Pacing Guide	Standard Code & Indicator	Sample Learning Activities	Sample Assessments	Additional Standards
August-September Unit Title: Review of Algebraic Concepts	A-SSE1 Interpret expressions that represent a quantity in terms of its context. A-SSE1A Interpret parts of an expression, such as terms, factors, and coefficients. N-VM.8. (+) Add, subtract, and multiply matrices of appropriate dimensions. 8.SP.1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association. 8.SP.2 Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit (e.g., line of best fit) by judging the closeness of the data points to the line.	-Use variables -Review basic operations with addition, subtraction, multiplication, and division of integers -Identify the following properties: Identity, Commutative, Associative, Distributive, Inverse -Graph Data & coordinates -Interpret and create scatter plots -Add, subtract, and Multiply matrices Instructional Resources: Prentice Hall Algebra Textbook Kutasoftware.com Beyondtheworksheet.com (Lindsey Perro)	Formative Assessments: Checkpoint Quiz Teacher Observation Homework/Classroom Student Participation Journal Entry Problem of the Day Interactive flipchart Summative Assessments: Chapter Test-Review of Algebraic Concepts Graphing Calculator Assessment (Matrices) Benchmark Assessment: BOY Benchmark LinkIt Benchmark Accommodations and Modifications	Interdisciplinary Standard: 2.2.8.MSC.5: Students form teams to solve one problem. Each team has a different problem. They have to effectively communicate with one another to resolve the problem. It is stressed that groups listen to one another to come to a conclusion. Technology Standard: 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.

		Spiral review (Teacher created)		
		Math-Aids.com		
		Teacher created		
		resources		
		Student Technology: Scientific Calculator		
		Chromebook Google Classroom		
		Khan Academy		
		Quizzes.com		
		Quizlet Live desmos.com		
		Teacher Technology: ActivView		
		Flipchart lessons		
		Interactive Activities		
Mid		on the ActivPanel -Solve algebraic	Formative	Interdisciplinary
September –	A-REI.1.	equations: one step,	Assessments:	Standard: W.8.1
Beginning of	Explain each step in solving a simple equation as	two-step, multi-step	Checkpoint Quiz	Students will explain the
October	following from the equality of numbers asserted at the previous step, starting from the	and variables on both sides	Teacher Observation Homework/Classroom	difference between 1 solution, no solution and
Unit Title:	assumption that the original equation has a solution.	Sides	Student Participation	infinitely many solutions
Solving	Construct a	-Solve percent	Journal Entry	using examples to
Equations	viable argument to justify a solution method.	equations	Problem of the Day Interactive flipchart	support.
	A-RE1.3 Solve linear equations and inequalities in	-Use geometric	•	Technology Standard:
	one variable, including equations with coefficients	formulas	Summative	9.4.8.TL.6: Collaborate
	represented by letters.	-Calculate mean,	Assessments: Chapter Test-Equations	to develop and publish work that provides
	A-CED.A1 Create equations and inequalities in one	median, and mode	End of Chapter	perspectives on a
	variable and use them to solve problems. <i>Include</i>		Project-"Putting it all	real-world problem.
	equations arising from linear and quadratic functions, and simple rational and exponential functions.	Instructional Resources:	together"	

	A-CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.	Big Ideas Algebra Textbook <u>Kutasoftware.com</u>	Accommodations and Modifications	
	A-CED.4 Rearrange formulas to highlight a quantity	Beyondtheworksheet. com (Lindsey Perro)		
	of interest, using the same reasoning as in solving equations.	Spiral review (Teacher created)		
		Math-Aids.com		
		Teacher created resources		
		Student Technology: Scientific Calculator Graphing Calculator Chromebook Google Classroom Math IXL Khan Academy Quizzes.com Quizlet Live desmos.com		
		Teacher Technology: ActivView Flipchart lessons Interactive Activities on the ActivPanel		
October		-Solve inequalities	Formative	Interdisciplinary
Unit Title: Solving Inequalities	A-RE1.3 Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters. A-CED.1	-Identify, graph and write solutions	Assessments: Checkpoint Quiz Teacher Observation Homework/Classroom Student Participation Journal Entry	Standard: Physical Education 2.2.8.MSC.5: In our CSI activity, students must work independently and

