to completing the square as a technique for solving quadratics equations that cannot be factored and solved. 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) • Homework • Warm up exercises • Exit Tickets • Group activities • Section quizzes • Chapter tests • Cumulative tests • Projects / Presentations • Midterm exam • Final Exam	Standards: TECH 8.1.12.A.4 NJSLS MA 9-12 N-CN 3, 7 A-SSE 3 / A-CED 1 A-REI 4, 12 F-IF 2Time Frame: 1-2 daysMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 5			
Theme: Quadratic Functions			
Essential Questions:			
How do we graph and write the equation	n of quadratic functions?		
How do we solve and find the zeros of a	a quadratic function?		
How do we work with radicals and com	plex numbers?		a
 Content (As a result of this learning segment, students will know) Section 5.6 The Quadratic Formula and the Discriminant. 	 Skills (As a result of this learning segment, students will be able to) Be able to use the quadratic formula as a technique for solving quadratic equations that cannot factored and solved. 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	Standards: TECH 8.1.12.A.4 NJSLS MA 9-12 A-CED 1 A-REI 4Time Frame: 1-2 daysMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus.Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 6			
Theme: Polynomials and Polynomial H	Functions		
Essential Questions:			
How do we graph a polynomial function	n?		
How do we add, subtract, multiply or di	vide a polynomial?		
How do we solve a polynomial expression	ion?		
 How do we solve a polynomial expressi Content (As a result of this learning segment, students will know) Section 6.1 Using Properties of Exponents. 	 Skills (As a result of this learning segment, students will be able to) Be able to simplify expressions involving exponents utilizing the rules of exponents. Be able to use scientific notation. 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	Standards: TECH 8.1.12.A.4 NJSLS MA 9-12 N-CN 2 F-IF 7 G-GMD 3Time Frame: 1 dayMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2
			Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 6	CONTENT: Chapter 6				
Theme: Polynomials and Polynomial Functions					
Essential Questions:					
How do we graph a polynomial function	1?				
How do we add, subtract, multiply or di	vide a polynomial?				
How do we solve a polynomial expressi	on?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	TECH 8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 6.2 Evaluating and	• Be able to identify if an	measures:)	N-Q 1		
Graphing Polynomial Functions	expression is a polynomial.		A-SSE 1		
	• Be able to evaluate a function	Homework	A-CED 2, 3 /F-IF 7		
	using synthetic division.	• Warm up exercises	Time Frame:		
	• Be able to figure out the shape of	Exit Tickets	1-2 days		
	a polynomial graph based on its	Group activities			
	end behavior.	Section guizzes			
		Chapter tests	Materials:		
		Cumulative tests	Textbook: 2004 McDougal Littell		
		Projects / Presentations	Algebra 2 by Larson, ISBN-13: 978-0-		
		 Midterm exam 	618-25020-2		
		Final Exam			
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 6				
Theme: Polynomials and Polynomial F	Functions			
Essential Questions:				
How do we graph a polynomial function	n?			
How do we add, subtract, multiply or di	vide a polynomial?			
How do we solve a polynomial expressi	on?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 6.3 Adding, Subtracting	• Be able to add, subtract, multiply	measures:)	A-SSE 1, 2 / A-APR 1	
and Multiplying Polynomials.	and divide polynomials.		F-IF 7 / G-GMD 3	
		Homework	Time Frome:	
		• Warm up exercises	1 day	
		Exit Tickets	1 duy	
		Group activities		
Section quizzes				
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
			activities, graph papers, color penetis.	

CONTENT: Chapter 6					
Theme: Polynomials and Polynomial F	unctions				
Essential Questions:					
How do we graph a polynomial function	?				
How do we add, subtract, multiply or div	vide a polynomial?				
How do we solve a polynomial expression	on?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 6.4 Factoring and Solving	• Be able to factor a polynomial and	measures:)	N-Q 1, 2		
Polynomial Equations.	solve for its zeros using grouping,		A-SSE 1, 2 / A-APR 3, 4 / A-CED 1		
	difference of square and cubes,	Homework	Timo Framo:		
	sum of two cubes and quadratics.	• Warm up exercises	1 day		
		• Exit Tickets	1 day		
		Group activities			
		 Section quizzes 			
	Chapter tests				
		Cumulative tests	Materials:		
		Projects / Presentations	Textbook: 2004 McDougal Littell		
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-		
		• Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board internat research and		
			sinal board, internet research and		
			acuvities, graph papers, color pencils.		

CONTENT: Chapter 6				
Theme: Polynomials and Polynomial F	Functions			
Essential Questions:				
How do we graph a polynomial function	1?			
How do we add, subtract, multiply or di	vide a polynomial?			
How do we solve a polynomial expressi	on?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 6.5 The Remainder and	• Be able to apply the factor	measures:)	A-APR 1-3, 6	
Factor Theorems.	theorem to a polynomial in order		G-GMD 3	
	to factor by using long and	Homework	Time Frame:	
	synthetic division.	• Warm up exercises	2 days	
		• Exit Tickets	2 duys	
		Group activities		
Section quizzes				
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			sinal board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 6				
Theme: Polynomials and Polynomial Functions				
Essential Questions:				
How do we graph a polynomial function	n?			
How do we add, subtract, multiply or di	vide a polynomial?			
How do we solve a polynomial express	ion?			
 How do we solve a polynomial expression Content (As a result of this learning segment, students will know) Section 6.6 The Rational Zeros. 	 Skills (As a result of this learning segment, students will be able to) Be able to use the factor theorem in order to factor and solve 3rd degree or higher polynomial for rational roots. 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:)• Homework• Warm up exercises• Exit Tickets• Group activities• Section quizzes• Chapter tests• Cumulative tests• Projects / Presentations• Midterm exam• Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 N-Q 2 / A-SSE 1 A-APR 2, 3 A-CED 1 A-REI 11 Time Frame: 1-2 days Materials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0-618-25020-2	
			Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 6				
Theme: Polynomials and Polynomial F	Functions			
Essential Questions:				
How do we graph a polynomial functior	1?			
How do we add, subtract, multiply or di	vide a polynomial?			
How do we solve a polynomial expressi	on?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 6.7 Using the	• Be able to apply the fundamental	measures:)	N-CN 8, 9	
Fundamental Theorem of Algebra.	theorem of algebra to determine			
	the possible number of positive,	Homework	Time From a	
	negative and imaginary zeros.	• Warm up exercises	1 me Frame:	
		Exit Tickets	1-2 days	
		Group activities		
		Section quizzes		
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		• Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		• Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
activities, graph papers, color pencils.				

