Algobro 2				
Pacing	Algebra 2 Pacing Guide			
Glencoe/McGra	w-Hill Resources			
Algebra 2 Teacher Textbook Resources	Additional Technology Teaching Resources			
 Textbook Primary Resources: Textbook: Glencoe McGraw-Hill Algebra 2 Teacher Textbook resources: <u>www.connected.mcgraw-hill.com\connected</u> Textbook sign in: <u>www.glencoe.com</u> Workbook: Study Guide and Intervention Algebra 2 	 www.smarttech.com www.discoverystreaming.com www.knanacademy.com www.youtube.com Website(s): www.teachingtoday.glencoe.com – Gives secondary teachers practical strategies and material that inspire excellence and innovation in teaching 			
 Additional Resources: Skills Practice: <u>www.connected.mcgraw-hill.com\connected</u> Word Problem Practice: <u>www.connected.mcgraw-hill.com\connected</u> Weekly Standards Review – Glencoe McGraw-Hill 	 Florida FCAT /EOC Standards practice <u>www.fcatexplorer.com</u> Common Core Standards and Engaging Activities/Projects <u>www.CPALMS.org</u> - http://www.floridastandards.org/homepage/index.aspx Reproducible Worksheets <u>www.kutasoftware.com</u> www.edhelper.com 			
Graphic Calculator Activity: Graphic Calculator Activity (inside booklet)	Ipads and Tutorial and Re-teaching Sites: • <u>www.mathtv.com</u> • <u>www.coolmath.com</u> • <u>www.math.com</u> • <u>www.regentsprep.org</u> • <u>www.thatquiz.com</u> Coaching Resources and FCIM tests • Data Director: https://www98.achievedata.com/gadsden			
	Bata Breaton <u>intepsi// intersolutineredatateon/Baasach</u>			

Course Pacing Guide Common Core Standards Activity site: WWW.CPALMS.ORG

Incorporate Common Core 8 Mathematical Practices

- > Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- > Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- > Attend to precision
- Look for and make use of structure
- > Look for and express regularity in repeated reasoning

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Getting Started	with Chapter	Unit Essential Question:		
0/Prerequiste Chapter 0		How do you prepare for success in Algebra 2?		
Semester: Semester 1	Grading Period: 1			
Concept:	Junctions	Concept:	Concept:	
Pages P4- P5	unctions	P6-P7	P7-P8	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.A.2.4 - Determine	the domain and range of	MA.912.A.4.2- Add, subtract, and multiply	MA.912.A.4.3- Factor polynomial expressions	
a relation		polynomials		
Common Core Standard(s)	:	Common Core Standard(s):	Common Core Standard(s):	
Domain: Sooing Structure	in Expressions	Domain: Socing structure in Expressions	Domain: Arithmetic with Polynomials and Pational	
A SSE 1a 1b 2: Interpret the structure of		A.SSE.1a.1b.2: Interpret the structure of	Expressions	
expressions		expressions A.APR.1: Perform arithmetic operations on polynomials. <i>Beyond quadratic</i>		
		A.SSE.4: Write expressions in equivalent forms to		
		solve problems	A.APR.2,3: Understand the relationship between zeros and factors of polynomials	
		Domain: Arithmetic with Polynomials and Rational		
		Expressions		
		A.APR.1: Perform arithmetic operations on		
		polynomials. Beyond quadratic		
Lesson Essential Question:	:	Lesson Essential Question:	Lesson Essential Question:	
How do you identify the do	omain and range of	How do you apply the distributive property (Foil	How do you apply special products method and	
TUNCTIONS?		method) to multiply binomials?	ractors and sum method to factor trinomials?	
			How do you simplify rational expressions ?	

Course Pacing Guide				
Vocabulary:	Vocabulary:	Vocabulary:		
 Domain Range Quadrants Mapping Functions 	 Binomials FOIL method Quadratic Trinomial 	 Distributive property Polynomials Trinomials Special products 		
Resources: Common Core Standards and Engaging Activities/Projects <u>www.CPALMS.org</u> - http://www.floridastandards.org/homepage/index. aspx	Resources: Common Core Standards and Engaging Activities/Projects <u>www.CPALMS.org</u> - http://www.floridastandards.org/homepage/index. aspx	Resources: Common Core Standards and Engaging Activities/Projects <u>www.CPALMS.org</u> - http://www.floridastandards.org/homepage/index. aspx		
 Reproducible Worksheets <u>www.kutasoftware.com</u> <u>www.edhelper.com</u>See Resource Page for Websites 	 Reproducible Worksheets <u>www.kutasoftware.com</u> <u>www.edhelper.com</u> 	 Reproducible Worksheets <u>www.kutasoftware.com</u> <u>www.edhelper.com</u> 		

Course Code: 1200330	Course Name: Algebra 2 - Glencoe McGraw-Hill			
Unit Title: Getting Started with Chapter	Unit Essential Question:			
0/Prerequiste Chapter 0	How do you prepare for success in Algebra 2?			
Semester: Semester 1 Grading Period: 1				
Concept:	Concept:	Concept:		
Section 0-4 The Counting Principle	Section 0-5 Permutations and Combinations	Section 0-6 Congruent and Similar Figures		
Pages P9-P10	P12-P14 P15-P16			
NGSSS Standard(s):	NGSSS Standard(s):	NGSSS Standard(s):		
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):		
	Domain: NONE			
Domain: Using Probability to make decisions	Domain: Using Probability to make decisions			
Model	Model			
(+) S.MD.6,7 : Use probability to evaluate	(+) S.MD.6,7 : Use probability to evaluate			
outcomes of decisions.	outcomes of decisions.			
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you use the fundamental counting principle	Apply formulas of permutations and combinations How do you reason and identify how to use			
to find outcomes involving independent and	to solve problems. congruent and similar figures to solve real			
dependent events?		problems?		
How do you solve problems involving permutations		How do you use the Pythagorean theorem to solve		
and combinations?		real-world problems?		
Vocabulary:	Vocabulary:	Vocabulary:		
•	• • • • •			
• outcome	permutation	Congruent Ginitian		
 sample space 	Inear permutation	Similar		
• event				
 tundamental counting principle factorial 				
😵 Tactorial				

Course Pacing Guide				
Resources:	Resources:	Resources:		
Common Core Standards and Engaging	Common Core Standards and Engaging	Common Core Standards and Engaging		
Activities/Projects	Activities/Projects	Activities/Projects		
www.CPALMS.org -	www.CPALMS.org -	www.CPALMS.org -		
http://www.floridastandards.org/homepage/index.	http://www.floridastandards.org/homepage/index.	http://www.floridastandards.org/homepage/index.		
aspx	aspx	aspx		
Reproducible Worksheets www.kutasoftware.com www.edhelper.comSee Resource Page for Websites 	Reproducible Worksheets www.kutasoftware.com www.edhelper.com 	Reproducible Worksheets www.kutasoftware.com www.edhelper.com 		
Graphic Calculator Activity:				
Graphic Calculator Activity (Use graph booklet or online resource for Texas Instruments calculators to this activity on Counting Principle)				

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Getting Started	with Chapter	Unit Essential Question:	
0/Prerequiste Chapter 0		How do you prepare for success in Algebra 2?	
-, · · · · · · · · · · · · · · · · · · ·			
Semester: Semester 1	Grading Period: 1		
Concept:			
Section 0-7 The Pythagore	an Theorem		
Pages P17-P18			
NGSSS Standard(s):			
MA.8.G.4-Validate and ap	ply Pythagorean		
ineorem to find distances	in real world situations		
or between two points on	a coordinate plane		
Common Core Standards:			
common core standards.			
Domain: Understand and	apply the Pythagorean		
Theorem			
8.G (Eighth grade geomet	t ry)		
Lesson Essential Question	:		
How do you use the Pytha	gorean theorem and its		
converse to solve problem	15?		
How do you find the dista	nce between two points		
on the coordinate plane to	o solve problems?		
Llow do you find the enve	tion of the simple?		
How do you find the equa	tion of the circle?		
vocabulary.			
✤ outcome			
 sample space 			
✤ event			
 fundamental cour 	ting principle		
 factorial 			

Resources:	
Common Core Standards and Engaging	
Activities/Projects	
www.CPALMS.org -	
http://www.floridastandards.org/homepage/index.	
aspx	
Reproducible Worksheets	
 <u>www.kutasoftware.com</u> 	
 <u>www.edhelper.com</u>See Resource Page for 	
Websites	
Graphic Calculator Activity:	
Graphic Calculator Activity (Use graph	
booklet or online resource for Texas Instruments	
calculators to this activity on Counting Principle)	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 1-Equa	tions and Inequalities	Unit Essential Question:		
		Why are expressions, equations, and inequalities useful in the real world?		
Semester: Semester 1	Grading Period: 1			
Concept:		Concept:	Concept:	
Section 1-1 Expressions an	d Formulas	Section 1-2 Properties of Real Numbers Section 1-3 Solving Equations		
Pacing section: 2 days		Pacing Section 2-days	Pacing Section 2-days	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.A.3.1 Solve linear	equations in one variable	MA.912.A.3.2 Identify and apply the distributive,	MA.912.A.3.3 Solve literal equations for a specified	
that include simplifying alg	sebraic expressions. Also	associative, and commutative properties and real	variable.	
addresses MA.912.A.1.3 ar	nd MA.912.A.1.4	numbers and the properties of equality. Also		
		addresses MA.912.A.1.1 and MA.912.A.1.4		
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
common core standards.				
Domain: Reasoning with E	quations and Inequalities	Domain: Reasoning with Equations and Inequalities	Domain: Reasoning with Equations and Inequalities	
A.REI.2: Understand and so	olving equations as a	A.REI.2: Understand and solving equations as a	A.REI.2: Understand and solving equations as a	
process of reasoning and e	explain the reasoning.	process of reasoning and explain the reasoning.	process of reasoning and explain the reasoning.	
A.REI.11 Represent and so	lve equations and	A.REI.11 Represent and solve equations and	A.REI.11 Represent and solve equations and	
inequalities graphically		inequalities graphically	inequalities graphically	
Lesson Essential Question:		Lesson Essential Question:	Lesson Essential Question:	
How do you apply order of operations to evaluate		How do you classify real numbers and apply the	How do you translate verbal expressions into	
expressions of various formats and problems?		properties of real numbers to evaluate	algebraic expressions and equations, vice versa?	
		expressions?		
How do you solve linear ec	quations to solve real			
problems? (see word prob	lems)	How do you use real number properties to solve	How do you solve equations using the properties of	
		problem equations and inequalities	equality?	

Course Pacing Guide				
Vocabulary:	Vocabulary:	Vocabulary:		
 Variables Algebraic expressions Order of operations Formula 	 real numbers rational numbers irrational numbers integers whole numbers natural numbers 	 Open sentence Equation Solution 		

Course Pacing Guide				
Textbook/Workbook Resources:	Textbook/Workbook Resources:	Textbook/Workbook Resources:		
		✓ NGSSS Practice (Box) page 17		
✓ Diagnose Readiness: Page 3	✓ NGSSS Practice (Box) page 10	✓ Practice Textbook pp.22-23		
✓ Check for understanding pg.7	✓ Practice Textbook pp.14-15	✓ Check for understanding p.22		
✓ Practice Textbook p.7	✓ Check for understanding p.14	✓ Study Guide and Intervention workbook		
 Study Guide and Intervention workbook 	 Study Guide and Intervention workbook 	pages 5-6		
pages 2-3	pages 4-5	✓ Differentiated Instruction page 20 & 21		
✓ Differentiated Instruction page 6 (Teacher	✓ Differentiated Instruction page 17 (Teacher	(Teacher Edition Activity)		
Edition Activity)	Edition Activity)	✓ Practice and Problem Solving (Word		
✓ Practice Problem solving (word problems in	 Practice and Problem Solving (Word 	problems application in textbook)		
textbook)	problems application in textbook)	✓ H.O.T. Problems for Common Core page 24		
✓ H.O.T. Problems for Common Core page 9	✓ H.O.T. Problems for Common Core page 16	(62-66)		
(43-49)	(53-61)	✓ Spiral and Skills Review		
 Spiral Review and Skills Review page 10 Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG 	 Spiral Review and Skills Review Projects: Interactive Whiteboard: Draw a set diagram on the board showing how the set of real numbers is separated into rational and irrational numbers, integers, whole numbers etc. Write a list of 12 real numbers, and chose students to come to the board to drag them into the correct set of 	Activity 1: Carousel Around the room *Using 7 pieces of chart paper: write 1 problem related to this topic on each chart paper with a marker. Have students rotate around the room to solve the problems. Activity 2: Have students use chart paper at their station (groups of 3 or 4) and complete up to 3 problems from the lesson. Have		
	1. S	students present their answers to other groups.		