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Create equations and inequalities in one variable and	-Use addition and	Problem of the Day	cooperatively in order
use them to solve problems. <i>Include equations arising</i>	subtraction to solve	Interactive flipchart	to reach the desired
from linear and quadratic functions, and simple	inequalities		outcome of the activity.
rational and exponential functions.			In the end, students
	-Use multiplication	Summative	evaluated their own
A-CED.3	and division	Assessments:	performance and their
Represent constraints by equations or inequalities, and		Chapter	group.
by systems of	-Solve multi-step	Test-Inequalities	
equations and/or inequalities, and interpret solutions as	inequalities	CSI -Equations and	
viable or nonviable options in a modeling context.		Inequalities	Technology Standard:
•	-Write and solve		9.4.8.TL.6: Collaborate
	compound		to develop and publish
	inequalities	Accommodations and	work that provides
		Modifications	perspectives on a
	-Identify absolute		real-world problem.
	value equations		
	_		
	-Evaluate absolute		
	value inequalities		
	Instructional		
	Resources:		
	Big Ideas Algebra		
	Textbook		
	Kutasoftware.com		
	Beyondtheworksheet.		
	<u>com</u> (Lindsey Perro)		
	Spiral review		
	(Teacher created)		
	Math-Aids.com		
	Teacher created		
	resources		
	Student Technology:		

November Unit Title: Review of Proportion and Similarity: Ratios, Proportions and Percents	8.EE.5 Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. 7.RP.A.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units 7.RP.A.2 Recognize and represent proportional relationships between quantities. 7.RP.A.2.c Represent proportional relationships by equations. 7.SP.7.a Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. 7.SP.7.b Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	Scientific Calculator Graphing Calculator Chromebook Google Classroom Math IXL Prodigy Khan Academy Quizzes.com Quizlet Live desmos.com Teacher Technology: ActivView Flipchart lessons Interactive Activities on the ActivPanel -Solve percent problems – part, whole and percent -Differentiate between rates and ratiosCalculate unit rates -Understand and solve proportions -Identify similarity -Understand and use percent -Differentiate between proportions -Identify similarity -Understand and use percent -Differentiate between percent and fractions -Find the percent of change	Formative Assessments: Checkpoint Quiz Teacher Observation Homework/Classroom Student Participation Journal Entry Problem of the Day Interactive flipchart Summative Assessments: Chapter Test Probability Assessment Accommodations and Modifications	Interdisciplinary Standard: W.8.1 An "error" filled assessment is given to the students. Students must find the errors made based on the current topic and explain the error that was made. They will highlight the mistake and provide a clear explanation. Technology Standards: 9.4.8.TL.6: Collaborate to develop and publish work that provides perspectives on a real-world problem.
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	-Connect ratios and		
7.SP.8.a Understand that, just as with simple events,	probability		
the probability of a	•		
compound event is the fraction of outcomes in the	-Determine		
sample space	probability		
for which the compound event occurs.	1		
Tor which the compound even occurs.	-Differentiate between		
7.SP.7.b Represent sample spaces for compound events	independent and		
using methods	dependent		
such as organized lists, tables and tree diagrams. For an	dependent		
event	Instructional		
described in everyday language (e.g., "rolling double	Resources:		
	Resources.		
sixes"), identify the outcomes in the sample space which	Big Ideas Algebra		
	Textbook		
compose the	Textbook		
event	Kutasoftware.com		
	Kutasortware.com		
	Davion dth assorbach act		
	Beyondtheworksheet.		
	com (Lindsey Perro)		
	Spiral review		
	(Teacher created)		
	Made Aide and		
	Math-Aids.com		
	Too ah an anaata d		
	Teacher created		
	resources		
	C4		
	Student Technology:		
	Scientific Calculator		
	Graphing Calculator		
	Chromebook		
	Google Classroom		
	Math IXL		
	Prodigy		
	Khan Academy		
	Quizzes.com		
	Quizlet Live		
	desmos.com		