CONTENT: Chapter 6					
Theme: Polynomials and Polynomial H	Functions				
Essential Questions:					
How do we graph a polynomial function	n?				
How do we add, subtract, multiply or di	ivide a polynomial?				
How do we solve a polynomial express	How do we solve a polynomial expression?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 6.8 Analyzing Graphs of	• Be able to tell when a polynomial	measures:)	A-APR 3		
Polynomials Functions.	has a local minimum or local		F-IF 4, 5, 7c		
	maximum by finding the turning	Homework	Time Frame.		
	points of a polynomial graph.	• Warm up exercises	1-2 days		
		• Exit Tickets	1 2 duys		
		Group activities			
		Section quizzes			
		Chapter tests			
		Cumulative tests	Materials:		
		Projects / Presentations	Textbook: 2004 McDougal Littell		
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-		
		Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board internet research and		
			activities graph papers color papeils		
			activities, graph papers, color pencils.		

CONTENT: Chapter 7				
Theme: Powers, Roots, and Radicals.				
Essential Questions:				
How do we work with rational exponent	ts?			
How do we perform function operations	5?			
How do we graph and solve radical exp	ressions?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 7.1 n th Root and Rational Exponents	Be able to change from radical to exponential form	measures:)	N-RN 1 / A-REI 2	
	• Be able to solve n th root problems	Homework		
		• Warm up exercises	Time Frame:	
		• Exit Tickets	1-2 days	
		Group activities		
		Section quizzes		
Chapter tests				
		Cumulative tests	Materials [.]	
		 Projects / Presentations 	Textbook: 2004 McDougal Littell	
		 Midterm exam 	Algebra 2 by Larson ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
			activities, graph papers, color penetis.	

CONTENT: Chapter 7			
Theme: Powers, Roots, and Radicals.			
Essential Questions:			
How do we work with rational exponen	ts?		
How do we perform function operations	5?		
How do we graph and solve radical exp	ressions?	1	
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 7.2 Properties of Rational	• Be able to expand students'	measures:)	N-RN 1, 2
Exponents.	knowledge of exponents from		
	integral exponents to rational	Homework	Time Frame:
	exponents.	• Warm up exercises	1 day
		• Exit Tickets	
		Group activities	
		Section quizzes	
		Chapter tests	
		Cumulative tests	Materials:
		 Projects / Presentations 	Textbook: 2004 McDougal Littell
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		Final Exam	618-25020-2
			Graphing calculators: 11-83/84 plus.
			Smart board internet research and
			smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 7				
Theme: Powers, Roots, and Radicals.				
Essential Questions:				
How do we work with rational exponent	ts?			
How do we perform function operations	?			
How do we graph and solve radical expr	ressions?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 7.3 Power Functions and	• Be able to perform operations on a	measures:)	A-CED 2	
Function Operations.	pair of functions to obtain a third		F-BF I	
	function.	• Homework	Time Frame:	
	• Be able to find the composition of	• Warm up exercises	1 day	
	a function.	• Exit Tickets	1 000	
		Group activities		
Section quizzes				
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: T1-83/84 plus.	
			Course the sold intermed management and	
			Smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 7			
Theme: Powers, Roots, and Radicals.			
Essential Questions:			
How do we work with rational exponen	ts?		
How do we perform function operations	3?		
How do we graph and solve radical exp	ressions?	1	
 How do we graph and solve radical exp. Content (As a result of this learning segment, students will know) Section 7.4 Inverse Functions. 	 Skills (As a result of this learning segment, students will be able to) Be able to find an inverse function. Be able to tell whether two functions are inverses of each other. 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) • Homework • Warm up exercises • Exit Tickets • Group activities • Section quizzes • Chapter tests • Cumulative tests • Projects / Presentations • Midterm exam • Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-CED 4 F-IF 5 F-BF 4Time Frame: 1-2 daysMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 7			
Theme: Powers, Roots, and Radicals.			
Essential Questions:			
How do we work with rational exponent	ts?		
How do we perform function operations	?		
How do we graph and solve radical expr	ressions?		1
Content (As a result of this learning segment students will know)	Skills (As a result of this learning segment students will be able to)	Assessments (The above Essential Questions will be assessed with the	Standards: 8 1 12 A 4
segment, students witt know)	segment, students will be uble to)	following formative and summative	NJSLS MA 9-12
• Section 7.5 Graphing Square Root	• Be able to identify a square root	measures:)	F-IF 4, 5, 7
and Cube Root Functions.	and cubic graph.		F-BF 3
	• Be able to sketch a square root and	• Homework	Time Frame:
	cube root graph.	• Warm up exercises	1-2 days
		• Exit lickets	, , , , , , , , , , , , , , , , , , ,
		Group activities	
		• Section quizzes	
		Chapter tests Cumulative tests	Materials: Textbook: 2004 McDouggl Littell
		Cumulative tests	Algebra 2 by Larson ISBN 12:078 0
		 Projects / Presentations Midterm exam 	618-25020-2
		 Final Exam 	010 23020 2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 7	CONTENT: Chapter 7			
Theme: Powers, Roots, and Radicals.				
Essential Questions:				
How do we work with rational exponent	ts?			
How do we perform function operations	?			
How do we graph and solve radical exp	ressions?			
 Content (As a result of this learning segment, students will know) Section 7.6 Solving Radical Equations 	 Skills (As a result of this learning segment, students will be able to) Be able to solve radical equations. Be able to identify apparent 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:)	Standards: 8.1.12.A.4 NJSLS MA 9-12 N-RN 2 A-REI 2-11	
Equations.	 Be able to identify apparent solutions. Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests 	Time Frame: 1-2 days		
		 Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 8					
Theme: Exponential and Logarithmic	Functions				
Essential Questions:					
How do we graph an exponential or log	arithmic function?				
How do we solve an exponential or loga	How do we solve an exponential or logarithmic function?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
• Section 8.1 Exponential Growth.	 Be able to identify an exponential growth graph Be able to solve a growth problem Model exponential growth in real-life by calculating compound interest. 	 following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations 	NJSLS MA 9-12 A-SSE 1 F-IF 4, 7, 8 F-BF 3 F-LE 5 9.1.12.D.3, 9.1.12.D.5, 9.2.12.C.4 9.3.ST-SM.2 Time Frame: 1-2 days		
		 Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.		