Other Projects can be used from the Common Core

Common Core Standards and Activity site:

websites:

WWW.CPALMS.ORG



∞Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill			
Unit Title: Chapter 1- Equ	ations and Inequalities	Unit Essential Question: Why are expressions, equations, and inequalities useful in the real world?			
Semester: Semester 1	Grading Period: 1 Pacing: 14 days				
Concept:		Concept:	Concept:		
Section 1-4 Solving Absol	ute Value Equations	Section 1-5 Solving Inequalities	Section 1-6 Solving Compound and Absolute Value		
Pacing : 2 days		Pacing: 2 days	nequalities Section 1-6 Algebra LAB page 40Pacing: 4 days		
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):		
		Reinforcement for:	Reinforcement for:		
MA.912.A.3.6 Solve and g	raph the solutions of	MA.912.A.3.4-Solve and graph simple and	MA.912.A.3.4-Solve and graph simple and		
absolute value equations	and inequalities with one	compound inequalities in one variable and be able	compound inequalities in one variable and be able		
variable. Also addresses N	1A.912.A.1.4	to justify each step in a solution	to justify each step in a solution.		
			MA 912 A 3.6 Solve and graph the solution of		
			absolute value equations and inequalities with one		
			variable.		
			LA.912.1.6.1 – English/writing- The student use		
			new vocabulary that is introduced and taught		
			directly		
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):		
Domain: Reasoning with	Equations and Inequalities	Domain: Reasoning with Equations and Inequalities	Domain: Reasoning with Equations and Inequalities		
A.REI.2: Understand and solving equations as a		A.REI.2: Understand and solving equations as a	A.REI.2: Understand and solving equations as a		
process of reasoning and	explain the reasoning.	process of reasoning and explain the reasoning. process of reasoning and explain the			
A.REI.11 Represent and so	olve equations and	A.REI.11 Represent and solve equations and	A.REI.11 Represent and solve equations and		
inequalities graphically		inequalities graphically	inequalities graphically		
Lesson Essential Question	:	Lesson Essential Question:	Lesson Essential Question:		
Construct how to evaluate	e expressions involving	How do you explain the steps to solve one step			
absolute values?		inequalities?			
Show how to solve absolu	te value equations?	How do you solve multi-step inequalities?			

	Course Pacing Guide				
Vocabi	ılary:	Vocabı	ılary:	Vocabul	lary:
* * *	Absolute value Empty set Extraneous solution	*	Set-builder notation		
Resour	ces:	Resour	ces:	Resourc	es:
$\begin{array}{c} \checkmark \\ \checkmark $	NGSSS Practice (Box) page 25 Practice Textbook pp.30-31 Check for understanding p.30 Study Guide and Intervention workbook pages 7-8 Differentiated Instruction page 32 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 31 (45-51)	√ √ √ √ √ √	NGSSS Practice (Box) page 32 Practice Textbook pp.36-37 Check for understanding p.36 Study Guide and Intervention workbook pages 9-10 Differentiated Instruction page 39 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 38 (44-49)	$\begin{array}{c} \checkmark \\ \checkmark $	NGSSS Practice (Box) page 39 Practice Textbook pp.45-46 Check for understanding p.45 Study Guide and Intervention workbook pages 11-12 Differentiated Instruction page 44 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 47 (53-62) Study Guide and Review pp.50-51
Other websit Comm WWW	Projects can be used from the Common Core es: on Core Standards and Activity site: <u>CPALMS.ORG</u>	Other I websit Common WWW	Projects can be used from the Common Core es: on Core Standards and Activity site: <u>CPALMS.ORG</u>	Other P website Commo	NGSSS Practice page 55 NGSSS Practice page 55-57

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Equations and Inequalities		Unit Essential Question:	
		Why are expressions, equations, and inequalities useful in the real world?	
Semester: Semester 1	Grading Period: 1	How do you solve expressions, equations and inequalities?	
Concept:			
Chapter 1 Study Guide/ Re	eview and Tests		
Pacing 2 days			
NGSSS Standard(s):		Common Core Standards:	
MA.912.A.3.1 Solve linear	equations in one variable	Domain: Reasoning with Equations and Inequalities	
that include simplifying alg	gebraic expressions. Also	A.REI.2: Understand and solving equations as a process of reasoning and explain the reasoning.	
addresses MA.912.A.1.3 a	na MA.912.A.1.4	A DEL 11 Depresent and calve equations and in equalities graphically	
MA 012 A 2 4 Solve and a	ranh simple and	A.REI.11 Represent and solve equations and inequalities graphically	
MA.912.A.3.4-Solve and g	raph simple and he able		
to justify each stop in a so			
to justify each step in a so			
MA 912 A 3 6 Solve and g	ranh the solutions of		
absolute value equations :	and inequalities with one		
variable. Also addresses M	1A 912 A 1 4		
	//		
Vocabulary:		Resources:	
Vocabulary check page 49		Textbook	
		✓ Study Guide and Review page 50-52	
		✓ Chapter 4 Practice Test page 53	
		✓ Preparing for Standardized Tests page 54-55	
		✓ NGSSS Practice page 56-57	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 2 : Linear Relations and		Unit Essential Question:	
Functions		How do you identify, graph and sketch graphs of pare	nt functions, including but limited to linear,
		quadratic and absolute value functions. How do you analyze functions using different representations?	
Semester: Semester 1	Grading Period: 1		
	Pacing: 24 days	How do you build a function that models a relationsh	ip between two quantities and build new functions
		from existing functions?	
Concept:		Concept:	Concept:
Section 2-1 Relations and	Functions	Section 2-2 Linear Relations and Functions	Section 2-3: Rate of Change and Slope
Pacing : 2 days		Pacing: 2 days	Pacing: 4 days
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):
MA.912.A.10.3-Decide whether a given statement		MA.912.A.2.6- Identify and graph common	MA.912.A.10.3-Decide whether a given statement
is always, sometimes, or never true (statements		functions (Including but not limited to linear,	is always, sometimes, or never true (statements
involving linear or quadra	tic expressions,	rational, quadratic, cubic, radical, absolute value.)	involving linear or quadratic expressions,
equations, or inequalities	rational or radical		equations, or inequalities rational or radical
expressions or logarithmic or exponential		MA.912.A.10.3-Decide whether a given statement	expressions or logarithmic or exponential
functions)		is always, sometimes, or never true (statements	functions)
		involving linear or quadratic expressions,	
		equations, or inequalities rational or radical	
		expressions or logarithmic or exponential	
		functions)	

	Course Pacing Guide			
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):		
 Domain: Interpreting Functions F.IF.4,5,6 Interpret functions that arise in applications in terms of a context. <i>Emphasize selection of appropriate models</i> F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key features to guide selection of appropriate type of model function</i> 	 Domain: Interpreting Functions F.IF.4,5,6 Interpret functions that arise in applications in terms of a context. <i>Emphasize</i> <i>selection of appropriate models</i> F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key</i> <i>features to guide selection of appropriate type of</i> <i>model function</i> 	 F.IF.4,5,6 Interpret functions that arise in applications in terms of a context. <i>Emphasize selection of appropriate models</i> F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key features to guide selection of appropriate type of model function</i> 		
	Domain: Build a Function F.BF.1b : Build a function that models a relationship between two quantities. <i>Include all types of</i> <i>functions studied</i> F.BF.3.4a: Build new functions from existing functions. <i>Include simple radical, rational, and</i> <i>exponential functions; emphasize common effect of</i> <i>each transformation across function types.</i>	Domain: Build a Function F.BF.1b : Build a function that models a relationship between two quantities. <i>Include all types of</i> <i>functions studied</i>		
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you:	How do you identify and construct linear relations	How do you find rate of change and determine the		
Analyze relation and functions?	and functions and write linear equations in standard form?	slope of a line?		
Use equations of relations and functions? How do you identify and sketch graphs of parent functions?	How do you identify and sketch graphs of parent functions?	How do you identify and sketch graphs of parent functions, including quadratics?		
Vocabulary:	Vocabulary:	Vocabulary:		
 One to one function 	 linear relation 			
 Onto function 	 nonlinear relation 			
 Discrete relation 	 linear equation 			
 continuous relation 	 linear function 			
✤ vertical line test	 standard form 			
 independent variable 	✤ y-intercept			
 dependent variable 	✤ x-intercept			
 Function notation. 				

Course Pacing Guide			
Textbook/Workbook Resources:	Textbook/Workbook Resources:	Resources:	
 Diagnose Readiness pg 59 Practice Textbook pp. 64-65 Check for understanding p.64 Study Guide and Intervention workbook pages 13-14 Differentiated Instruction page 64 (Teacher Edition Activity) MORE Differentiated Instruction Activities page 58F in Teacher Edition Practice and Problem Solving (Word problems application in textbook) 	 ✓ NGSSS Practice (Box) page 67 ✓ Practice Textbook pp.71-73 ✓ Check for understanding p.71 ✓ Study Guide and Intervention workbook pages 15-16 ✓ Differentiated Instruction page 74 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 73 (52-56) 	 ✓ NGSSS Practice (Box) page 74 ✓ Practice Textbook pp.79-81 ✓ Check for understanding p.79 ✓ Study Guide and Intervention workbook pages 17-18 ✓ Differentiated Instruction page 78 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 81 (36-40) 	
 H.O.T. Problems for Common Core page 66 (35-40) 	Activity 1: Extend learning The provide the provide t	Activity 1: Drawing and Constructing using graph paper throughout lesson (Also search websites for more activities on construction of graphs-see resource page)	

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG

Common Core Standards and Activity site: WWW.CPALMS.ORG



websites:

Use Graphing Calculator Technology

Record and the state of the sta Other Projects can be used from the Common Core

websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG



Use Graphing Calculator Technology

Graphic Calculator Activity

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 2: Linear Relations and Eurotions		Unit Essential Question: How do you Apply functions to problem situations?		
Functions		How do you identify, graph and sketch graphs of parent functions, including but limited to linear,		
Semester: Semester 1	Grading Period: 1 Pacing: 18 days	quadratic and absolute value functions?		
		How do you analyze functions using different represent	entations?	
		How do you build a function that models a relationship between two quantities and build new functions from existing functions?		
Concept:		Concept:	Concept:	
Section 2-4 Writing Linear Equations		Section 2-5 Scatter Plots and Lines of Regression	Section 2-6: Special Functions	
Pacing 5 days		Pacing: 2 days	Pacing: 2 days	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.A.3.10- Write an	equation of a line given	MA.912.A.3.11: Write an equation of a line that	MA.912.A.2.5 Graph absolute value equations and	
any of the following information: two points on the		models a data set and use the equation or the	inequalities in two variables.	
line, its slope and one point on the line, or its		graph to make predictions. Describe the slope of		
graph. Also, find an equation of a new line parallel		the line in terms of the data, recognizing that the	MA.912.A.2.9- Recognize, interprets, and graph	
to a given line, or perpendicular to a given line,		slope is the rate of change.	functions defined piecewise, with and without	
through a given point on the new line			technology. Also addresses MA.912.A.2.6	

	Course Pacing Guide	
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):
Domain: Interpreting Functions F.IF.4,5,6 Interpret functions that arise in applications in terms of a context. <i>Emphasize</i> <i>selection of appropriate models</i> F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key</i> <i>features to guide selection of appropriate type of</i> <i>model function</i>	Domain: Interpreting Functions F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key</i> <i>features to guide selection of appropriate type of</i> <i>model function</i>	F.IF.4,5,6 Interpret functions that arise in applications in terms of a context. <i>Emphasize</i> <i>selection of appropriate models</i> F.IF.F.7b,7c,7e,8,9: Analyze functions using different representations. <i>Focus on using key</i> <i>features to guide selection of appropriate type of</i> <i>model function</i>
	 Domain: Build a Function F.BF.1b : Build a function that models a relationship between two quantities. Include all types of functions studied F.BF.3.4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types. Domain: Interpreting Categorical and Quantitative Data S.ID.4 Summarize, represent, and interpret data on a single count or measurement variable 	Domain: Build a Function F.BF.1b : Build a function that models a relationship between two quantities. <i>Include all types of</i> <i>functions studied</i>
Lesson Essential Question: How do you -Write an equation of a line given the slope and a point on the line -Write an equation of a line parallel or perpendicular to a given line -Apply functions to problem situations?	Lesson Essential Question: How do you Use scatter plots and prediction equations? How do you model data using lines of regression? How do you create models from data and use the models to make decisions and critical judgments?	Lesson Essential Question: How do you write and graph piecewise defined functions and write and graph step and absolute value functions? How do you identify and sketch graphs of parent functions, including quadratic functions
 Vocabulary: Slope-intercept form Point-slope form Parallel perpendicular 	Vocabulary: linear relation nonlinear relation linear equation linear function standard form y-intercept x-intercept 	 Vocabulary: piece-wise defined functions piece-wise linear function step function greatest integer function absolute value function