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		Teacher Technology: ActivView Flipchart lessons Interactive Activities on the ActivPanel		
End of		-Analyze and interpret	Formative	Interdisciplinary
November -	8.F.1 Understand that a function is a rule that assigns to	graphs	Assessments:	Standard W.8.1
December	each input exactly	TT 1 . 1 1 .*	Checkpoint Quiz	Students will be given
TT 14 75141	one output. The graph of a function is the set of ordered	-Understand relations	Teacher Observation	three types of methods
Unit Title:	pairs consisting of an input and the corresponding	and functions	Homework/Classroom	that show linear
Functions	output.1	Annly Domain and	Student Participation Journal Entry	equations (table, graph
	8.F.2 Compare properties (e.g., rate of change,	-Apply Domain and Range in a function	Problem of the Day	and an equation). Students must write a
	intercepts, domain and range) of two functions each	Kange in a function	Interactive flipchart	paragraph stating which
	represented in a different way (algebraically,	-Use vertical line test	interactive inpenart	of the three examples
	graphically, numerically in tables, or by verbal	and mapping to		has the greatest slope
	descriptions).	determine	Summative	and which has the least
	descriptions).	functionality	Assessments:	slope. Students must
	8.F.3 Interpret the equation $y = mx + b$ as defining a		Chapter Test- Functions	provide explanations
	linear function, whose	-Understand function	Linear Functions Project	with their findings.
	graph is a straight line; give examples of functions that	rules	,	S
	are not linear.			Technology Standard:
		-Make a function	Accommodations and	9.4.8.TL.6: Collaborate
		table	<u>Modifications</u>	to develop and publish
	8.F.4. Construct a function to model a linear			work that provides
	relationship between two	-Create a function		perspectives on a
	quantities. Determine the rate of change and initial	graph		real-world problem.
	value of the			
	function from a description of a relationship or from	-Write a rule		
	two (x, y) values, including reading these from a table	77 1 . 111 .		
	or from a graph. Interpret the rate of change and initial	-Understand direct		
	value of a linear function in terms of the situation it	variation		
	models, and in terms of its graph or a table of values.	-Identify number		
	F-IF.A.1 Understand that a function from one set	patterns		
	(called the domain) to another set (called the range)	-Understand an		
	assigns to each element of the domain exactly one	arithmetic sequence		
	element of the range. If f is a function and x is an	ariamiene sequence		
	element of its domain, then $f(x)$ denotes the output of f			
	refinent of its domain, then $f(x)$ denotes the output of f			

8th Grade Mathematics Algeb	ra Curriculum Map 2023
corresponding to the input x . The graph of f is the graph	-Determine non-linear
of the equation $y = f(x)$.	equations can be functions
F-IF.A.2 Use function notation, evaluate functions for	Tunctions
inputs in their domains, and interpret statements that	Instructional
use function notation in terms of a context.	Resources:
F-IF.A.3 Recognize that sequences are functions,	Big Ideas Algebra
sometimes defined recursively, whose domain is a	Textbook
subset of the integers.	Vistara flysana a am
F-IF.B.4 For a function that models a relationship	<u>Kutasoftware.com</u>
between two quantities, interpret key features of graphs	Beyondtheworksheet.
and tables in terms of the quantities, and sketch graphs	com (Lindsey Perro)
showing key features given a verbal description of the relationship.	Spiral review
Telationship.	(Teacher created)
F-IF.B.5 Relate the domain of a function to its graph	Moth Aids som
and, where applicable, to the quantitative relationship it describes.	Math-Aids.com
describes.	Teacher created
F-BF.A.2 Write arithmetic and geometric sequences	resources
both recursively and with an explicit formula, use them to model situations, and translate between the two	Student Technology:
forms.*	Scientific Calculator
	Graphing Calculator
	Chromebook Google Classroom
	Math IXL
	Prodigy
	Khan Academy Quizzes.com
	Quizlet Live
	<u>desmos.com</u>
	Teacher Technology:
	ActivView
	Flipchart lessons
	Interactive Activities