CONTENT: Chapter 8			
Theme: Exponential and Logarithmic I	Functions		
Essential Questions:			
How do we graph an exponential or loga	arithmic function?		
How do we solve an exponential or loga	arithmic function?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 8.2 Exponential Decay	• Be able to identify an exponential	measures:)	A-SSE I
	decay graph	TT 1	F-IF 4, 7, 87 F-BF 3
	• Be able to solve a decay problem	Homework	Time Frame:
		warm up exercises Exit Tickets	1 day
		Exit fickets Group activities	
		Soction guizzos	
		Section quizzes Chapter tests	
		Chapter tests Cumulative tests	Matarials:
		 Culturative tests Projects / Presentations 	Textbook: 2004 McDougal Littell
		 Midterm exam 	Algebra 2 by Larson ISBN-13, 978-0-
		 Final Exam 	618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 8			
Theme: Exponential and Logarithmic I	Functions		
Essential Questions:			
How do we graph an exponential or loga	arithmic function?		
How do we solve an exponential or loga	arithmic function?		
Content (As a result of this learning segment, students will know)	Skills (As a result of this learning segment, students will be able to)	Assessments (The above Essential Ouestions will be assessed with the	Standards: 8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 8.3 The Number e	 Understand the base e and able to graph Identify the difference between exponential growth and exponential decay 	 following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam 	NJSLS MA 9-12 A-SSE 1 F-IF 4, 7, 8 F-BF 3 9.1.12.D.5, 9.1.12.D.10 9.2.12.C.1, 9.3.ST-SM.2 Time Frame: 1-2 days Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 8			
Theme: Exponential and Logarithmic l	Functions		
Essential Questions:			
How do we graph an exponential or log	arithmic function?		
How do we solve an exponential or loga	arithmic function?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 8.4 Logarithmic Functions	• Understand the relationship	measures:)	F-IF 7e
	between exponential and		F-BF 3
	logarithmic functions.	• Homework	Time Frame:
	• Be able to evaluate logs.	• Warm up exercises	1-2 days
		• Exit Tickets	
		• Group activities	
		• Section quizzes	
		Chapter tests	
		• Cumulative tests	Materials:
		Projects / Presentations	1 extbook: 2004 McDougal Littell
		• Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		• Final Exam	018-23020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 8					
Theme: Exponential and Logarithmic F	Theme: Exponential and Logarithmic Functions				
Essential Questions:					
How do we graph an exponential or loga	arithmic function?				
How do we solve an exponential or loga	rithmic function?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
Section 8.5 Properties of	• Be able to rewrite, expand and	measures:)	A-55E 1, 3		
Logarithms	condense logarithmic equations in	• Homework			
	• Do able to use the abange of base	Homework Worm up exercises	Time Frame:		
	• Be able to use the change of base formula	• Wallin up exercises • Exit Tickets	1-2 days		
	Tormula	Group activities			
		Section quizzes			
		Chapter tests			
		Cumulative tests	Materials [.]		
		 Projects / Presentations 	Textbook: 2004 <i>McDougal Littell</i>		
		 Midterm exam 	Algebra 2 by Larson, ISBN-13: 978-0-		
		• Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 8			
Theme: Exponential and Logarithmic H	Functions		
Essential Questions:			
How do we graph an exponential or loga	arithmic function?		
How do we solve an exponential or loga	arithmic function?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
• Section 96 Solving Europontial	• Do able to colve expension and	following formative and summative	NJSLS MA 9-12 A DEI 11
 Section 8.0 Solving Exponential and Logarithmic Equations 	• Be able to solve exponential and	meusures.)	$\mathbf{F}_{\mathbf{I}} \mathbf{F}_{\mathbf{A}}$
and Logarithnine Equations.	 Be able to identify apparent 	Homework	
	solutions	Warm up exercises	Time Frame:
		Exit Tickets	2 days
		Group activities	
		Section guizzes	
		Chapter tests	
		Cumulative tests	Materials:
		Projects / Presentations	Textbook: 2004 McDougal Littell
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		• Final Exam	618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 9				
Theme: Rational Equations and Function	ons			
Essential Questions:				
How do we graph rational expressions?				
How do we solve rational expressions?				
How do we operate on rational expression	ons?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 9.1 Inverse and Joint	• Be able to distinguish between	measures:)	N-Q 1	
Variation	direct, inverse and joint variation		A-CED 2, 4	
		Homework		
		• Warm up exercises	Time Frame:	
		• Exit Tickets	1 day	
		Group activities		
		Section quizzes		
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		• Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	
			Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 9					
Theme: Rational Equations and Functi	ons				
Essential Questions:					
How do we graph rational expressions?					
How do we solve rational expressions?					
How do we operate on rational expression	ons?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 9.2 Graph Simple Rational	• Be able to graph a rational	measures:)	A-CED 2		
Functions	function in the form of		F-IF 4, 5, 7d+		
	f(x) = p(x) / q(x)	Homework	F-BF 3		
		• Warm up exercises	Time Frame:		
		Exit Tickets	1 day		
		Group activities			
	Section guizzes				
		Chapter tests			
		Cumulative tests	Motorials:		
		• Projects / Presentations	Toxtbook: 2004 McDougal Littell		
		• Midterm exam	Algebra 2 by Larson ISBN 12:078 0		
		• Final Exam	Algebra 2 by Laison, ISBN-13. 978-0-		
			010-23020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 9	CONTENT: Chapter 9			
Theme: Rational Equations and Function	ons			
Essential Questions:				
How do we graph rational expressions?				
How do we solve rational expressions?				
How do we operate on rational expression	ons?			
 How do we operate on rational expression Content (As a result of this learning segment, students will know) Section 9.3 Graphing General Rational Functions 	 Skills (As a result of this learning segment, students will be able to) Know the steps necessary in order to graph a general rational function 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-CED 2, 4 F-IF 4, 7d+Time Frame: 1 dayMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 9					
Theme: Rational Equations and Function	ons				
Essential Questions:					
How do we graph rational expressions?					
How do we solve rational expressions?					
How do we operate on rational expression	ons?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 9.4 Multiply and Divide	• Be able to simplify, multiply and	measures:)	A-APR 7+		
Rational Expressions	divide rational expressions				
		Homework	Time Frame:		
		• Warm up exercises	1 day		
		• Exit Tickets	1 000		
		• Group activities			
		• Section quizzes			
	Chapter tests				
		Cumulative tests	Materials:		
		Projects / Presentations	Textbook: 2004 McDougal Littell		
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-		
		Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 9			
Theme: Rational Equations and Function	ons		
Essential Questions:			
How do we graph rational expressions?			
How do we solve rational expressions?			
How do we operate on rational expression	ons?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 9.5 Addition, Subtraction,	• Be able to add and subtract	measures:)	A-APK /+
and Complex Fractions	rational expressions	Homowork	
		Warm up evercises	Time Frame:
		• Wallin up exercises	1 day
		Croup activities	
		Soction guizzos	
		Section quizzes Chapter tests	
		Cumulative tests	Matarials:
		 Cumulative tests Projects / Presentations 	Textbook: 2004 McDougal Littell
		Midtorm ayam	Algebra 2 by Larson ISBN-13: 978-0-
		Final Exam	618-25020-2
			010 20020 2
			Graphing calculators: Ti-83/84 plus.
			Smart board internet research and
			activities graph papers color pencils
			activities, gruph pupers, color penelis.