Course Pacing Guide				
extbook/workbook Resources:	Textbook/Workbook Resources:	Textbook/Workbook Resources:		
 NGSSS Practice (Box) pg 82 Practice Textbook pp. 86-87 Check for understanding p.86 Study Guide and Intervention workbook pages 19-20 Differentiated Instruction page 89 (Teacher Edition Activity) Mid-chapter Quiz pg. 91 Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 88(37-42) 	 ✓ NGSSS Practice (Box) page 89 ✓ Practice Textbook pp.95-96 ✓ Check for understanding p.95 ✓ Study Guide and Intervention workbook pages 21-22 ✓ Differentiated Instruction page 94 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 97 (12-16) 	 NGSSS Practice (Box) page 98 Practice Textbook pp.104-105 Check for understanding p.104 Study Guide and Intervention workbook pages 23-24 Differentiated Instruction page 104 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 106 (40-44) 		
Objective Contraction Second S	Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG Use Graphing Calculator Technology	Conter Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG Use Graphing Calculator Technology		

Т

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 2 : Linear Relations and		Unit Essential Question:	
Functions			
	Γ	How do you identify, graph and sketch graphs of parent functions, including but limited to linear,	
Semester: Semester 1	Grading Period: 1	quadratic and absolute value functions?	
	Pacing: 18 days		
		How do you analyze functions using different represe	ntations?
		How do you build a function that models a relationsh	ip between two quantities and build new functions
0		from existing functions?	
Concept:	1 - 6	Concept:	
Section 2-7 Parent Function	ons and Transformations	Section 2-8 : Graphing Linear and Absolute Value	
Pacing 4 days		Inequalities	
NGSSS Standard(s):		NGSSS Standard(s):	
MA.912.A.2.6 Identify and	I graph common functions	MA.912.A.2.5 Graph absolute value equations and	
(including but not limited to linear, rational,		inequalities in two variables.	
quadratic, cubic, radical, absolute value).			
MA.912.A.2.10 Describe and graph transformation			
of functions. Also addresses MA.912.A.2.5			

	Course Pacing Guide	
Common Core Standards:	Common Core Standard(s):	
Domain: Interpreting Functions	Domain: Interpreting Functions	
F.IF.4,5,6 Interpret functions that arise in	F.IF.4,5,6 Interpret functions that arise in	
applications in terms of a context. Emphasize	applications in terms of a context. Emphasize	
selection of appropriate models	selection of appropriate models	
F.IF.F.7b,7c,7e,8,9: Analyze functions using	F.IF.F.7b,7c,7e,8,9: Analyze functions using	
different representations. Focus on using key	different representations. Focus on using key	
features to quide selection of appropriate type of	features to quide selection of appropriate type of	
model function	model function	
	Domain: Build a Function	
	E BE 1b : Build a function that models a relationship	
	hetween two quantities. Include all types of	
	functions studied	
	F BE 3 4a: Build new functions from existing	
	functions Include simple radical rational and	
	exponential functions: emphasize common effect of	
	each transformation across function types	
Lesson Essential Question:	Lesson Essential Question:	
How do you identify and use parent functions and	How do you graph linear and absolute value	
describe transformations of functions?	inequalities?	
	liequalities:	
How do you analyze a cituation modeled by a	How do you formulate systems of inequalities?	
rational function, formulate an equation or	now do you formulate systems of mequalities:	
inequality, and solve the problem?		
	Vesebulanu	
Vocabulary.	Vocabulary.	
Failing Of graphs Parent graph	 Linear inequality houndary 	
Parent function	Se boundary	
 Parent function Constant function 		
• Oundarie function		
 Iranslation Definition 		
★ Reflection		
Line of reflection		
 Dilation 		

Course Pacing Guide			
Textbook/workbook Resources:	Resources:		
 ✓ NGSSS Practice (BOX) page 107 ✓ Practice Textbook pp.113-114 ✓ Check for understanding p.113 ✓ Study Guide and Intervention workbook pages 25-26 ✓ Differentiated Instruction page 111 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 115 (43-47) 	 NGSSS Practice (Box) page 116 Practice Textbook pp.119-120 Check for understanding p.119 Study Guide and Intervention workbook pages 27-28 Differentiated Instruction page 121 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 120(33-37) 		
 Other Resources on Resource Page Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG 	 Other Resources on Resource Page Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> 		

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 2 : Linear Relations and		Unit Essential Question:	
Functions			the device the sector of the Process
Comostory Comostor 1	Crading Dariady 1	How do you identify, graph and sketch graphs of parent functions,	including but limited to linear,
Semester: Semester I	Grading Period: 1 Pacing: 18 days		
	Facilig. 10 uays	How do you analyze functions using different representations?	
		How do you build a function that models a relationship between t	wo quantities and build new functions
		from existing functions?	
Concept:		Concept:	
Chapter 2 Study Guide /Re	eview and Tests	Chapter 2 Study Guide /Review and Tests	
Pacing: 2 days		Pacing: 2 days	
NGSSS Standard(s):		Common Core Standard(s):	
MA.912.A.2.6 Identify and	graph common functions	Domain: Interpreting Functions	
(including but not limited	to linear, rational,	F.IF.4,5,6 Interpret functions that arise in applications in terms of	
quadratic, cubic, radical, a	bsolute value).	a context. Emphasize selection of appropriate models	
MA 012 A 2 10 Describe a	nd graph transformation	F.IF.F./D,/C,/C,X,9: Analyze functions using amerent	
of functions Also address		of appropriate type of model function	
	22 MIC. 212. C. 2. 2	of appropriate type of model function	
NGSSS Standard(s):		Domain: Build a Function	
MA.912.A.2.5 Graph abso	lute value equations and	F.BF.1b : Build a function that models a relationship between	
inequalities in two variable	es	two quantities. Include all types of functions studied	
		F.BF.3.4a: Build new functions from existing functions. <i>Include</i>	
		simple radical, rational, and exponential functions; emphasize	
		common effect of each transformation across function types	
Vocabulary Check page 12	2	NGSSS Standard(c):	
		\checkmark Chanter 2 Study Guide and Review ng 122-123	
		✓ Chapter 2 Jest page 127	
		✓ NGSSS Practice Test Cumulative chapters 1 and 2 (pages	
		130-131	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 3:		Unit Essential Question:		
Systems of Equations and Inequalities		How do you use algebraic, graphical and substitution methods to solve systems of linear equations and inequalities?		
Semester: Semester 1	Grading Period: 1 Pacing: 22 days			
Concept:		Concept:	Concept:	
Section 3-1 Solve systems	of Equations by Graphing	Section 3-2 Solving Systems of Equations	Section 3-3 Solving Systems of Inequalities by	
Pacing 5 days		Algebraically	Graphing	
		Pacing 5 days	Pacing 5 days	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.A.3.14- Solve syst	tems of linear equations	MA.912.A.2.5 Graph absolute value equations and	MA.912.A.3.14- Solve systems of linear equations	
and inequalities in two an	d three variables using	inequalities in two variables.	and inequalities in two and three variables using	
graphical, substitution, and elimination methods.			graphical, substitution, and elimination methods.	
MA.912.A.3.15-Solve real-world problems involving			MA.912.A.3.15-Solve real-world problems involving	
systems of linear equation	ns and inequalities in two		systems of linear equations and inequalities in two	
and three variables			and three variables	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain: Reasoning and Equations and Inequalities		Domain: Reasoning and Equations and Inequalities	Domain: Reasoning and Equations and Inequalities	
A.REI.11: Represent and solve equations and		A.REI.11: Represent and solve equations and	A.REI.11: Represent and solve equations and	
inequalities graphically		inequalities graphically	inequalities graphically	
This standard below is for Fourth courses (Upper		This standard below is for Fourth courses (Upper	This standard below is for Fourth courses (Upper	
level course)		level course)	level course)	
A.RE1.8,9: Solve systems of equations		A.RE1.8,9: Solve systems of equations	A.RE1.8,9: Solve systems of equations	

Course Pacing Guide					
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:			
	How do you solve systems of linear equations by	How do you solve systems of inequalities by			
How do you solve systems of linear equations by using tables and graphs?	using substitution?	graphing?			
	How do you solve systems of linear equations by	How do you determine the coordinates of the			
How do you determine whether a system of linear	using elimination?	vertices of a region formed by the graph of a			
equations is inconsistent, consistent and		system of inequalities?			
dependent, or consistent and independent?	How do you solve systems of inequalities?				
		How do you solve real-world optimization problems			
How do you use algebraic methods to solve		using systems of inequalities?			
systems of linear equations?					
Vocabulary:	Vocabulary:	Vocabulary:			
 System of equations 	 Substitution method 				
Break-even point	 Elimination method 	 System of inequalities 			
 Consistent 		Bounded			
 inconsistent 		Unbounded			
 Independent 		 Boundary line 			
 Dependent 		✤ Region			

Course Pacing Guide					
Textbook/Workbook Resources:	Textbook/Workbook Resources:	Textbook/Workbook Resources:			
 ✓ NGSSS Practice (BOX) page 121 ✓ Practice Textbook pp.138-139 ✓ Check for understanding p.138 ✓ Study Guide and Intervention workbook pages 29-30 ✓ Differentiated Instruction page 138 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 140 (42-46) 	 ✓ NGSSS Practice (Box) page 141 ✓ Practice Textbook pp.147-148 ✓ Check for understanding p.146 ✓ Study Guide and Intervention workbook pages 31-32 ✓ Differentiated Instruction page 146 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 149(64-68) 	 ✓ NGSSS Practice (Box) page 150 ✓ Practice Textbook pp.154-155 ✓ Check for understanding p.119 ✓ Study Guide and Intervention workbook pages 32-33 			
Activity 1: Drawing and Constructing using graph paper throughout lesson (Also search websites for more activities on construction of graphs-see resource page) Construction of graphs-see resource page (Source Plan Align Learn Motivate Share Cother Projects can be used from the Common Core websites:	Activity 1: The provide state of the provide state	 ✓ Differentiated Instruction page 155 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 156 (45-50) 			
Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> Use Graphing Calculator Technology Other Resources on Resource Page	websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> Use Graphing Calculator Technology	 Other Resources on Resource Page Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> 			
	 Other Resources on Resource Page 				

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 3:		Unit Essential Question:		
Systems of Equations and Inequalities		How do you use algebraic, graphical and substitution methods to solve systems of linear equations and		
Somostor: Somostor 1	Grading Period: 1	inequalities?		
Semester. Semester 1	Pacing: 22 days			
Concept:		Concept:	Concept:	
Section 3-1 Solve systems	of Equations by Graphing	Section 3-2 Solving Systems of Equations	Section 3-3 Solving Systems of Inequalities by	
Pacing 4 days		Algebraically	Graphing	
		Pacing 4 days	Pacing 4 days	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.A.3.14- Solve syst	ems of linear equations	MA.912.A.2.5 Graph absolute value equations and	MA.912.A.3.14- Solve systems of linear equations	
and inequalities in two and three variables using		inequalities in two variables.	and inequalities in two and three variables using	
graphical, substitution, and elimination methods.			graphical, substitution, and elimination methods.	
MA.912.A.3.15-Solve real-world problems involving			MA.912.A.3.15-Solve real-world problems involving	
systems of linear equations and inequalities in two			systems of linear equations and inequalities in two	
and three variables			and three variables	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain: Reasoning and Equations and Inequalities		Domain: Reasoning and Equations and Inequalities	Domain: Reasoning and Equations and Inequalities	
A REL 11: Represent and solve equations and		A.REI.11: Represent and solve equations and	A.REI.11: Represent and solve equations and	
inequalities graphically		inequalities graphically	inequalities graphically	
This standard below is for	Fourth courses (Upper	This standard below is for Fourth courses (Upper	This standard below is for Fourth courses (Upper	
level course)		level course)	level course)	
A.RE1.8,9: Solve systems of equations		A.RE1.8,9: Solve systems of equations	A.RE1.8,9: Solve systems of equations	

Course Pacing Guide				
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you solve systems of linear equations by	How do you solve systems of linear equations by	How do you solve systems of inequalities by		
using tables and graphs?	using substitution?	graphing?		
How do you determine whether a system of linear				
equations is inconsistent, consistent and	How do you solve systems of linear equations by	How do you determine the coordinates of the		
dependent, or consistent and independent?	using elimination?	vertices of a region formed by the graph of a system of inequalities?		
How do you use algebraic methods to solve	How do you solve systems of inequalities?			
systems of linear equations?		How do you solve real-world optimization problems		
		using systems of inequalities?		
Vocabulary:	Vocabulary:	Vocabulary:		
 System of equations 	 Substitution method 			
Break-even point	Elimination method	 System of inequalities 		
 Consistent 		✤ Bounded		
 inconsistent 		Unbounded		
 Independent 		 Boundary line 		
 Dependent 		✤ Region		