on the ActivPanel

End of	oth Grade Mathematics Augebi	-		Intoudigainlinan
	A CDD A C	-Determine slope	Formative	Interdisciplinary
December -	A-CED.2 Create equations in two or more variables to	D	Assessments:	Standard W.8.1 Students
January	represent relationships between quantities; graph	-Determine rate of	Checkpoint Quiz	will be given various
	equations on coordinate axes with labels and scales.	change	Teacher Observation	forms of linear equations.
Unit Title:			Homework/Classroom	Students must write and
Linear	8.EE.6 Use similar triangles to explain why the slope <i>m</i>	-Identify slope	Student Participation	defend their choice on
Relationships	is the same between	formula	Journal Entry	which linear equation has
(Slope)	any two distinct points on a non-vertical line in the		Problem of the Day	the steepest slope. (The
	coordinate plane; derive the equation $y = mx$ for a line	-Find negative and	Interactive flipchart	three items given are an
	through the origin and the	positive slope	Graphing Calculator	equation, table, and
	equation $y = mx + b$ for a line intercepting the vertical		Assignments	graph).
	axis at b.	-Understand		
		undefined and zero	Summative	Technology Standard:
	8.EE.7.a Solve linear equations in one variable. Give	slopes	Assessments:	9.4.8.TL.6: Collaborate
	examples of linear equations in one variable with one		Chapter Test	to develop and publish
	solution, infinitely many solutions, or no solutions.	-Graph and write an	Rap Song - Slope	work that provides
	Show which of these possibilities is the case by	equation of undefined	(Parallel and	perspectives on a
	successively transforming the given equation into	and zero slopes	Perpendicular Slopes)	real-world problem.
	simpler forms, until an equivalent equation of the form			_
	x = a, $a = a$, or $a = b$ results (where a and b are	-Determine slope		
	different	Intercept form	Accommodations and	
	numbers).	•	Modifications	
		-Understand and solve		
	8.EE.7.b Solve linear equations with rational number	linear equations		
	coefficients, including	•		
	equations whose solutions require expanding	-Identify y-intercept		
	expressions using			
	the distributive property and collecting like terms.	-Understand standard		
		form		
	8.G.1 Verify experimentally the properties of rotations,			
	reflections, and translations	-Identify x-intercept		
		1		
	A-CED.A.2 Create equations in two or more variables	-Understand		
	to represent relationships between quantities; graph	horizontal and vertical		
	equations on coordinate axes with labels and scales.	lines		
	A-REI.D.10 - Understand that the graph of an equation			
	in two variables is the set of all its solutions plotted in	-Identify point-slope		
	the coordinate plane, often forming a curve (which	form		
	could be a line).			
	(1 (1 (1 (1 (1 (1 (1 (1 (1 (1	-Use a table		
L		Obe a more		

8th Grade Mathematics Algebra	ra Curriculum Map 2023
F-IF.B.4 - For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. F-IF.B.5 - Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. F-IF.B.6 - Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. F-IF.C.7 - Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. F-IF.C.7a - Graph linear and quadratic functions and show intercepts, maxima, and minima.	-Identify parallel and perpendicular lines -Interpret and create scatter plots -Define and identify absolute value -Understand and solve equations -Identify translations Instructional Resources:
different but equivalent forms to reveal and explain different properties of the function. F-IF.C.9 - Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). F-BF.A1 - Write a function that describes a relationship between two quantities. F-BF.A1.a - Determine an explicit expression, a recursive process, or steps for calculation from a context	Big Ideas Algebra Textbook Kutasoftware.com Beyondtheworksheet. com (Lindsey Perro) Spiral review (Teacher created) Math-Aids.com Teacher created resources Student Technology: Scientific Calculator
	Graphing Calculator Chromebook

	·			
		Google Classroom		
		Math IXL		
		Khan Academy		
		Quizzes.com		
		<u>Quizlet Live</u>		
		desmos.com		
		Teacher Technology:		
		ActivView		
		Flipchart lessons		
		Interactive Activities		
		on the ActivPanel		
February		-Solve linear	Formative	Interdisciplinary
·	A-CED.A.2 Create equations in two or more variables	equations by graphing	Assessments:	Standard RI 8.7 In small
Unit Title:	to represent relationships between quantities; graph		Checkpoint Quiz	groups, students have to
Systems of	equations on coordinate axes with labels and scales.	-Solve linear	Teacher Observation	decide whether graphing,
Equations	1	equations by	Homework/Classroom	substitution or the
1	A-CED.A.3 Represent constraints by equations or	substitution and	Student Participation	elimination method
	inequalities, and by systems of equations and/or	elimination	Journal Entry	would be the most
	inequalities, and interpret solutions as viable or		Problem of the Day	effective way to solve the
	nonviable options in a modeling context.	-Apply linear systems	Interactive flipchart	problem.
			Graphing Calculator	Freezes
	A-REI.C.5. Prove that, given a system of two	-Understand and solve	Assignments	
	equations in two variables, replacing one equation by	linear inequalities	8 1 11	
	the sum of that equation and a multiple of the other	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Summative	Technology Standard:
	produces a system with the same solutions.	-Identify and solve	Assessments:	9.4.8.TL.6: Collaborate
		systems of linear	Chapter Test	to develop and publish
	A-REI.C.6 Solve systems of linear equations exactly	inequalities.	End of Chapter Project-	work that provides
	and approximately (e.g., with graphs), focusing on	1	Systems of Equations	perspectives on a
	pairs of linear equations in two variables.	-Use quadratic		real-world problem.
		functions to show	Accommodations and	
		how points of	Modifications	
	A-REI.D.10 Understand that the graph of an equation	intersection can be		
	in two variables is the set of all its solutions plotted in	determined		
	the coordinate plane, often forming a curve (which			
	could be a line).	Instructional		
	, '	Resources:		