CONTENT: Chapter 9			
Theme: Rational Equations and Function	ons		
Essential Questions:			
How do we graph rational expressions?			
How do we solve rational expressions?			
How do we operate on rational expression	ons?	1	
Content (As a result of this learning segment, students will know)Skills (As a result of this learning segment, students will be able to)• Section 9.6 Solving Rational Equations• Know the steps involved and be able to solve a rational expression		Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) • Homework • Warm up exercises • Exit Tickets • Group activities • Section quizzes	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-CED 1 A-REI 1, 2, 11 Time Frame: 1 day
		 Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 12			
Theme: Data Analysis and Statistics			
Essential Questions:			
What is a combination?			
How do we use the normal distribution t	to help us find probabilities?		
What is the difference between a survey	, an experiment and an observational stud	y?	
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 12.2 Combinations and	• Be able to evaluate combinations.	measures:)	A-APR 5+
the Binomial Theorem	• Be able to use combinations to	TT 1	
	find the number of possible	• Homework	Time Frame:
	outcomes to given situations	• Warm up exercises	1 day
		• Exit lickets	5
		• Group activities	
		• Section quizzes	
		Chapter tests	
		• Cumulative tests	Materials:
		Projects / Presentations	Textbook: 2004 McDougal Littell
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		• Final Exam	618-25020-2
			$C_{\rm rescale in a state latence T = 0.2/0.4$ where
			Graphing calculators: 11-85/84 plus.
			Smart board internet research and
			activities graph papers color pencils
			activities, graph papers, color penetis.