Course Pacing Guide Resources: Resources: Resources: ✓ NGSSS Practice (BOX) page 121 Practice Textbook pp.138-139 ✓ NGSSS Practice (Box) page 141 \checkmark Practice Textbook pp.147-148 \checkmark Check for understanding p.138 \checkmark \checkmark ✓ Study Guide and Intervention ✓ Check for understanding p.146 \checkmark workbook pages 29-30 ✓ Study Guide and Intervention workbook pages 32-33 Differentiated Instruction page 138 pages 31-32 \checkmark (Teacher Edition Activity) ✓ Differentiated Instruction page 146 (Teacher Edition Activity) Practice and Problem Solving (Teacher Edition Activity) \checkmark (Word problems application in ✓ Practice and Problem Solving (Word) textbook) problems application in textbook) H.O.T. Problems for Common Core ✓ H.O.T. Problems for Common Core page \checkmark 156 (45-50) page 140 (42-46) 149(64-68)

Activity 1:



Drawing and Constructing using graph paper throughout lesson

Activity 2:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)



Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG



Use Graphing Calculator Technology

* Other Resources on Resource Page

Activity 1:



Drawing and Constructing using graph paper throughout lesson

Activity 2:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)



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Common Core Standards and Activity site: WWW.CPALMS.ORG



Use Graphing Calculator Technology

Other Resources on Resource Page

- ✓ NGSSS Practice (Box) page 150
- Practice Textbook pp.154-155
- Check for understanding p.119
- Study Guide and Intervention workbook
- ✓ Differentiated Instruction page 155
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page

Activity 1:



Drawing and Constructing using graph paper throughout lesson

Activity 2:



Search Smarttech.com websites

for smartboard activities to find more activities on construction of graphs-see resource page)





Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG



Use Graphing Calculator Technology

* Other Resources on Resource Page



Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 3:		Unit Essential Question:	
Systems of Equations and	Inequalities	How do you use algebraic, graphical and substitution	methods to solve systems of linear equations and
		inequalities in two and three variables?	
Semester: Semester 1	Grading Period: 1		
	Pacing: 22 days		
Concept:		Concept:	
Section 3.4: Optimization	with Linear Programming	Section 3-5: Systems of Equations in Three	
Pacing 4 days		Variables	
		Pacing 4 days	
NGSSS Standard(s):		NGSSS Standard(s):	
MA.912.A.3.14- Solve syst	ems of linear equations	MA.912.A.3.14- Solve systems of linear equations	
and inequalities in two and three variables using		and inequalities in two and three variables using	
graphical, substitution, and elimination methods.		graphical, substitution, and elimination methods.	
MA.912.A.3.15-Solve real-	world problems involving	MA.912.A.3.15-Solve real-world problems involving	
systems of linear equations and inequalities in two		systems of linear equations and inequalities in two	
and three variables		and three variables.	
Common Core Standards:		Common Core Standard(s):	
Domain: Reasoning and Ec	quations and Inequalities	Domain: Reasoning and Equations and Inequalities	
A.REI.11: Represent and solve equations and		A.REI.11: Represent and solve equations and	
inequalities graphically		inequalities graphically	
This standard below is for	Fourth courses (Upper	This standard below is for Fourth courses (Upper	
level course)		level course)	
A.RE1.8,9: Solve systems of	of equations	A.RE1.8,9: Solve systems of equations	

	Course Pacing Guide	
Lesson Essential Question:	Lesson Essential Question:	
How do you solve systems of linear equations by	How do you solve systems of linear equations by	
using tables and graphs?	using substitution?	
How do you determine whether a system of linear		
equations is inconsistent, consistent and	How do you solve systems of linear equations by	
dependent, or consistent and independent?	using elimination?	
How do you use algebraic methods to solve	How do you solve systems of inequalities?	
systems of linear equations?		
Vocabulary:	Vocabulary:	
 Constraints 	 ordered triple 	
 Linear programming 		
 Feasible region 		
Bounded		
Unbounded		
✤ optimize		

	Course Pacing Guide	
 Resources: ✓ NGSSS Practice (BOX) page 157 ✓ Mid-chapter Review page 159 ✓ Practice Textbook pp.162-163 ✓ Check for understanding p.163 ✓ Study Guide and Intervention workbook pages 35-36 ✓ Differentiated Instruction page 162(Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in 	Course Pacing Guide Resources: ✓ NGSSS Practice (Box) page 166 ✓ Practice Textbook pp.171 ✓ Check for understanding p.171 ✓ Study Guide and Intervention workbook pages 37-38 ✓ Differentiated Instruction page 173(Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook)	
 textbook) ✓ H.O.T. Problems for Common Core page 165 (29-33) Activity 1: 	 H.O.T. Problems for Common Core page 172 (24-29) Activity 1: Drawing and Constructing using graph 	
Drawing and Constructing using graph paper throughout lesson Activity 2: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)	Activity 2: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)	
Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 3:		Unit Essential Question:		
Systems of Equations and	Inequalities	How	do you use algebraic, graphical and substitution methods to solve systems of linear	
		equa	ations and inequalities in two and three variables?	
Semester: Semester 1	Grading Period: 1			
	Pacing: 22 days			
Concept:				
Chapter 3 Study Guide an	d Review and Tests			
Systems of Equations and	Inequalities			
Pacing 2 days				
NGSSS Standard(s):			Common Core Standard(s):	
MA.912.A.3.14- Solve syst	ems of linear equations and			
inequalities in two and three variables using graphical,			Domain: Reasoning and Equations and Inequalities	
substitution, and elimination methods.			A.REI.11: Represent and solve equations and inequalities graphically	
MA.912.A.3.15-Solve real-world problems involving systems			This standard below is for Fourth courses (Upper level course)	
of linear equations and inequalities in two and three			A.RE1.8,9: Solve systems of equations	
variables				
Vocabulary Check page 17	74		Resources:	
			Textbook	
			✓ Study Guide and Review page 175-176	
			✓ Chapter 4 Practice Test page 177	
			✓ Preparing for Standardized Tests page 178-179	
			✓ NGSSS Practice page 180-181	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 4:		Unit Essential Question:		
MATRICES		How do you use matrices to solve systems of equatio	ns?	
Semester: Semester 1	Grading Period: 1			
	Pacing: 20 days			
Concept:		Concept:	Concept:	
Section 4-1: Introduction of	of Matrices	Section 4-2: Operations with Matrices	Section 4-3: Multiplying Matrices	
Pacing 2 days		Pacing 3 days	Pacing 4 days	
			c ,	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.D.8.2 Use matrix of	operations to solve	MA.912.D.8.2 Use matrix operations to solve	MA.912.D.8.2 Use matrix operations to solve	
problems		problems	problems	
LA.910.1.6.1 The student v	will use new vocabulary			
that is introduced and taught directly				
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain: Vector Quantities and Matrices		Domain: Vector Quantities and Matrices	Domain: Vector Quantities and Matrices	
This standard halow is far	Fourth courses (Upper	This standard holow is far Fourth sources (Upper	This standard below is far Fourth sources (Upper	
Ins standard below is for	Fourth courses (Opper	This standard below is for Fourth courses (Opper	This standard below is for Fourth courses (Opper	
(1000000000000000000000000000000000000	rform operations on	level course)	level course)	
N.VM.6,7,8,9,10,11,12: Perform operations on		N.VIVI.0,7,8,9,10,11,12. Perform operations on	N. VIVI.0, 7, 8, 9, 10, 11, 12. Perform operations on	
matrices and use matrices		matrices and use matrices in applications	Demain: Interpreting Categorical and Quantitative	
Domain: Interpreting Cat	agorical and Quantitative	Domain: Interpreting Categorical and Quantitative	Domain. Interpreting Categorical and Quantitative	
Domain. Interpreting Cate	egonical and Quantitative	Data	SID 1- Summarize represent and interpret data on	
S ID 1- Summarize repres	ent and internret data on	SID A-Summarize represent and interpret data on	a single count or measurement variable	
a single count or measurement variable		a single count or measurement variable	or measurement variable	
a single count of measures		a single count of measurement variable		
Course Pacing Guide				
--	---	--	--	
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you organize data in matrices and use row	How do you add and subtract matrices.	How do you use the properties of Matrix		
and column operations to analyze data	How do you multiply matrix by a scalar	multiplication to solve matrices?		
	How do you use matrices to solve systems of			
How do you use matrices to solve systems of	equations			
equations				
Vocabulary:	Vocabulary:	Vocabulary:		
Matrix	🛠 Scalar	Associative property of Matrix		
 Element 	 Scalar multiplication 	multiplication		
Dimensions		 Associative property of Scalar 		
Row matrix		multiplication		
 Column matrix 		 Left Distributive property 		
 Square matrix 		Right Distributive Property		
 Zero matrix 				
 Equal matrices 				

Course Pacing Guide			
	Resources:	Resources:	Resources:
	 NGSSS Practice (BOX) page 173 Practice Textbook pp.188-189 Check for understanding p.188 Study Guide and Intervention workbook pages 39-40 Differentiated Instruction page 189(Teacher Edition Activity) Practice and Problem Solving (Word problems application in 	 Textbook ✓ NGSSS Practice (Box) page 191 ✓ Practice Textbook pp.196-197 ✓ Check for understanding p.196 ✓ Study Guide and Intervention workbook pages 41-42 ✓ Differentiated Instruction page 195(Teacher Edition Activity) ✓ Practice and Problem Solving (Word 	 Textbook ✓ NGSSS Practice (Box) page 199 ✓ Practice Textbook pp.204-206 ✓ Check for understanding p.204 ✓ Study Guide and Intervention workbook pages 43-44 ✓ Differentiated Instruction page 202(Teacher Edition Activity) ✓ Practice and Problem Solving (Word
	textbook)	problems application in textbook)	problems application in textbook)

H.O.T. Problems for Common Core \checkmark page 190 (35-40)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)



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Common Core Standards and Activity site: WWW.CPALMS.ORG

✓ H.O.T. Problems for Common Core page 198 (35-40)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG

 \checkmark H.O.T. Problems for Common Core page 206 (46-50)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 4:		Unit Essential Question:		
MATRICES		How do you use matrices to solve systems of equations?		
Semester: TWO	Grading Period: 1			
	Pacing: 20 days			
Concept:		Concept:	Concept:	
Section 4-4: Transformation	ons with Matrices	Section 4-5: Determinants and Cramer's Rules	Section 4-6 Inverse Matrices and Systems of	
Pacing 3 days		Pacing 3 days	Equations	
			Pacing 3 days	
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):	
MA.912.G.2.4 Apply trans	formations to polygons to	MA.912.A.3.14- Solve systems of linear equations	MA.912.A.3.14- Solve systems of linear equations	
determine congruence, si	milarity and symmetry	and inequalities in two and three variables using	and inequalities in two and three variables using	
		graphical, substitution, and elimination methods.	graphical, substitution, and elimination methods.	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain: Interpreting Cate	egorical and Quantitative	Domain: Interpreting Categorical and Quantitative	Domain: Interpreting Categorical and Quantitative	
Data		Data	Data	
S.ID.4- Summarize, repres	ent, and interpret data on	S.ID.4- Summarize, represent, and interpret data on	S.ID.4- Summarize, represent, and interpret data on	
a single count or measure	ment variable	a single count or measurement variable	a single count or measurement variable	
Domain: Congruence (No	te: There are no grade	Domain: Congruence (Note: There are no grade	Domain: Reasoning and Equations and Inequalities	
level-Geometry standards	s)	level-Geometry standards)	This standard below is for Fourth courses (Upper	
G.CO.1,2,3,4,5: Experimer	nt with transformations in	G.CO.1,2,3,4,5: Experiment with transformations in	level course)	
the plane		the plane	A.RE1.8,9: Solve systems of equations G.CO.6,7,8:	
G.CO.6,7,8: Understand co	ongruence in terms of	G.CO.6,7,8: Understand congruence in terms of	Understand congruence in terms of rigid motions	
rigid motions		rigid motions		
G.SRT.1a,1b,2,3: Understa	and similarity in terms of	G.SRT.1a,1b,2,3: Understand similarity in terms of		
similarity transformations		similarity transformations.		