	A-REI.D.11 Explain why the <i>x</i> -coordinates of the points where the graphs of the equations $y = f(x)$ and $y = g(x)$ intersect are the solutions of the equation $f(x) = g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$	Big Ideas Algebra Textbook Kutasoftware.com Beyondtheworksheet. com (Lindsey Perro)		
	and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.	Spiral review (Teacher created) Math-Aids.com		
	A-REI.D.12 Graph the solutions to a linear inequality in two variables as a halfplane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.	Teacher created resources Student Technology: Scientific Calculator		
		Graphing Calculator Chromebook Google Classroom Math IXL Prodigy Khan Academy		
		Quizzes.com Quizlet Live desmos.com Teacher Technology:		
		ActivView Flipchart lessons Interactive Activities on the ActivPanel		
End of	8.EE.1 Know and apply the properties of integer	-Understand and use	Formative	Interdisciplinary
February -	exponents to generate	exponents, including	Assessments:	Standard: ELA
Mid March	equivalent numerical expressions.	the use of zero and	Checkpoint Quiz Teacher Observation	SL.8.1D Students will go to the board and share
	8.EE.2 Use square root and cube root symbols to	negative powers	Homework/Classroom	how to solve the scientific
	represent solutions to equations of the form $x^2 = p$ and	-Simplify exponents	Student Participation	notation word problems.
	p represent solutions to equations of the form $xz - p$ and	-ompiny exponents	Student i arneipanon	notation word provicins.

TI 1. TD1.I	oth Grade Wathernaties Augebr	- Curriculum mup 2		G. 1 . 311
Unit Title:	x3 = p, where p is a positive rational number. Evaluate		Journal Entry	Students will have to
Exponents and	square roots of small perfect squares and cube roots of	-Identify and use the	Problem of the Day	analyze how the student
Exponential	small perfect cubes. Know that $\sqrt{2}$ is irrational.	Multiplication	Interactive flipchart	completed the process
Function		property	Graphing Calculator	and either make changes
	8.EE.3 Use numbers expressed in the form of a single		Assignments	to the problem or concur.
	digit times an integer	-Understand powers		Students will be selected
	power of 10 to estimate very large or very small	of a power	Summative	through a volunteer basis.
	quantities, and to express how many times as much one		Assessments:	
	is than the other.	-Understand product	Chapter Test	Technology Standard:
		to a power	Exponential Growth	9.4.8.TL.6: Collaborate
		to a power	Project	to develop and publish
	8.EE.4 Perform operations with numbers expressed in	-Identify and use the	Troject	work that provides
	scientific notation, including problems where both		Accommodations and	
		division property		perspectives on a
	decimal and scientific notation are	TT 1 4 1 1	Modifications	real-world problem.
	used. Use scientific notation and choose units of	-Understand and use		
	appropriate size for measurements of very large or very	scientific notation		
	small quantities (e.g., use millimeters per year for			
	seafloor spreading). Interpret scientific	-Identify geometric		
	notation that has been generated by technology.	sequences		
	F-IF.C.8 Write a function defined by an expression in	-Evaluate and graph		
	different but equivalent forms to reveal and explain	exponential functions		
	different properties of the function.			
	· ·	-Understand the		
	F-IF.C.8b Use the properties of exponents to interpret	concept of growth and		
	expressions for exponential functions. For example,	decay		
	identify percent rate of change in functions such as y =			
	(1.02)t, $y = (0.97)t$, $y = (1.01)12t$, $y = (1.2)t/10$, and	Instructional		
	classify them as representing exponential growth or	Resources:		
	decay.	itesources.		
	accuj.	Big Ideas Algebra		
	F-LE.A.1a Prove that linear functions grow by equal	Textbook		
	differences over equal intervals, and that exponential	ICALUUUK		
		Kutasoftware.com		
	functions grow by equal factors over equal intervals.	Kutasuttwate.cuiii		
	EIEAth December (March 1991)	Bevondtheworksheet.		
	F-LE.A.1b Recognize situations in which one quantity	com (Lindsey Perro)		
	changes at a constant rate per unit interval relative to	(Linusey Perro)		
	another.	Cnirol ravious		
		Spiral review		
		(Teacher created)		