CONTENT: Chapter 12				
Theme: Data Analysis and Statistics				
Essential Questions: What is a combination?				
How do we use the normal distribution f	to help us find probabilities?	1.0		
What is the difference between a survey, an experiment and an observational study?				
 Content (As a result of this learning segment, students will know) Section 12.6 Construct and Interpret Binomial Distributions 	 Skills (As a result of this learning segment, students will be able to) Be able to evaluate combinations. Be able to use combinations to find the number of possible outcomes to given situations 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-APR 5+ S-MD 3+ S-MD 7+Time Frame: 2 daysMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus.Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 12	CONTENT: Chapter 12			
Theme: Data Analysis and Statistics				
Essential Questions:				
What is a combination?				
How do we use the normal distribution	to help us find probabilities?			
What is the difference between a survey	, an experiment and an observational stud	ly?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 12.7 Normal Distributions	• Be able to estimate the range of	measures:)	S-ID 4	
	data based upon a normal curve		S-MD 7+	
	• Be able to find percentiles using		Time Frame:	
	the normal distribution	Homework	1 day	
		• Warm up exercises	1 duy	
		• Exit Tickets		
		Group activities		
Section quizzes				
		Chapter tests	Materials:	
		Cumulative tests	Textbook: 2004 McDougal Littell	
		Projects / Presentations	Algebra 2 by Larson, ISBN-13: 978-0-	
		Midterm exam	618-25020-2	
		Final Exam		
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 12			
Theme: Data Analysis and Statistics			
Essential Questions:			
What is a combination?			
How do we use the normal distribution	to help us find probabilities?		
What is the difference between a survey	, an experiment and an observational stud	y?	
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Supplementary: Select and Draw	• Be able to explain how to find a	measures:)	S-IC 1. 3. 4
Conclusions from Samples	simple random sample		S-MD 6+
	• Be able to tell what the purpose of	Homework	9.3.ST.2, 9.3.ST-SM.4
	a good sample is	• Warm up exercises	Time Frame:
		• Exit Tickets	2 days
		Group activities	
		Section quizzes	
		Chapter tests	
		Cumulative tests	Materials [.]
		Projects / Presentations	Textbook: 2004 McDougal Littell
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		Final Exam	618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smort board intermet research and
			Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 12				
Theme: Data Analysis and Statistics				
Essential Questions:				
What is a combination?				
How do we use the normal distribution t	to help us find probabilities?			
What is the difference between a survey, an experiment and an observational study?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Supplementary: Compare Surveys,	• Be able to explain how to collect	measures:)	S-IC 1. 3. 6	
Experiments, and Observational	accurate date from a population		S-MD 6+, /+	
Studies	• Be able to explain the difference	Homework	9.2.12.C.1, 9.3.12.BM.1	
	between experiments and	• Warm up exercises	Time Frame:	
	observational studies	• Exit Tickets	1 day	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 11					
Theme: Sequences and Series	Theme: Sequences and Series				
Essential Questions:					
How can you generate a rule for a numb	per sequence that has a common difference	ce or ratio?			
How can you find the sum of these sequ	iences?				
 Content (As a result of this learning segment, students will know) Section 11.1 An Introduction to Sequences and Series 	 Skills (As a result of this learning segment, students will be able to) Be able to use and understand notation of sequences 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:)	Standards: 8.1.12.A.4 NJSLS MA 9-12 F-IF 3 F-BF 1, 2		
		 Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam 	Time Frame: 1 day Materials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.		

CONTENT: Chapter 11				
Theme: Sequences and Series				
Essential Questions:				
How can you generate a rule for a numb	er sequence that has a common difference	e or ratio?		
How can you find the sum of these sequ	How can you find the sum of these sequences?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 11.2 Arithmetic	• Be able to identify a sequence as	measures:)	F-BF 2	
Sequences and Series	an arithmetic sequence		F-LE 2, 5	
	• Be able to write a general equation	Homework	Time Frame:	
	for an arithmetic sequence	• Warm up exercises	2 days	
	• Be able to find the sum of an	• Exit Tickets		
	arithmetic sequence	• Group activities		
		• Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		 Projects / Presentations 	Textbook: 2004 <i>McDougal Littell</i>	
		• Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		• Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 11			
Theme: Sequences and Series			
Essential Questions:			
How can you generate a rule for a numb	per sequence that has a common difference	e or ratio?	
How can you find the sum of these sequ	iences?		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4
		following formative and summative	NJSLS MA 9-12
• Section 11.3 Geometric Sequences	• Be able to identify a sequence as a	measures:)	A-SSE 4
and Series	geometric sequence		F-BF 2
	• Be able to write a general equation	Homework	F-LE 2, 5
	for a geometric sequence	• Warm up exercises	Time Frame:
	• Be able to find the sum of a	• Exit Tickets	2 days
	geometric sequence	Group activities	
		Section quizzes	
		Chapter tests	
		Cumulative tests	Materials:
		 Projects / Presentations 	Textbook: 2004 McDougal Littell
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-
		Final Exam	618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and
			activities, graph papers, color pencils.

CONTENT: Chapter 11				
Theme: Sequences and Series				
Essential Questions:				
How can you generate a rule for a numb	per sequence that has a common difference	e or ratio?		
How can you find the sum of these sequ	How can you find the sum of these sequences?			
 Content (As a result of this learning segment, students will know) Section 11.4 Infinite Geometric Series 	 Skills (As a result of this learning segment, students will be able to) Be able to find the sum of an infinite geometric series 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:)	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-SSE 3	
		 Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests 	Time Frame: 1-2 days	
		 Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 11				
Theme: Sequences and Series				
Essential Questions:				
How can you generate a rule for a numb	per sequence that has a common difference	e or ratio?		
How can you find the sum of these sequ	How can you find the sum of these sequences?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 11.5 Recursive Rules for	• Be able to write the equation of an	measures:)	F-IF 3	
Sequences	arithmetic sequence		F-BF 1, 2	
	• Be able to write the equation of a	Homework	F-LE 1, 5	
	geometric sequence	Warm up exercises	Time Frame:	
		Exit Tickets	1-2 days	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials [.]	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
			activities, graph papers, color penens.	

CONTENT: Chapter 10				
Theme: Quadratic Relations and Conic	e Sections			
Essential Questions:				
How can we graph the various conic see	ctions?			
How do write the equation of a conic?				
How do we solve a system of quadratics	s?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 10.1 The Distance and	• Be able to use the midpoint,	measures:)	G-GPE 4, 7	
Midpoint Formulas	distance and slope formula			
		Homework		
		• Warm up exercises	Time Frame:	
		• Exit Tickets	1 day	
		Group activities		
		Section quizzes		
Chapter tests				
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
			activities, graph papers, color penens.	