Course Pacing Guide			
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:	
How do you use matrices for translations and	How do you solve matrices using Cramer's rule	How do you solve 2x2 matrix?	
dilations?	How do you solve matrices in second and third	How do you write and solve matrix equations for a	
How do you use matrices for reflections and	order	systems of equations?	
rotations			
How do you use matrices to solve systems of			
equations			
Vocabulary:	Vocabulary:	Vocabulary:	
 Vertex matrix 	 determinant 	 Identity matrix 	
 Coordinate matrix 	 second-order determinant 	 Inverse matrix 	
✤ Preimage	 third-order determinant 	 Matrix equation 	
✤ Image	 diagonal rule 	 Variable matrix 	
 rotation 	 Cramer's Rule 	 Constant matrix 	
	 Coefficient Matrix 		

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 207
- ✓ Practice Textbook pp.213-215
- ✓ Check for understanding p.213
- ✓ Study Guide and Intervention workbook pages 47-48
- ✓ Differentiated Instruction page 216(Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 216 (42-48)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> Resources:

Textbook

- ✓ NGSSS Practice (Box) page 217
- ✓ Practice Textbook pp.225-226
- ✓ Check for understanding p.225
- ✓ Study Guide and Intervention workbook pages 49-50
- ✓ Differentiated Instruction page 228(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 227 (56-61)

Activity 1:

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Resources:

Textbook

- ✓ NGSSS Practice (Box) page 228
- ✓ Practice Textbook pp.233-234
- ✓ Check for understanding p.223
- ✓ Study Guide and Intervention workbook pages 49-50
- ✓ Differentiated Instruction page 235(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 234 (38-42)

Activity 1:



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 4: MATRICES		Unit Essential Question:	
		How do you use matrices to solve systems of equations?	
Semester: 1	Grading Period: 1		
	Pacing: 20 days		
Concept:			
Chapter 4 Study Guide/ Re	eview and Tests		
Pacing 2 days			
NGSSS Standard(s):		Common Core Standards:	
MA.912.D.8.2 Use matrix	operations to solve problems	Domain: Interpreting Categorical and Quantitative Data	
		S.ID.4- Summarize, represent, and interpret data on a single count or measurement	
MA.912.G.2.4 Apply trans	formations to polygons to determine	variable	
congruence, similarity and	l symmetry	Domain: Congruence (Note: There are no grade level-Geometry standards)	
		G.CO.1,2,3,4,5: Experiment with transformations in the plane	
MA.912.A.3.14- Solve syst	ems of linear equations and inequalities in	G.CO.6,7,8: Understand congruence in terms of rigid motions	
two and three variables us	sing graphical, substitution, and elimination	G.SRT.1a,1b,2,3: Understand similarity in terms of similarity transformations	
methods.		Common Core Standards (Continued)	
		Domain: Vector Quantities and Matrices	
		This standard below is for Fourth courses (Upper level course)	
		N.VM.6,7,8,9,10,11,12: Perform operations on matrices and use matrices in	
		applications	
		Domain: Interpreting Categorical and Quantitative Data	
		S.ID.4- Summarize, represent, and interpret data on a single count or measurement	
		variable	
Lesson Essential Question	: to colve systems of equations?		
How do you use matrices to solve systems of equations?			
		Decourses	
Vocabulary check page 22	7	Testback	
vocabulary check page 23		Study Guide and Poview page 228 240	
		Chapter 4 Practice Tect page 241	
		$\int \text{Dranaring for Standardized Tests page 241}$	
		 MCSSS Practice page 244 245 	
		• 110555 Flattice page 244-245	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 5: Qua Relations	dratic Functions and	Unit Essential Question: How do you solve equations using graphs and the Quadratic Formula?	
Semester: 1	Grading Period: 1 Pacing: 24 days	How do you solve quadratic inequalities using graphs	and algebraic methods?
Concept: Section 5-1: Graphing Quadratic Functions Pacing 4 days		Concept: Section 5-2 Solving Quadratic Equations by Graphing Pacing 4 days	Concept: Section 5-3 Solving Quadratic Equations by Factoring Pacing 4 days
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):
MA.912.A.2.6: Identify and functions (including but no rational, quadratic, cubic,	d graph common ot limited to linear, radical, absolute value.	MA.912.A.7.6 Identify the axis of symmetry, vertex, domain, range and intercept(s) for a given parabola. Also addresses MA.912.A.10.5	MA.912.A.4.3 Factor polynomial expressions MA.912.A.10.3-Decide whether a given statement
MA.912.A.7.6 Identify the axis of symmetry, vertex, domain, range and intercept(s) for a given parabola. Also addresses MA.912.A.10.5		MA.912.A.7.10 Use graphing technology to find approximate solutions of quadratic equations	involving linear or quadratic expressions, equations, or inequalities rational or radical expressions or logarithmic or exponential functions)
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):
Domain: Linear, Quadratie Models F.LE.4-Construct and comp exponential models and so	c, and Exponential bare linear, quadratic, and blve problems.	Domain: Linear, Quadratic, and Exponential Models F.LE.4-Construct and compare linear, quadratic, and exponential models and solve problems.	Domain: Linear, Quadratic, and Exponential Models F.LE.4-Construct and compare linear, quadratic, and exponential models and solve problems. Domain: Arithmetic with Polynomials and Rational Expressions A.APR.1: Perform arithmetic operations on polynomials. <i>Beyond quadratic</i>
Lesson Essential Question How do you graph quadra How do you find and inter minimum values of quadra	: tic functions? pret the maximum and atic functions?	Lesson Essential Question: How do you solve quadratic equations by graphing? How do you estimate solutions of quadratic equations by graphing?	Lesson Essential Question: How do you write quadratic equations in intercept form? How do you solve quadratic equations by factoring?

Course	Pacing	Guide
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Vocabulary:	Vocabulary:	Vocabulary:	
 Quadratic function 	 Quadratic equation 	 Factored form 	
 Quadratic term 	 Standard form 	 FOIL Method 	
 Linear term 	✤ Root		
 Constant term 	 Zero 		
 Parabola 			
 Axis of symmetry 			
 Vertex 			
 Maximum value 			
 Minimum Value 			

Course Pacing Guide Resources: Resources: Resources: ✓ Get ready for Chapter 5 page 247 Textbook Textbook Practice Textbook pp.254-255 ✓ NGSSS Practice (Box) page 257 \checkmark ✓ Check for understanding p.254 ✓ Practice Textbook pp.263-264 ✓ Check for understanding p.263 ✓ Study Guide and Intervention

- ✓ Study Guide and Intervention workbook \checkmark pages 53-54
- ✓ Differentiated Instruction page 266(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 265 (52-56)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page)

Other Projects can be used from the Common Core websites:

workbook pages 51-52

✓ Differentiated Instruction page

 Practice and Problem Solving (Word problems application in

Search Smarttech.com websites for

textbook)

page 256 (61-65)

smartboard activities to find more activities on

construction of graphs-see resource page)

 \checkmark

Activity 1:

253(Teacher Edition Activity)

H.O.T. Problems for Common Core

Common Core Standards and Activity site: WWW.CPALMS.ORG

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Collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

- ✓ NGSSS Practice (Box) page 266
- ✓ Practice Textbook pp.272-273
- Check for understanding p.272
- Study Guide and Intervention workbook pages 55-56
- ✓ Differentiated Instruction page 275(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 274 (79-86)

Activity 1:



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Common Core Standards and Activity site: WWW.CPALMS.ORG

Comm	on Core Standards Activity site:		
WWW	<u>CPALMS.ORG</u>		
Incorp	orate Common Core 8 Mathematical		
Practic	es		
	Make sense of problems and persevere in solving them		
\triangleright	Reason abstractly and quantitatively		
\triangleright	Construct viable arguments and critique		
	the reasoning of others		
	Model with mathematics		
\triangleright	Use appropriate tools strategically		
\succ	Attend to precision		
\succ	Look for and make use of structure		
\triangleright	Look for and express regularity in repeated		
	reasoning		

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 5: Qua	dratic Functions and	Unit Essential Question:	
Relations		How do you solve equations using graphs and the Qu	adratic Formula?
		How do you Construct and compare linear, quadratic	, and exponential models and solve problems?
Semester: 1	Grading Period: 1	How do you solve quadratic inequalities using graphs	and algebraic methods?
	Pacing: 24 days		
Concept:		Concept:	Concept:
Section 5-4: Complex Num	bers	Section 5-5: Completing the Square	Section 5-6: The Quadratic Formula and the
Pacing 4 days		Pacing 4 days	Discriminant
			Pacing 4 days
NGSSS Standard(s):		NGSSS Standard(s):	NGSSS Standard(s):
MA.912.A.1.6-Identify the	real and imaginary parts	MA.912.A.7.3-Solve quadratic equations over the	MA.912.A.7.4-Use the discriminant to determine
of complex numbers and p	perform basic operations.	real numbers by completing the square.	the nature of the roots of a quadratic equation.
Also addresses MA.912.A.1.1 and MA.912.A.1.7			
		MA.912.A.7.5 Solve quadratic equations over the	MA.912.A.7.5 Solve quadratic equations over the
		complex number system.	complex number system. Also assesses
			MA.912.A.10.3
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):
Domain: The Complex Nu	mber System	Domain: Linear, Quadratic, and Exponential	Domain: Linear, Quadratic, and Exponential
		Models	Models
N.CN.1,2 : Perform arithm	netic operations with		
complex numbers		F.LE.4-Construct and compare linear, quadratic, and	F.LE.4-Construct and compare linear, quadratic, and
		exponential models and solve problems.	exponential models and solve problems.
N.CN.7, (+) 8, (+) 9: Use co	omplex numbers in		
polynomial identities and	equations. Polynomials	Domain: The Complex Number System	Domain: The Complex Number System
with real coefficients.		N.CN.7, (+) 8, (+) 9: Use complex numbers in	N.CN.7, (+) 8, (+) 9: Use complex numbers in
•		polynomial identities and equations. Polynomials	polynomial identities and equations. Polynomials
		with real coefficients.	with real coefficients.

Course	Pacing	Guide
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Lesson Essential Question: How do you perform operations with pure imaginary numbers? How do you perform operations with complex numbers	 Lesson Essential Question: How do you solve quadratic equations by using the Square root property? How do you solve quadratic equations by completing the square 	Lesson Essential Question: How do you write quadratic equations in intercept form? How do you solve quadratic equations by factoring?
Vocabulary:	Vocabulary:	Vocabulary:
 Imaginary unit 	 Completing the Square 	 Quadratic formula
 Pure imaginary number 		 Discriminant
 Complex number 		
 Complex conjugates 		

Resources:

- ✓ NGSSS Practice (Box) page 274
- ✓ Mid-chapter Quiz page 283
- ✓ Practice Textbook pp.280-281
- ✓ Check for understanding p.281
- ✓ Study Guide and Intervention workbook pages 57-58
- ✓ Differentiated Instruction page 282(Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 281 (66-70)

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websites: Common Core Standards and Activity site: WWW.CPALMS.ORG Textbook

Resources:

- ✓ NGSSS Practice (Box) page 282
- ✓ Practice Textbook pp.288-289
- ✓ Check for understanding p.288
- ✓ Study Guide and Intervention workbook pages 59-60
- ✓ Differentiated Instruction page 290(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 289 (58-62)

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Resources:

Textbook

- ✓ NGSSS Practice (Box) page 290
- ✓ Practice Textbook pp.297-299
- ✓ Check for understanding p.297
- ✓ Study Guide and Intervention workbook pages 61-62
- ✓ Differentiated Instruction page 296(Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 299 (43-48)

Activity 1:



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>



Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 5: Quadratic Functions and Relations		Unit Essential Question: How do you solve equations using graphs and the Quadratic Formula? How do you Construct and compare linear, guadratic, and exponential models and solve problems?	
Semester: 1	Grading Period: 1 Pacing: 24 days	How do you solve quadratic inequalities using graphs and algebraic methods?	
Concept: Section 5-7: Transformations with Quadratic Functions		Concept: Section 5-8: Quadratic Inequalities Pacing 4 days	
NGSSS Standard(s): MA.912.A.2.10-Describe and graph transformation of functions.		NGSSS Standard(s): MA.912.A.4.11- Solve a polynomial inequality by examining the graph with and without the use of technology. MA.912.A.10.3-Decide whether a given statement is always, sometimes, or never true (statements involving linear or quadratic expressions, equations, or inequalities rational or radical expressions or logarithmic or exponential functions)	
Common Core Standards:		Common Core Standard(s):	
Domain: The Complex Number System		Domain: Linear, Quadratic, and Exponential Models	
N.CN.1,2 : Perform arithmetic operations with complex numbers		F.LE.4-Construct and compare linear, quadratic, and exponential models and solve problems.	
N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial identities and equations. <i>Polynomials</i> <i>with real coefficients.</i> Domain: Congruence (Note: There are no grade level-Geometry standards) G.CO.1,2,3,4,5: Experiment with transformations in the plane		Domain: The Complex Number System N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial identities and equations. <i>Polynomials</i> <i>with real coefficients.</i>	
G.SRT.1a,1b,2,3: Understand similarity in terms of similarity transformations			

Course Pacing Guide			
Lesson Essential Question:			
How do you solve quadratic equations by graphing?			
How do you estimate solutions of quadratic equations			
by graphing?			
Vocabulary:	*		
 How do you solve quadratic equations by using the Square root property? How do you solve quadratic equations by completing the square 			
	Course Pacing Guide Lesson Essential Question: How do you solve quadratic equations by graphing? How do you estimate solutions of quadratic equations by graphing? Vocabulary: * How do you solve quadratic equations by using the Square root property? * How do you solve quadratic equations by completing the square		