	F-LE.A.1c Recognize situations in which a quantity	•		
	grows or decays by a constant percent rate per unit	Math-Aids.com		
	interval relative to another.			
		Teacher created		
	F-LE.A.2 Construct linear and exponential functions,	resources		
	including arithmetic and geometric sequences, given a			
	graph, a description of a relationship, or two			
	input-output pairs (include reading these from a table).			
	imput cutput puns (metaur rounng meta nem u tuere).	Student Technology:		
	F-LE.A.3 Observe using graphs and tables that a	Scientific Calculator		
	quantity increasing exponentially eventually exceeds a	Graphing Calculator		
	quantity increasing linearly, quadratically, or (more	Chromebook		
	generally) as a polynomial function.	Google Classroom		
	generally) as a perguental random	Math IXL		
		Prodigy		
		Khan Academy		
		Quizzes.com		
		Quizlet Live		
		desmos.com		
		Teacher Technology:		
		ActivView		
		Flipchart lessons		
		Interactive Activities		
		on the ActivPanel		
March	A-APR.A.1 Understand that polynomials form a	-Add and Subtract	Formative	Interdisciplinary
	system analogous to the integers, namely, they are	polynomials	Assessments:	Standard W.8.1 An
Unit Title:	closed under the operations of addition, subtraction,		Checkpoint Quiz	"error" filled assessment
Polynomials	and multiplication; add, subtract, and multiply	-Multiply	Teacher Observation	is given to the students.
and Factoring	polynomials.	polynomials by a	Homework/Classroom	Students must find the
		monomial, binomial	Student Participation	errors made based on the
	A-APR.2 . Know and apply the Remainder Theorem:	and trinomial	Journal Entry	current topic and explain
	For a polynomial $p(x)$ and a number a , the remainder	T / 1 1/1	Problem of the Day	the error that was made.
	on division by $x - a$ is $p(a)$, so $p(a) = 0$ if and only if $(x - a)$	-Factor and multiply	Interactive flipchart	They will highlight the
	-a) is a factor of $p(x)$.	binomials	Graphing Calculator	mistake and provide a
	A ADD 5 (1) I/ 1 1 (1 D) 1 1 TH	 TT 1	Assignments	clear explanation.
	A-APR.5. (+) Know and apply the Binomial Theorem	-Understand special	G 4.	
	for the expansion of $(x+y)$ n in powers of x and y for a	cases	Summative	
	positive integer n , where x and y are		Assessments:	Technology Standard:
			Chapter Test	

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any numbers, with coefficients determined for example	-Factor trinomials &		9.4.8.TL.6: Collaborate
by Pascal's Triangle.1	trinomial special	Accommodations and	to develop and publish
	cases	<u>Modifications</u>	work that provides
			perspectives on a
A-SSE.2 Use the structure of an expression to identify	-Factor trinomials by		real-world problem.
ways to rewrite it.	grouping		r
ways to leville it.	-Divide polynomials		
A-SSE.A.1a Interpret parts of an expression, such as	using long division		
terms, factors, and coefficients.	using long division		
terms, factors, and coefficients.	T41		
A COT A 41 I A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Instructional		
A-SSE.A.1b Interpret complicated expressions by	Resources:		
viewing one or more of their parts as a single entity.			
	Big Ideas Algebra		
	Textbook		
	Kutasoftware.com		
	Beyondtheworksheet.		
	com (Lindsey Perro)		
	Spiral review		
	(Teacher created)		
	(
	Math-Aids.com		
	THE THE STATE OF T		
	Teacher created		
	resources		
	resources		
	Student Technology:		
	Scientific Calculator		
	Graphing Calculator		
	Chromebook		
	Google Classroom		
	Math IXL		
	<u>Prodigy</u>		
	Khan Academy		
	Quizzes.com		
	Quizlet Live		
	desmos.com		