CONTENT: Chapter 10				
Theme: Quadratic Relations and Conic	c Sections			
Essential Questions:				
How can we graph the various conic sec	ctions?			
How do write the equation of a conic?				
How do we solve a system of quadratics	<u>s?</u>			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
Section 10.3 Circles	• Be able to write the equation of a	measures:)	A-CED 2, 3	
	circle		A-REI 10	
	• Be able to graph a circle	Homework	G-GPE 1	
		Warm up exercises		
		Exit Tickets	Time Frame:	
		Group activities	3 days	
		Section quizzes		
• Chapter tests				
		Cumulative tests		
		Projects / Presentations	Materials [.]	
		Midterm exam	Textbook: 2004 McDougal Littell	
		• Final Exam	Algebra 2 by Larson ISBN-13: 978-0-	
			618-25020-2	
			010 25020 2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	
			of the second se	

CONTENT: Chapter 10						
Theme: Quadratic Relations and Conic	c Sections					
Essential Questions:						
How can we graph the various conic sections?						
How do write the equation of a conic?						
How do we solve a system of quadratics	How do we solve a system of quadratics?					
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:			
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4			
		following formative and summative	NJSLS MA 9-12			
• Section 10.4 Ellipses	• Be able to graph an ellipse	measures:)	A-SSE 3			
	identifying major and minor axis	TT	A-CED 2			
	and focus points	• Homework	A-REI IU			
	• Be able to write the equation of an	• Warm up exercises	G-GPE 3+			
	ellipse given vertices and focus	• Exit Tickets	lime Frame:			
	points	• Group activities	5 days			
		Section quizzes				
		Chapter tests				
		Cumulative tests				
		 Projects / Presentations 	Materials:			
		Midterm exam	Textbook: 2004 McDougal Littell			
		Final Exam	Algebra 2 by Larson, ISBN-13: 978-0-			
			618-25020-2			
			Graphing calculators: Ti-83/84 plus.			
			Smort board internet receased and			
			activities graph papers color pencils			
			activities, graph papers, color penens.			

CONTENT: Chapter 10	CONTENT: Chapter 10				
Theme: Quadratic Relations and Conic	e Sections				
Essential Questions:					
How can we graph the various conic see	ctions?				
How do write the equation of a conic?					
How do we solve a system of quadratics	s?	1			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
Section 10.2 Parabolas	• Be able to graph a parabola and	measures:)	A-CED 3, 4		
	identify vertex, focus and directrix		A-REI 10		
	• Be able to write the equation of a	Homework	G-GPE 2		
	parabola given the vertex, focus	• Warm up exercises	Time Frame:		
	and directrix	• Exit Tickets	3 days		
		Group activities			
		Section quizzes			
		Chapter tests			
		Cumulative tests	Materials [.]		
		Projects / Presentations	Textbook: 2004 McDougal Littell		
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-		
		Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 10					
Theme: Quadratic Relations and Conic	c Sections				
Essential Questions:					
How can we graph the various conic see	ctions?				
How do write the equation of a conic?					
How do we solve a system of quadratic	<u>s?</u>				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
Section 10.5 Hyperbola	• Be able to graph a hyperbola and	measures:)	A-SSE 3		
	identify transverse axis, focus and		A-CED 2		
	center	Homework	A-REI 10		
	• Be able to write the equation of a	Warm up exercises	G-GPE 3+		
	hyperbola given the transverse	Exit Tickets	Time Frame:		
	axis, focus and center	Group activities	3 days		
	Section guizzes				
Chapter tests					
		Cumulative tests			
		Projects / Presentations	Matarials		
		Midterm exam	Taxthook: 2004 McDougal Littall		
		Final Exam	Algebra 2 by Larson ISBN 13: 078 0		
			Algebra 2 by Larson, ISBN-15. 978-0-		
			018-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 10			
Theme: Quadratic Relations and Conic	c Sections		
Essential Questions:			
How can we graph the various conic see	ctions?		
How do write the equation of a conic?			
How do we solve a system of quadratics	s?	1	
 Content (As a result of this learning segment, students will know) Section 10.6 Graphing and 	 Skills (As a result of this learning segment, students will be able to) Be able to classify and graph 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:)	Standards: 8.1.12.A.4 NJSLS MA 9-12 A-SSE 3
Classifying Conics	various conic sections	HomeworkWarm up exercises	G-GPE 1, 2, 3+ Time Frame: Note: Section 10.6 will be covered as
		 Exit Tickets Group activities Section quizzes Chapter tests 	part of 10.2, 10.3, 10.4, 10.5
		 Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 10			
Theme: Quadratic Relations and Conic	Sections		
Essential Questions:			
How can we graph the various conic sec	ctions?		
How do write the equation of a conic?			
How do we solve a system of quadratics	s?		
Content (As a result of this learning segment, students will know)	Skills (As a result of this learning segment, students will be able to)	Assessments (The above Essential Questions will be assessed with the	Standards: 8.1.12.A.4
• Section 10.7 Solving Quadratic	• Be able to solve a system of	<i>following formative and summative measures:)</i>	NJSLS MA 9-12 A-REI 7
Systems	quadratic functions using graphing, substitution and addition	• Homework	Time Frame:
	techniques	Warm up exercisesExit Tickets	2 days
		Group activitiesSection quizzes	
		Chapter testsCumulative tests	Materials:
		 Projects / Presentations Midterm exam 	Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0-
		 Final Exam 	618-25020-2
			Graphing calculators: Ti-83/84 plus.
			Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 14			
Theme: Trigonometric Graphs, Identiti	es, and Equations		
Essential Questions:			
How can we graph, translate and reflect	trigonometric functions?		
How do write the equation of a trigonom	netric functions?		
How do we solve a trigonometric equation	on?	1	
 How do we solve a trigonometric equation Content (As a result of this learning segment, students will know) Section 14.1 Graphing Sine, Cosine, and Tangent Functions. Section 14.2 Translations and Reflections of Trigonometric Graphs. 	 Skills (As a result of this learning segment, students will be able to) Be able to graph sine, cosine, and tangent functions Be able to translate and reflect sine and cosine graphs 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) • Homework • Warm up exercises • Exit Tickets • Group activities • Section quizzes • Chapter tests • Cumulative tests • Projects / Presentations • Midterm exam • Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 F-IF 4, 7e F-BF 3 F-TF 4, 5+Time Frame: 2-3 daysMaterials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 14				
Theme: Trigonometric Graphs, Identiti	es, and Equations			
Essential Questions:				
How can we graph, translate and reflect	trigonometric functions?			
How do write the equation of a trigonom	netric functions?			
How do we solve a trigonometric equation	on?	1		
Content (As a result of this learning segment, students will know)	Skills (As a result of this learning segment, students will be able to)	Assessments (The above Essential Questions will be assessed with the	Standards: 8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 14.3 Verifying	• Be able to prove the Pythagorean	measures:)	F-TF 8	
Trigonometric Identities	identity of $\sin^2 x + \cos^2 x = 1$,	G-SRT 7	
C	• Be able to verify various	Homework		
	trigonometric identities	• Warm up exercises	Time Frame:	
	C C	• Exit Tickets	2-3 days	
		Group activities		
		Section guizzes		
Chapter tests				
		Cumulative tests	Materials [.]	
		 Projects / Presentations 	Textbook: 2004 McDougal Littell	
		 Midterm exam 	Algebra 2 by Larson ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities, graph papers, color pencils	
			activities, gruph pupers, color penens.	