Course Pacing Guide Resources: **Resources:** ✓ NGSSS Practice (Box) page 300 Textbook Practice Textbook pp.308-309 ✓ NGSSS Practice (Box) page 310 \checkmark ✓ Check for understanding p.308 ✓ Practice Textbook pp.315-317 ✓ Study Guide and Intervention ✓ Check for understanding p.315 ✓ Study Guide and Intervention workbook pages workbook pages 63-64 ✓ Differentiated Instruction page 65-66 307(Teacher Edition Activity) ✓ Differentiated Instruction page 318(Teacher ✓ Practice and Problem Solving Edition Activity) ✓ Practice and Problem Solving (Word problems (Word problems application in application in textbook) textbook) ✓ H.O.T. Problems for Common Core page \checkmark H.O.T. Problems for Common Core 317(57-62) page 309(48-52) Activity 1: Activity 1: Search Smarttech.com websites for Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs-see resource page) smartboard activities to find more activities on construction of graphs-see resource page) Collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core Collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: websites: WWW.CPALMS.ORG Common Core Standards and Activity site: WWW.CPALMS.ORG Graphic Calculator Activity **Graphic Calculator Activity**

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 5: Quadratic Functions and Relations		Unit Essential Question:	
		How do you solve equations using graphs and the Quadratic	
		Formula?	
Semester: 1	Grading Period: 1	How do you Construct and compare linear, quadratic, and	
	Pacing: 24 days	exponential models and solve problems?	
Concept:			
Chapter 5 Study Guide/ Re	eview and Tests		
Pacing 2 days			
NGSSS Standard(s):		Common Core Standards:	
MA.912.A.1.6-Identify the	real and imaginary parts of complex numbers and perform		
basic operations. Also ada	lresses MA.912.A.1.1 and MA.912.A.1.7		
		Domain: Linear, Quadratic, and Exponential Models	
MA.912.A.7.6 Identify the	axis of symmetry, vertex, domain, range and intercept(s) for a		
given parabola. Also addresses MA.912.A.10.5		F.LE.4-Construct and compare linear, quadratic, and exponential models and solve problems.	
MA.912.A.7.10 Use graphing technology to find approximate solutions of quadratic			
equations		Domain: The Complex Number System	
MA.912.A.7.3-Solve quadratic equations over the real numbers by completing the square.		N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial identities and equations. <i>Polynomials with real coefficients.</i>	
MA.912.A.7.5 Solve quadratic equations over the complex number system			
✓ Vocabulary Check	: page 320	✓ Chapter 5 Study Guide and Review pages 321-324	
		✓ Chapter 5 Cumulative Test page 325	
		 Preparing for Standardized Tests pp.326-327 	
		✓ NGSSS Practice Test 328-329	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 6: Polynomials and Polynomial		Unit Essential Question:		
Functions		How do you use tools including factoring to transform and solve polynomial equations?		
Semester: TWO	Grading Period: 2			
	Pacing: 21 days			
Concept:		Concept:	Concept:	
Section 6-1: Operations w	ith Polynomials	Section 6-2: Dividing Polynomials	Section 6-3: Polynomial Functions	
Pacing 3 days		Pacing 3 days	Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
		MA.912.A.4.4- Divide polynomials by	MA.912.A.4.5 Graph polynomial functions with and	
MA.912.4.2-Add, subtract	and multiply polynomials	monomials and polynomials with various	without technology and describe the end behavior.	
Also assess MA.912.A.1.3	and MA.912.A.1.4	techniques, including synthetic division		
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
			Domain: Arithmetic with Polynomials and Rational	
Domain: Arithmetic with	Polynomials and Rational	Domain: Arithmetic with Polynomials and	Expressions	
Expressions		Rational Expressions		
			A.APR.1 Perform arithmetic operations on polynomials	
A.APR.1 Perform arithmet	ic operations on	A.APR.1 Perform arithmetic operations on		
polynomials		polynomials	Domain: The Complex Number System	
Domain: The Complex Number System		Domain: The Complex Number System	N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial	
			identities and equations. Polynomials with real	
N.CN. /, (+) 8, (+) 9: Use co	mplex numbers in	N.CN. 7 , (+) 8, (+) 9: Use complex numbers in	coefficients.	
polynomial identities and equations. <i>Polynomials</i>		polynomial identities and equations.		
with real coefficients.		Polynomials with real coefficients.	Domain: Linear, Quadratic, and Exponential Wodels	
•			FIF 4-Construct and compare linear quadratic and	
			exponential models and solve problems.	

Lesson Essential Question: How do you multiply, divide and simplify monomials and expressions involving powers? How do you add, subtract and multiply polynomials?	Lesson Essential Question: How do you divide polynomials using long division? How do you divide polynomials using synthetic division?	Lesson Essential Question: How do you evaluate polynomial functions? How do you identify general shapes of graphs of polynomial functions?
 Vocabulary: Simplify Degree of a polynomial 	Vocabulary:	 Vocabulary: Polynomial in one variable Leading coefficient Polynomial function Power function End behavior Quartic function Quantic function

Course Pacing Guide			
Resources:	Resources:	Resources:	
 Get Ready for Chapter 6 page 331 Practice Textbook pp.337-338 Check for understanding p.337 Study Guide and Intervention workbook pages 67-68 Differentiated Instruction page 334(Teacher Edition Activity) Practice and Problem Solving (Word problems application in 	 Textbook ✓ NGSSS Practice (Box) page 339 ✓ Practice Textbook pp.345-346 ✓ Check for understanding p.345 ✓ Study Guide and Intervention workbook pages 69-70 ✓ Differentiated Instruction page 347(Teacher Edition Activity) ✓ Practice and Problem Solving (Word 	 Textbook ✓ NGSSS Practice (Box) page 347 ✓ Practice Textbook pp.352-354 ✓ Check for understanding p.352 ✓ Study Guide and Intervention workbook pages 71-72 ✓ Differentiated Instruction page 350(Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems 	
textbook) ✓ H.O.T. Problems for Common Core page 338 (65-69) Activity 1:	 problems application in textbook) ✓ H.O.T. Problems for Common Core page 346 (43-48) 	application in textbook) ✓ H.O.T. Problems for Common Core page 354 (63- 68) Activity 1:	
Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities	Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs	

(Also see resource page for other resources)



Other Projects can be used from the Common Core

websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

orm for educators to Collaborate Plan Align Learn Motivate Share

on construction of graphs (Also see resource page for other resources)



Collaborate Plan Align Learn Motiv Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

(Also see resource page for other resources)

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 6: Polynomial and Polynomial		Unit Essential Question:	
Functions		How do you use tools including factoring to transform and solve polynomial equations?	
Semester: TWO	Grading Period: 2		
	Pacing: 21 days		
Concept:		Concept:	Concept:
Section 6-4: Analyzing Gra	aphs of Polynomial	Section 6-5: Solving Polynomial Equations	Section 6-6: The Remainder and Factor Theorems
Functions		Pacing 3 days	Pacing 3 days
Pacing 3 days			
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)
MA.912.2.6 –Identify and graph common functions		MA.912.A.4.3-Factor polynomial expressions	MA.912.A.4.6-Use theorems of polynomial behavior to
(including, but not limited to linear, rational,			find the zeros of a polynomial function.
quadratic, cubic, radical, absolute value).		MA.912.A.4.10-Use polynomial equations to	
		solve real-world problems.	MA.912.A.4.8-Describe the relationships among the
MA.912.A.4.5-Graph polynomial functions with and			solutions of an equation, the zeros of a function, the x-
without technology and describe the end behavior			intercepts of a graph, and the factors of a polynomial
			expression, with and without technology. Also addresses
			MA.912.A.4.3.

Course Pacing Guide				
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):		
		Domain: Arithmetic with Polynomials and Rational		
Domain: Arithmetic with Polynomials and Rational	Domain: Arithmetic with Polynomials and	Expressions		
Expressions	Rational Expressions			
•		A.APR.1 Perform arithmetic operations on polynomials		
A.APR.1 Perform arithmetic operations on	A.APR.1 Perform arithmetic operations on			
polynomials	polynomials	Domain: The Complex Number System		
. ,				
Domain: The Complex Number System	Domain: The Complex Number System	N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial		
		identities and equations. Polynomials with real		
N.CN.7, (+) 8, (+) 9: Use complex numbers in	N.CN.7, (+) 8, (+) 9: Use complex numbers in	coefficients.		
polynomial identities and equations. Polynomials	polynomial identities and equations.			
with real coefficients.	Polynomials with real coefficients.	Domain: Linear, Quadratic, and Exponential Models		
Domain Interpreting Functions		F.LE.4-Construct and compare linear, quadratic, and		
		exponential models and solve problems.		
F.IF.7b,7c,7e,8,9 Analyze Functions using different				
representations				
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you multiply, divide and simplify	How do you factor polynomials?	How do you evaluate functions by using synthetic		
monomials and expressions involving powers?	How do you solve polynomial equations by	substitution?		
How do you add, subtract and multiply	factoring?	How do you determine whether a binomial is a factor of		
polynomials?		a polynomial by using synthetic substitution?		
Vocabulary:	Vocabulary:	Vocabulary:		
 Simplify 	 Prime polynomials 	 Synthetic substitution 		
Degree of a polynomial	 Quadratic form 	Depressed polynomial		

Course Pacing Guide Resources: Resources: Resources: ✓ NGSSS Practice (Box) pg 355 Textbook Textbook ✓ NGSSS Practice (Box) page 364 \checkmark Practice Textbook pp.361-362 ✓ NGSSS Practice (Box) page 375 ✓ Check for understanding p.351 ✓ Practice Textbook pp.372-373 ✓ Practice Textbook pp.380-381 ✓ Study Guide and Intervention ✓ Check for understanding p.372 Check for understanding p.380 \checkmark ✓ Study Guide and Intervention Study Guide and Intervention workbook pages workbook pages 73-74 \checkmark ✓ Differentiated Instruction page 360 workbook pages 75-76 77-78 (Teacher Edition Activity) ✓ Differentiated Instruction page ✓ Differentiated Instruction page 382(Teacher Practice and Problem Solving 375(Teacher Edition Activity) Edition Activity) ✓ Practice and Problem Solving (Word problems (Word problems application in ✓ Practice and Problem Solving (Word) problems application in textbook) application in textbook) textbook) ✓ H.O.T. Problems for Common Core page 381 (36-

 ✓ H.O.T. Problems for Common Core page 363 (47-53)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

 ✓ H.O.T. Problems for Common Core page 374 (79-83)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u> Activity 1:

43)



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 6: Polynomial and Polynomial		Unit Essential Question:	
Functions		How do you use tools including factoring to transform and solve polynomial equations?	
	Creding Deried: 2	-	
Semester: Two	Grading Period: 2		
2	Pacing: 21 days		
Concept:		Concept:	
Section 6-7: Roots and Ze	ros	Section 6-8: Rational Zero Theorem	
Pacing 3 days		Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	
MA.912.A.4.6-Use theorems of polynomial		MA.912.A.4.6-Use theorems of polynomial	
behavior to find the zeros	s of a polynomial function.	behavior to find the zeros of a polynomial	
, ,		function.	
MA.912.A.4.8-Describe the relationships among the			
solutions of an equation, the zeros of a function.		MA.912.A.4.8-Describe the relationships	
the x-intercepts of a graph, and the factors of a		among the solutions of an equation, the zeros	
polynomial expression, with and without		of a function, the x-intercepts of a graph, and	
technology. Also addresses MA 912 A 4 3		the factors of a polynomial expression, with	
		and without technology Also addresses	
		$M\Lambda 012 \Lambda \Lambda 3$	
		IVIA.J12.A.4.J.	