		Teacher Technology:		
		ActivView		
		Flipchart lessons		
		Interactive Activities		
		on the ActivPanel		
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April	A-SSE.3.a Choose and produce an equivalent form of	-Create and interpret	Formative	Interdisciplinary
	an expression to reveal and explain properties of the	quadratic graphs	Assessments:	Standard: W.8.1 In the
** * ** ***	quantity represented by the expression.		Checkpoint Quiz	Angry Birds project,
Unit Title:	Factor a quadratic expression to reveal the zeros of the	-Identify and graph	Teacher Observation	students have to solve,
Quadratic	function it	parabolas	Homework/Classroom	graph and then explain
Equations	defines.		Student Participation	the various quadratic
		-Identify and use	Journal Entry	results in paragraph form
	A-SSE.3.b Complete the square in a quadratic	standard form	Problem of the Day	using key vocabulary
	expression to reveal the maximum or minimum value		Interactive flipchart	and applying proper
	of the function it defines.	-Compare widths of	Graphing Calculator	formulas. 25% of their
		parabolas	Assignments	grade is based on their
	A-REI.4 Solve quadratic equations in one variable.		_	explanation of the
		-Identify and	Summative	project.
	A-REI.4 a Use the method of completing the square to	understand quadratic	Assessments:	
	transform any quadratic equation in x into an equation	functions	Chapter Test	Technology Standard:
	of the form $(x-p)2 = q$ that has the same solutions.		Angry Birds Parabola	9.4.8.TL.6: Collaborate
	Derive the quadratic formula from this form.	-Graph equations and	Project	to develop and
		inequalities		publish work that
	A-REI.4.b Solve quadratic equations by inspection	moquanios	Accommodations and	provides
	(e.g., for $x2 = 49$), taking	-Estimate square roots	Modifications	perspectives on a
	square roots, completing the square, the quadratic	-Find square roots of	<u>iviodiffections</u>	real-world problem.
	formula and factoring, as appropriate to the initial form	rational numbers and		Tour World proofein.
	of the equation. Recognize when the quadratic formula	irrational numbers		
	gives complex solutions	mational numbers		
	and write them as $a \pm bi$ for real numbers a and b .	-Identify perfect		
	and write them as $u \perp vi$ for real numbers u and v .			
		squares		
	A ADD 211 (C) C 1 (1 1 1 (11)			
	A-APR.3 Identify zeros of polynomials when suitable	-Solve quadratic		
	factorizations are available, and use the zeros to	equations by graphing		
	construct a rough graph of the function defined by the			
	polynomial.	-Solve quadratic		
		equations by factoring		
	A-CED.A.1 Create equations and inequalities in one	(zero product		
	variable and use them to solve problems. <i>Include</i>	property)		I

 8th Grade Mathematics Algebi		
equations arising from linear and quadratic functions,	-Solve quadratic	
and simple rational and exponential functions.	equations by	
	completing the square	
F-IF.C.7 Graph functions expressed symbolically and		
show key features of the graph, by hand in simple cases	-Solve quadratic	
and using technology for more complicated cases.★	equations by using the	
	quadratic formula	
F-IF.C.7a Graph linear and quadratic functions and		
show intercepts, maxima, and minima.	-Understand linear	
	and exponential	
F-IF.7b Graph square root, cube root, and	growth	
piecewise-defined functions, including step functions		
and absolute value functions.	Instructional	
	Resources:	
F-IF.7c Graph polynomial functions, identifying zeros	Die Ideas Aleabas	
when suitable factorizations are available, and showing	Big Ideas Algebra Textbook	
end behavior.	Textbook	
E IEC 9 Write a function defined by an approacion in	Kutasoftware.com	
F-IF.C.8 Write a function defined by an expression in different but equivalent forms to reveal and explain	<u>Kutasortware.com</u>	
different properties of the function.	Beyondtheworksheet.	
different properties of the function.	com (Lindsey Perro)	
F-IF.C.8a Use the process of factoring and completing	(Emase) Terro)	
the square in a quadratic function to show zeros,	Spiral review	
extreme values, and symmetry of the graph, and	(Teacher created)	
interpret these in terms of a context.		
interpret these in terms of a context.	Math-Aids.com	
F-IF.C.9 Compare properties of two functions each		
represented in a different way (algebraically,	Teacher created	
graphically, numerically in tables, or by verbal	resources	
descriptions).		
* '		
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	Prodigy	
	Khan Academy	