CONTENT: Chapter 14				
Theme: Trigonometric Graphs, Identiti	es, and Equations			
Essential Questions:				
How can we graph, translate and reflect	trigonometric functions?			
How do write the equation of a trigonon	netric functions?			
How do we solve a trigonometric equati	on?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segmeni, studenis will be able to)	Questions will be assessed with the	0.1.12.A.4 NISES MA 0 12	
 Section 14.4 Solving 	• Be able to solve trigonometric	poliowing jormalive and summalive	$\Delta_{\rm R}$ FI 11	
 Section 14.4 Solving Trigonometric Equations 	• Be able to solve trigonometric	meusures.)	$F_{T}TF 7+ 8$	
Ingonometric Equations	equations	Homework	1-11 / 1, 0	
		Warm up exercises	Time Frame:	
		 Fyit Tickets 	1-2 days	
		Group activities		
		Section guizzes		
Section quizzes Chapter tests				
		Chapter tests Cumulative tests	Matorials	
		 Culturative tests Projects / Presentations 	Textbook: 2004 McDougal Littall	
		Midterm even	Algebra 2 by Larson ISBN-13, 978-0-	
		Final Exam	618-25020-2	
			010-23020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 14			
Theme: Trigonometric Graphs, Identit	ies, and Equations		
Essential Questions:			
How can we graph, translate and reflect	trigonometric functions?		
How do write the equation of a trigonor	netric functions?		
How do we solve a trigonometric equat	ion?	1	
 How do we solve a trigonometric equation Content (As a result of this learning segment, students will know) Section 14.5 Modeling with Trigonometric Functions 	 Skills (As a result of this learning segment, students will be able to) Be able to model data by using the sine and cosine functions 	Assessments (The above Essential Questions will be assessed with the following formative and summative measures:) Homework Warm up exercises Exit Tickets Group activities Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam	Standards: 8.1.12.A.4 NJSLS MA 9-12 F-TF 5 F-IF 4 S-ID 6 Time Frame: 2 days Materials: Textbook: 2004 McDougal Littell Algebra 2 by Larson, ISBN-13: 978-0-618-25020-2 Graphing calculators: Ti-83/84 plus. Smart board, internet research and activities, graph papers, color pencils.

CONTENT: Chapter 14				
Theme: Trigonometric Graphs, Identities, and Equations				
Essential Questions:				
How can we graph, translate and reflect	trigonometric functions?			
How do write the equation of a trigonor	netric functions?			
How do we solve a trigonometric equation	ion?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 14.6 Using Sum and	• Be able to use the sum and	measures:)	F-TF 7+, 9+	
Difference Formulas	difference formulas to evaluate			
	angles	Homework	Time Frame:	
	• Be able to use the sum and	• Warm up exercises	Algebra 2H: 3 days	
	difference formulas to evaluate	Exit Tickets	rigeora 211. 5 days	
	and simplify an equation	Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
activities, graph papers, color penens.				

CONTENT: Chapter 14				
Theme: Trigonometric Graphs, Identities, and Equations				
Essential Questions:				
How can we graph, translate and reflect	trigonometric functions?			
How do write the equation of a trigonom	netric functions?			
How do we solve a trigonometric equation	on?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 14.7 Using Double-and	• Be able to use double and half	measures:)	F-TF 7+, 9+	
Half-Angle Formulas	angle formulas to evaluate angles			
	• Be able to use double and half	Homework	Time Frame:	
	angles to evaluate and simplify an	• Warm up exercises	Algebra 2H: 3 days	
	equation	• Exit Tickets	Angeora 211. 5 days	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internat research and	
			activities graph papers color pencils	
			activities, graph papers, color penetis.	