	Course Pacing Guide	
Common Core Standards:	Common Core Standard(s):	
Domain: Arithmetic with Polynomials and Rational Expressions	Domain: Arithmetic with Polynomials and Rational Expressions	
zeros and factors of polynomials	A.APR.1 Perform arithmetic operations on polynomials	
Domain: The Complex Number System	A ADD2 2. Understand the relationship	
N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial identities and equations. <i>Polynomials</i>	between zeros and factors of polynomials	
with real coefficients.	A.APR.6 (+) 5: Rewrite rational expressions	
Domain Interpreting Functions	Domain: The Complex Number System	
F.IF.7b,7c,7e,8,9 Analyze Functions using different representations	N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial identities and equations. <i>Polynomials with real coefficients.</i>	
	Domain Interpreting Functions	
	F.IF.7b,7c,7e,8,9 Analyze Functions using different representations	
Lesson Essential Question: How do you determine the number and type of roots for a polynomial equation?	Lesson Essential Question: How do you identify possible rational zeros of a polynomial function?	
How do you find the zeros of a polynomial function?	How do you find all of the rational zeros of a polynomial function?	
 Vocabulary: Fundamental Theorem of Algebra Zeros Factors Roots Complex Conjugate Theorem Descartes's Rule of Signs 	 Vocabulary: Rational Zero Theorem Corollary to the Rational Zero Theorem 	

Course Pacing Guide			
Resources:	Resources:		
 NGSSS Practice (Box) pg 382 Practice Textbook pp.388-389 Check for understanding p.388 Study Guide and Intervention workbook pages 79-80 Differentiated Instruction page 390 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 389 (56-60) 	 Textbook ✓ NGSSS Practice (Box) page 390 ✓ Practice Textbook pp.393-395 ✓ Check for understanding p.393 ✓ Study Guide and Intervention workbook pages 81-82 ✓ Differentiated Instruction page 393(Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 395 (46-51) 		
A craphic calculator Activity Cher Resources: Online or CD Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) More Projects can be used from the Common Core websites: Common Core Standards and Activity site: MWW.CPALMS.ORG	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) When Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG		

Common Core Standards Activity site:			
WWW.CPALMS.ORG			
Incorporate Common Core 8 Mathematical			
Practic	es		
	Make sense of problems and persevere in solving them		
\succ	Reason abstractly and quantitatively		
\triangleright	Construct viable arguments and critique		
	the reasoning of others		
\triangleright	Model with mathematics		
\triangleright	Use appropriate tools strategically		
\triangleright	Attend to precision		
\triangleright	Look for and make use of structure		
\triangleright	Look for and express regularity in repeated		
	reasoning		

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill
Unit Title:		Unit Essential Question:
Chapter 6: Polynomial an	d Polynomial Functions	How do you use tools including factoring to
		transform and solve polynomial equations?
Semester: 1	Grading Period: 1	
	Pacing: 24 days	
Concept:		
Chapter 6 Study Guide/ Re	eview and Tests	
Pacing 2 days		
NGSSS Standard(s):		Common Core Standards:
MA.912.2.6 –Identify and	graph common functions (including, but not limited to linear, rational,	Domain: Arithmetic with Polynomials and Rational
quadratic, cubic, radical, a	bsolute value).	Expressions
MA.912.4.2-Add, subtract	and multiply polynomials Also assess MA.912.A.1.3 and MA.912.A.1.4	A.APR.1 Perform arithmetic operations on polynomials
MA.912.A.4.3-Factor poly	nomial expressions	A.APR2,3: Understand the relationship between zeros
		and factors of polynomials
MA.912.A.4.4- Divide poly	nomials by monomials and polynomials with various techniques, including	
synthetic division		A.APR.6 (+) 5: Rewrite rational expressions
MA.912.A.4.5-Graph polyr	nomial functions with and without technology and describe the end behavior	Domain: The Complex Number System
MA.912.A.4.6-Use theorer	ns of polynomial behavior to find the zeros of a polynomial function.	N.CN.7, (+) 8, (+) 9: Use complex numbers in polynomial
		identities and equations. <i>Polynomials with real</i>
MA.912.A.4.8-Describe the relationships among the solutions of an equation, the zeros of a function, the		coefficients.
x-intercepts of a graph, and the factors of a polynomial expression, with and without technology. Also		
adaresses MA.912.A.4.3.		Domain Interpreting Functions
IVIA.912.A.4.10-Use polynomial equations to solve real-world problems.		F.IF./D,/C,/E,8,9 Analyze Functions using different
		representations

✓ Chapter 6 -Vocabulary Check: page 397

 Chapter 6 Study Guide and Review pages 398-400

- ✓ Chapter 6 Cumulative Test page 401
- ✓ Preparing for Standardized Tests pp.402-403
- ✓ NGSSS Practice Test 404-405

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 7: Inverses and Radical		Unit Essential Question:	
Functions and Relations		How do you describe and analyze the relationship between a function and its inverse?	
		How do you develop the definition of logarithm by exploring the relationship between exponential	
Semester: TWO	Grading Period: 2	functions and their inverses?	
	Pacing: 24 days	How do you determine the solutions of square r	oot equations using algebraic methods?
Concept:		Concept:	Concept:
Section 7-1 Operations on Functions		Section 7-2: Inverse Functions and Relations	Section 7-3: Square Root Functions and Inequalities
Pacing 3 days		Section 7-2 Extended Graphing Technology	Pacing 4 days
		Labs	
		Pacing 5 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)
MA.912.A.2.7 Perform operations of functions		MA.912.A.2.11 Solve problems involving	MA.912.A.2.6 Identify and graph common functions
algebraically, numerically and graphically.		functions and their inverses.	(including, but not limited to linear, rational, quadratic,
			cubic, radical, absolute value).
MA.912.A.2.8 Determine the composition of			
functions			

Course Pacing Guide			
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):	
		Domain : Building Functions	
Domain : Building Functions	Domain : Building Functions		
		F.BF.1b: Build a function that models a relationship	
F.BF.1b: Build a function that models a relationship	F.BF.1b: Build a function that models a	between two quantities	
between two quantities	relationship between two quantities		
		F.BF.3,4a: Build new functions from existing functions.	
F.BF.3,4a: Build new functions from existing	F.BF.3,4a: Build new functions from existing	Include simple radical, rational, and exponential	
functions. Include simple radical, rational, and	functions. Include simple radical, rational, and	functions; emphasize common effect of each	
exponential functions; emphasize common effect of	exponential functions; emphasize common	transformation across function types	
each transformation across function types	effect of each transformation across function		
	types		
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:	
How do you find the sum, difference, product and	How do you find the inverse of a function or	How do you graph and analyze square root functions?	
quotient of functions?	relation?	How do you graph square root inequalities?	
How do you find the compositions of functions?	How do you determine whether two functions		
	or relations are inverses?		
Vocabulary:	Vocabulary:	Vocabulary:	
 Composition of functions 	 Inverse relation 	 Square root functions 	
	 Inverse function 	 Radical functions 	
		 Square root inequality 	

Course Pacing Guide Resources: Resources: Resources: ✓ Getting started page 407 Textbook Textbook Practice Textbook pp.413-414 ✓ NGSSS Practice (Box) page 416 ✓ NGSSS Practice (Box) page 422 \checkmark ✓ Practice Textbook pp.420-421 ✓ Practice Textbook pp.427-429 ✓ Check for understanding p.413 ✓ Check for understanding p.372 ✓ Study Guide and Intervention Check for understanding p.427 \checkmark ✓ Study Guide and Intervention Study Guide and Intervention workbook pages workbook pages 83-84 \checkmark workbook pages 85-86 ✓ Differentiated Instruction page 415 87-88 (Teacher Edition Activity) ✓ Differentiated Instruction page 428 (Teacher

- \checkmark Practice and Problem Solving (Word problems application in textbook)
- \checkmark H.O.T. Problems for Common Core page 415 (59-63)

Activity 1:



earch Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

- ✓ Differentiated Instruction page 419 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 421 (52-56)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Collaborate Plan Align Learn Motiv Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

✓ Practice and Problem Solving (Word problems

✓ H.O.T. Problems for Common Core page

(Also see resource page for other resources)

Edition Activity)

✓ 429 (47-53)

application in textbook)



Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG



Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 7: Inverses and Radical		Unit Essential Question:	
Functions and Relations		How do you describe and analyze the relationship between a function and its inverse?	
		How do you develop the definition of logarithm	by exploring the relationship between exponential
Semester: TWO	Grading Period: 2	functions and their inverses?	
-	Pacing: 24 days	How do you determine the solutions of square r	oot equations using algebraic methods?
Concept:		Concept:	Concept:
Section 7-4: The Nth Root	S	Section 7-5 : Operations with Radical	Section 7-6: Rational Exponents
Section 7-4 Extended: Gra	iphing Technology Lab:	Expressions	Pacing 4 days
Graphing <i>nth</i> Root Function	ons	Pacing 4 days	
Pacing 4 days			
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)
MA 912 A 10 3. Decide w	hether a given statement	MA 912 A 6 2- Add Subtract multiply divide	MA 912 A 2.6 Identify and graph common functions
is always sometimes or r	nether a given statement	radical expressions (square roots and higher)	(including but not limited to linear rational quadratic
involving linear or quadra	tic expressions	Also assesses MA 912 \wedge 1 Λ	(including, but not inflict to infeat, rational, quadratic,
equations or inequalities	rational or radical		
expressions or logarithmic or exponential function			
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):
			Domain : Building Functions
Domain : Building Functions		Domain : Building Functions	
			F.BF.1b: Build a function that models a relationship
F.BF.1b: Build a function t	hat models a relationship	F.BF.1b: Build a function that models a	between two quantities
between two quantities		relationship between two quantities	
			F.BF.3,4a: Build new functions from existing functions.
F.BF.3,4a: Build new funct	tions from existing	F.BF.3,4a: Build new functions from existing	Include simple radical, rational, and exponential
functions. Include simple	radical, rational, and	functions. Include simple radical, rational, and	functions; emphasize common effect of each
exponential functions; em	phasize common effect of	exponential functions; emphasize common	transformation across function types
each transformation across function types		effect of each transformation across function	
		types	
Lesson Essential Question:		Lesson Essential Question:	Lesson Essential Question:
How do you simplify radicals?		How do you simplify radical expressions?	How do you write rational exponents with radical form,
How do you use calculator to approximate radicals?		How do you add, subtract, multiply, and divide	and vice versa?
		radical expressions?	How do you simplify expressions in exponential or
			radical form?

Course Pacing Guide			
Vocabulary:	Vocabulary:	Vocabulary:	
Nth root	 Rationalize the denominator 	 Rational Exponents (concept box) 	
 Radical sign 	 Like radical expressions conjugate 	 Expressions with Rational Exponents (rule box) 	
Index			
Radicand			
 Principal root 			

Course Pacing Guide				
Resources:	Resources:	Resources:		
 ✓ Getting started page 430 ✓ Practice Textbook pp.433-434 ✓ Check for understanding p.433 ✓ Study Guide and Intervention workbook pages 89-90 ✓ Differentiated Instruction page 433 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 435 (59-69) 	 Textbook NGSSS Practice (Box) page 436 Practice Textbook pp. 443-444 Check for understanding p.443 Study Guide and Intervention workbook pages 91-92 Differentiated Instruction page 445 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 444 (60-65) 	 Textbook ✓ NGSSS Practice (Box) page 445 ✓ Practice Textbook pp.449-451 ✓ Check for understanding p.449 ✓ Study Guide and Intervention workbook pages 93-94 ✓ Differentiated Instruction page 448 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 451 (66-70) 		
Graphic Calculator page 437 Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) Cher Projects can be used from the Common Core websites: Common Core Standards and Activity site:	Other Resources: Online or CD Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources)	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) When the common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG		

WWW.CPALMS.ORG

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 7: Inverses and Radical		Unit Essential Question:	
Functions and Relations		How do you describe and analyze the relationship between a function and its inverse?	
		How do you develop the definition of logarithm by exploring the relationship between exponential	
Semester: TWO Grading Period: 2		functions and their inverses?	
	Pacing: 24 days	How do you determine the solutions of square root equations using algebraic methods?	
Concept:			
Section 7-7: Solving Radio	cal Equations and		
Inequalities			
Section 7-7 Graphing Tec	hnology Lab		
Pacing 5 days	0,		
NGSSS Standards(s)		Common Core Standards:	
MA.912.A.6.5 Solve equa	tions that contain radical	Domain : Building Functions	
expressions			
		F.BF.1b: Build a function that models a	
MA.912.A.10.3: Decide w	hether a given statement	relationship between two quantities	
is always, sometimes, or	never true (statements		
involving linear or quadra	atic expressions,	F.BF.3,4a: Build new functions from existing	
equations, or inequalities	s. rational or radical	functions. Include simple radical, rational, and	
expressions or logarithmi	ic or exponential function.	exponential functions: emphasize common	
- p		effect of each transformation across function	
		types	
		Domain: Reasoning with Equations and	
		Inequalities	
		A RFI 11 · Represent and solve equations and	
		inequalities graphically	
Lesson Essential Question:			
How do you solve equations containing radicals?			
How do you solve inequalities containing radicals?			
Vocabulary:			
 Radical equation 			
 Extraneous solut 	ion		
Radical inequality	v		