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		Quizzes.com Quizlet Live		
		desmos.com		
		<u>desmos.com</u>		
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		Interactive Activities		
		on the ActivPanel		
End of April	A-REI.2 Solve simple rational and radical equations in	-Simplify radicals	Formative	Interdisciplinary
-May	one variable, and give examples showing how	II. Dedhe e e e e	Assessments:	Standard: ELA SL.8.1
Unit Title:	extraneous solutions may arise.	-Use Pythagorean Theorem	Checkpoint Quiz Teacher Observation	Stations will be set up in the classroom for students
"Radical	A-APR.4. Prove polynomial identities and use them to	Theorem	Homework/Classroom	to be able to complete
equations and	describe numerical relationships.	-Use distance and	Student Participation	various tasks on the
expressions"	describe numerical relationships.	midpoint formula	Journal Entry	Pythagorean Theorem
• inpressions	8.G.6. Explain a proof of the Pythagorean Theorem and		Problem of the Day	(application). They will
	its converse.	-Understand radical	Interactive flipchart	read the word problems
		expressions	Graphing Calculator	then complete the task at
			Assignments	hand. After they attempt
	8.G.7 Apply the Pythagorean Theorem to determine	-Solve radical		the problem
	unknown side lengths	equations	Summative	independently- they will
	in right triangles in real-world and mathematical		Assessments:	have the chance to
	problems in two and	-Graph square root	Chapter Test	critique each other's work
	three dimensions.	functions	Pythagorean Theorem Challenge	and provide feedback on how to solve the problem
	8.G.8 Apply the Pythagorean Theorem to find the	-Understand that	Chanenge	in an efficient manner.
	distance between two	some solutions may		in an efficient manner.
	points in a coordinate system.	or may not be	Accommodations and	Technology Standard:
	points in a coordinate system.	extraneous solutions	Modifications	9.4.8.TL.6: Collaborate
	A-REI-D.10 Understand that the graph of an equation			to develop and publish
	in two variables is the set of all its solutions plotted in	-Use polynomial		work that provides
	the coordinate plane, often forming a curve (which	identity property to		perspectives on a
	could be a line).	find Pythagorean		real-world problem.
		triples		
		Turatum attar -1		
		Instructional Resources:		
		ixesources:		
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	oth Grade Mathematics Algebi			
		Big Ideas Algebra Textbook		
		Kutasoftware.com		
		Beyondtheworksheet. com (Lindsey Perro)		
		Spiral review (Teacher created)		
		Math-Aids.com		
		Teacher created resources		
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		Teacher Technology: ActivView Flipchart lessons Interactive Activities on the ActivPanel		
End of May-June	A-APR.6 Rewrite simple rational expressions in different forms; write $a(x)/b(x)$ in the form $q(x) + r(x)/b(x)$, where $a(x)$, $b(x)$, $q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more	-Understand inverse variation -Graph rational functions	Formative Assessments: Checkpoint Quiz Teacher Observation Homework/Classroom	Interdisciplinary Standard: W.8.2 Students will learn a topic from the chapter and present the
	complicated examples, a computer algebra system.	16110110110	Student Participation	information to the class.

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Unit Title:		-Simplify, Multiply,	Journal Entry	They will do this in
"Rational	A-APR.7. Understand that rational expressions form a	Divide, Add and	Problem of the Day	small groups. They
Expressions"	system analogous to the rational numbers, closed under	Subtract Rational	Interactive flipchart	must organize the key
	addition, subtraction, multiplication, and division by a	expressions	Graphing Calculator	information, provide
	nonzero rational expression; add, subtract, multiply,		Assignments	examples, and
	and divide rational expressions.	-Divide polynomials		demonstrate a clear
			Summative	understanding of the
	A-REI.2 Solve simple rational and radical equations in	-Understand and	Assessments:	topic.
	one variable, and give examples showing how	identify combinations	Chapter Test	_
	extraneous solutions may arise.	and permutations	Student	Technology Standard:
			Presentations-Rational	9.4.8.TL.6: Collaborate
		-Solve rational	Expressions	to develop and publish
		equations		work that provides
				perspectives on a
		Instructional	Benchmark:	real-world problem.
		Resources:	EOY Math Benchmark	
			LinkIt Benchmark	
		Big Ideas Algebra		
		Textbook		
			Accommodations and	
		Kutasoftware.com	<u>Modifications</u>	
		Beyondtheworksheet.		
		<u>com</u> (Lindsey Perro)		
		Spiral review		
		(Teacher created)		
		Math-Aids.com		
		<u>Iviaui-Aius.com</u>		
		Teacher created		
		resources		
		resources		
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		Prodigy		

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	on the ActivPanel		

Alternate Assessments: CSI Equation and Inequalities Activity; Angry Birds Parabola Project; Systems of Equations End of Unit Project

21st Century Standards: 9.1.8.A.2 and 9.1.8.D.5

21st Century Skills: Critical thinking, Creativity, Collaboration, Communication and Technology Literacy

Career Ready Practices: CRP 2, CRP 4, CRP 5, CRP 6, CRP 8 & 11