CONTENT: Chapter 13				
Theme: Trigonometric Ratios and Functions				
Essential Questions:				
How can we graph a trig function?				
How can we find angles and lengths of s	sides using trigonometry?			
How can we use trig concepts to help us	solve real life situations?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 13.1 Right Triangle	• Be able to name the six trig	measures:)	G-SRT 6, 8	
Trigonometry	functions of an angle			
	• Be able to find the special angles	Homework	Time Frame:	
	for the six trig ratios	• Warm up exercises	2 days	
	• Use right triangle trig to find	• Exit Tickets	2 auj 5	
	missing parts of triangles	Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internet recearch and	
			smart board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 13				
Theme: Trigonometric Ratios and Functions				
Essential Questions:				
How can we graph a trig function?				
How can we find angles and lengths of s	ides using trigonometry?			
How can we use trig concepts to help us	solve real life situations?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 13.2 General Angles and	• Be able to sketch an angle in	measures:)	F-TF 1, 2, 3+	
Radian Measure	standard form		G-C 5	
	• Be able to convert from degrees to	• Homework	Time Frame:	
	radians and radians to degrees	• Warm up exercises	1-2 days	
		• Exit Tickets	1 2 duys	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		 Projects / Presentations 	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and	
			activities, graph papers, color pencils.	
			Smart board, internet research and activities, graph papers, color pencils.	

CONTENT: Chapter 13				
Theme: Trigonometric Ratios and Functions				
Essential Questions:				
How can we graph a trig function?				
How can we find angles and lengths of s	ides using trigonometry?			
How can we use trig concepts to help us	solve real life situations?			
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 13.3 Trigonometric	• Be able to evaluate angles of any	measures:)	F-TF 2, 3+	
Functions of Any Angle	size			
	• Be able to sketch an angle and	Homework	Time Frame:	
	find its reference angle	• Warm up exercises	1-2 days	
		• Exit Tickets	1 2 duys	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			Graphing calculators: Ti-83/84 plus.	
			Smart board internat research and	
			sinal board, internet research and	
			activities, graph papers, color pencils.	

CONTENT: Chapter 13					
Theme: Trigonometric Ratios and Functions					
Essential Questions:					
How can we graph a trig function?					
How can we find angles and lengths of s	sides using trigonometry?				
How can we use trig concepts to help us	solve real life situations?				
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:		
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4		
		following formative and summative	NJSLS MA 9-12		
• Section 13.4 Inverse	• Be able to find angles given the	measures:)	F-BF 4D+		
Trigonometric Functions	values of trigonometric functions		F-TF 6+, 7+		
		Homework	Time Fromes		
		• Warm up exercises	1 2 days		
		Exit Tickets	1-2 days		
		Group activities			
		Section quizzes			
	• Chapter tests				
		Cumulative tests	Materials:		
		Projects / Presentations	Textbook: 2004 McDougal Littell		
		• Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-		
		• Final Exam	618-25020-2		
			Graphing calculators: Ti-83/84 plus.		
			Smort board internet research and		
			sinart board, internet research and		
			activities, graph papers, color pencils.		

CONTENT: Chapter 13				
Theme: Trigonometric Ratios and Functions				
Essential Questions:				
How can we graph a trig function?				
How can we find angles and lengths of	sides using trigonometry?			
How can we use trig concepts to help us	s solve real life situations?	1		
Content (As a result of this learning	Skills (As a result of this learning	Assessments (The above Essential	Standards:	
segment, students will know)	segment, students will be able to)	Questions will be assessed with the	8.1.12.A.4	
		following formative and summative	NJSLS MA 9-12	
• Section 13.5 Law of Sines	• Be able to solve triangles that do	measures:)	F-TF 7+	
	not have a right angle given the		G-SRT 9, 10, 11+	
	conditions of AAS, ASA, and	Homework	Time Frame:	
	SSA	• Warm up exercises	2-3 days	
		• Exit Tickets	2 0 00,0	
		Group activities		
		Section quizzes		
		Chapter tests		
		Cumulative tests	Materials:	
		Projects / Presentations	Textbook: 2004 McDougal Littell	
		Midterm exam	Algebra 2 by Larson, ISBN-13: 978-0-	
		Final Exam	618-25020-2	
			C_{res} = 1 $\frac{1}{2}$ =	
			Graphing calculators: 11-83/84 plus.	
			Smart board internet research and	
			activities graph papers color pencils	
activities, graph papers, color penens.				

CONTENT: Chapter 13				
Theme: Trigonometric Ratios and Functions				
Essential Questions:				
How can we graph a trig function?				
How can we find angles and lengths of	sides using trigonometry?			
How can we use trig concepts to help us	s solve real life situations?			
<i>content</i> (As a result of this learning segment, students will know)	segment, students will be able to)	Assessments (The above Essential Questions will be assessed with the following formative and summative	Standards: 8.1.12.A.4 NISLS MA 9-12	
• Section 13.6 Law of Cosine	• Be able to solve triangles that do not have a right angle given the conditions of SSS, and SAS	 Homework Warm up exercises Exit Tickets Group activities 	F-TF 7+ G-SRT 10, 11+ Time Frame: Algebra 2 CP: 3 day Algebra 2H: 2 day	
		 Section quizzes Chapter tests Cumulative tests Projects / Presentations Midterm exam Final Exam 	Materials: Textbook: 2004 <i>McDougal Littell</i> Algebra 2 by Larson, ISBN-13: 978-0- 618-25020-2 Graphing calculators: Ti-83/84 plus.	
			Smart board, internet research and activities, graph papers, color pencils.	