Resources:				
✓ Getting started page 452				
✓ Practice Textbook pp 456-457				
✓ Check for understanding p.456				
✓ Study Guide and Intervention				
workbook pages 95-96				
✓ Differentiated Instruction page 459				
(Teacher Edition Activity)				
 Practice and Problem Solving 				
(Word problems application in				
textbook)				
 H.O.T. Problems for Common Core 				
page 458 (67-75)				
Graphic Calculator can be used				
Activity 1:				
Search Smarttech.com websites for				
smartboard activities to find more activities on				
construction of graphs				
Also see resource page for other resources)				
Forder surface to educate the Collaborate Plan Align Learn Motivate Share				
Other Projects can be used from the Common Core websites:				
Common Core Standards and Activity site:				
WWW.CPALMS.ORG				
Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
---	---------------------------	--	---	--
Unit Title: Chapter 7: Inverses and Radical		Unit Essential Question:		
Functions and Relations		How do you describe and analyze the relationship between a function and its inverse?		
	Creding Devied: 2	How do you develop the definition of logarithm	by exploring the relationship between exponential	
Semester: TWO	Grading Period: 2	How do you determine the solutions of square r	oot equations using algebraic methods?	
Concent:	Pacifig. 24 uays	now do you determine the solutions of square r		
Chapter 7 Review/Study G	iuide/Tests			
NGSSS Standards(s)		Common Core Standards:		
MA.912.A.2.6 Identify and	l graph common functions	Domain : Building Functions		
(including, but not limited	to linear, rational,			
quadratic, cubic, radical, a	bsolute value).	F.BF.1b: Build a function that models a		
	anations of functions	relationship between two quantities		
MA.912.A.2.7 Perform ope	and graphically	E RE 2 42: Ruild now functions from existing		
algebraically, numerically	anu graphicany.	functions Include simple radical rational and		
MA.912.A.2.8 Determine t	the composition of	exponential functions: emphasize common		
functions		effect of each transformation across function		
		types		
MA.912.A.6.5 Solve equat	ions that contain radical			
expressions				
is always sometimes or n	nether a given statement			
involving linear or quadrat	tic expressions.			
equations, or inequalities, rational or radical				
expressions or logarithmic or exponential function.				
Chapter 7 Vocabulary Che	eck page 462		✓ Chapter 7 Study Guide and Review pages 463-	
			466	
			✓ Chapter 7 Cumulative Test page 467	
			Preparing for Standardized Tests pp.468-469 NGSSS Practice Test 470 471	
			• 100000 Flacille Test 470-471	

		Course Pacing Guide		
Unit Title: Chapter 8: Exponential and Logarithmic Functions and Relations		Unit Essential Question: How do you solve Exponential Equations and Inequalities?		
Semester: TWO	Grading Period: 2 Pacing: 24 days	How do you determine the solutions of logarithmic equations using algebraic methods?		
Concept: Section 8-1: Graphing Exponential Functions Pacing 3 days		Concept: Section 8-2 Solving Exponential Equations and Inequalities Pacing 4 days	Concept: Section 8-3 Logarithms and Logarithmic Functions Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.A.8.5 Graph exponential and logarithmic functions.		MA.912.A.8.5 Graph exponential and logarithmic functions.	MA.912.A.8.1 Define exponential and logarithmic functions and determine their relationship.	
MA.912.A.8.7 Solve applications of exponential growth and decay. <i>Also addresses LA.912.4.2.1, MA.912.A.2.10, MA.912. A.8.1, and MA.912.A.10.3</i>		MA.912.A.10.3: Decide whether a given statement is always, sometimes, or never true (statements involving linear or quadratic expressions, equations, or inequalities, rational or radical expressions or logarithmic or exponential function	MA.912.A.8.2 Define and use the properties of logarithms to simplify logarithmic to simplify logarithmic expressions and to find their approximate values. <i>Also</i> <i>addresses MA.912.A.2.10 and MA.912.A.8.3</i>	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain : Building Functions E BE 1h: Build a function that models a relationship		Domain : Building Functions F.BF.1b: Build a function that models a	F.BF.1b: Build a function that models a relationship between two quantities	
between two quantities		relationship between two quantities	E BE 2.42: Build now functions from ovisting functions	
F.BF.3,4a: Build new funct functions. <i>Include simple</i> <i>exponential functions; em</i> <i>each transformation acros</i>	ions from existing radical, rational, and phasize common effect of ss function types	F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	

Course Pacing Guide				
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you graph exponential growth functions?	How do you solve exponential equations?	How do you write rational exponents with radical form,		
How do you graph exponential decay functions?	How do you solve exponential inequalities?	and vice versa?		
		How do you simplify expressions in exponential or		
		radical form?		
Vocabulary:	Vocabulary:	Vocabulary:		
 Exponential functions 	 Exponential equation 	 Logarithm 		
Exponential growth	 Compound interest 	 Logarithmic function 		
 Asymptote 	 Exponential inequality 			
 Growth factor 				
 Exponential decay 				
 Decay factor 				

Course Pacing Guide			
Resources:	Resources:	Resources:	
 ✓ Getting started page 473 ✓ Practice Textbook pp.479-481 ✓ Check for understanding p.479 ✓ Study Guide and Intervention workbook pages 97-98 ✓ Differentiated Instruction page 477 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 481 (34-38) 	 Textbook ✓ NGSSS Practice (Box) page 482 ✓ Practice Textbook pp. 488-489 ✓ Check for understanding p.488 ✓ Study Guide and Intervention workbook pages 99-100 ✓ Differentiated Instruction page 491 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 490 (42-49) 	 Textbook ✓ NGSSS Practice (Box) page 491 ✓ Practice Textbook pp. 496-498 ✓ Check for understanding p.496 ✓ Study Guide and Intervention workbook pages 101-102 ✓ Differentiated Instruction page 499 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 498 (60-66) 	
Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) More activities to find more activities on construction of graphs (Also see resource page for other resources) More activities to find more activities on construction of graphs (Also see resource page for other resources) More activities to find more activities on construction of graphs (Also see resource page for other resources)	Graphic Calculator page 483 Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)	Graphic calculator page 500-501 Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)	

websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG



Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 8: Exponential and Logarithmic		Unit Essential Question:		
Functions and Relations		How do you solve Exponential Equations and Ine	equalities?	
Semester: TWO	Grading Period: 2	How do you determine the solutions of logarith	nic equations using algebraic methods:	
	Pacing: 24 days			
Concept:		Concept:	Concept:	
Section 8-4: Solving Logari	thmic Equations and	Section 8-5 Properties of Logarithms	Section 8-6 Common Logarithms	
Inequalities		Pacing 3 days	Pacing 3 days	
Pacing 3 days		NGSSS Standards(s)	NGSSS Standards(c)	
10555 Standards(5)				
MA.912.A.8.2 Define and u	use the properties of	MA.912.A.8.2 Define and use the properties of	MA.912.A.8.2 Define and use the properties of	
logarithms to simplify loga	arithmic to simplify	logarithms to simplify logarithmic to simplify	logarithms to simplify logarithmic to simplify logarithmic	
logarithmic expressions ar	nd to find their	logarithmic expressions and to find their	expressions and to find their approximate values. Also	
approximate values. Also a	addresses MA.912.A.2.10	approximate values. Also addresses	addresses MA.912.A.2.10 and MA.912.A.8.3	
and MA.912.A.8.3		MA.912.A.2.10 and MA.912.A.8.3	MA 012 A 9 6 Use the change of base formula Also	
MA 912 A 8 5 Graph exponential and logarithmic			addresses MA 912 A 8 5	
functions.				
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
			Domain : Building Functions	
Domain : Building Functio	ons	Domain : Building Functions	E RE the Ruild a function that models a relationship	
F PF 1b: Build a function that models a relationship		F BE 1h: Build a function that models a	hetween two quantities	
between two quantities		relationship between two quantities		
			F.BF.3,4a: Build new functions from existing functions.	
F.BF.3,4a: Build new functions from existing		F.BF.3,4a: Build new functions from existing	Include simple radical, rational, and exponential	
functions. Include simple radical, rational, and		functions. Include simple radical, rational, and	functions; emphasize common effect of each	
exponential functions; emphasize common effect of		exponential functions; emphasize common	transformation across function types	
each transformation across function types		effect of each transformation across function		
		iypes		
functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types		functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	functions; emphasize common effect of each transformation across function types	

Course	Pacing	Guide
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Lesson Essential Question: How do you solve logarithmic equations? How do you solve logarithmic inequalities?	Lesson Essential Question: How do you simplify and evaluate expressions using the properties of logarithms? How do you solve logarithmic equations using the properties of logarithms?	Lesson Essential Question: How do you solve exponential equations and inequalities using common logarithms? How do you evaluate logarithmic expressions using the Change of Base Formula?
Vocabulary:	 Vocabulary: Product Property of Logarithms (key concept box) Quotient Property of Logarithms (key concept box) Power Property of Logarithms (Key Concept box) 	Vocabulary:

Resources:

- ✓ Getting started page 499
- ✓ Practice Textbook pp.504-505
- ✓ Mid-chapter Quiz pg. 508
- ✓ Check for understanding p.504
- ✓ Study Guide and Intervention workbook pages 103-104
- ✓ Differentiated Instruction page 507 (Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 506 (38-44)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 507
- ✓ Practice Textbook pp. 512-513
- ✓ Check for understanding p.512
- ✓ Study Guide and Intervention workbook pages 105-106
- ✓ Differentiated Instruction page 515 (Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 514 (61-68)

Activity 1:



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 515
- ✓ Practice Textbook pp. 519-521
- ✓ Check for understanding p.519
- Study Guide and Intervention workbook pages 107-108
- ✓ Differentiated Instruction page 522 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 521 (68-72)



Graphic Calculator page 523-424

Activity 1:



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Comm	on Core Standards Activity site:	
WWW	.CPALMS.ORG	
Incorp	orate Common Core 8 Mathematical	
Practic	es	
	Make sense of problems and persevere in solving them	
\succ	Reason abstractly and quantitatively	
\triangleright	Construct viable arguments and critique	
	Model with mathematics	
\triangleright	Use appropriate tools strategically	
\succ	Attend to precision	
\succ	Look for and make use of structure	
\triangleright	Look for and express regularity in repeated	
	reasoning	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 8: Exponential and Logarithmic		Unit Essential Question:	
Functions and Relations		How do you solve Exponential Equations and Inequalities?	
Semester: TWO	Grading Period: 2	How do you determine the solutions of logarithr	nic equations using algebraic methods?
Semester. Two	Pacing: 24 days		
Concept:	, , , , , , , , , , , , , , , , , , ,	Concept:	
Section 8-7: Base (e) and I	Natural Logarithms	Section 8-8	
Pacing 3 days		Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	
MA.912.A.8.2 Define and	use the properties of	MA.912.A.8.5 Graph exponential and	
logarithms to simplify loga	arithmic to simplify	logarithmic functions.	
logarithmic expressions ar	nd to find their		
approximate values. Also	addresses MA.912.A.2.10	MA.912.A.8.7 Solve applications of	
and MA.912.A.8.3		exponential growth and decay. Also assesses	
		MA.912.A.8.5 and MA.912.A.10.3	
growth and decay Also as	sesses MA 917 A 8 5 and		
MA.912.A.10.3	50505 Wi 1.512.7 1.0.5 Uliu		
Common Core Standards:		Common Core Standard(s):	
Domain : Building Functio	ons	Domain : Building Functions	
F.BF.1b: Build a function t	hat models a relationship	F.BF.1b: Build a function that models a	
between two quantities		relationship between two quantities	
F.BF.3,4a: Build new funct	ions from existing	F.BF.3,4a: Build new functions from existing	
runctions. Include simple radical, rational, and		tunctions. Include simple radical, rational, and	
exponential junctions; emphasize common effect of		effect of each transformation across function	
cuent dansjonnation across junction types		types	

Lesson Essential Question: How do you evaluate expressions involving the nature base and natural logarithm? How do you solve exponential equations and inequalities using natural logarithms.	Lesson Essential Question: How do you use logarithms to solve problems involving exponential growth and decay? How do you use logarithms to solve problems involving logistic growth?	
 Vocabulary: Natural base e Natural base exponential function Natural Logarithm 	 Vocabulary: Rate of continuous growth Rate of continuous decay Logistic growth model 	

	Course Pacing Guide	
Resources:	Resources:	
 Getting started page 522 Practice Textbook pp. 529-530 Check for understanding p.529 Study Guide and Intervention workbook pages 109-110 Differentiated Instruction page 531 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 530 (58-62) 	 Textbook ✓ NGSSS Practice (Box) page 531 ✓ Practice Textbook pp. 537-538 ✓ Check for understanding p.537 ✓ Study Guide and Intervention workbook pages 111-112 ✓ Differentiated Instruction page 539 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 538 (14-18) 	
Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Other Projects can be used from the Common Core websites:	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources)	
Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	Core websites: Common Core Standards and Activity site:	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 8: Exponential and Logarithmic Functions and Relations		Unit Essential Question: How do you solve Exponential Equations and Inequalities? How do you determine the solutions of logarithmic equations using algebraic methods?	
Semester: TWO	Grading Period: 2 Pacing: 24 days		
Concept: Chapter 8 : Study Guide/T PREP	ests and NGSSS /ACT/SAT		
NGSSS Standards(s)		NGSSS Standards(s)	
MA.912.A.8.2 Define and use the properties of logarithms to simplify logarithmic to simplify logarithmic expressions and to find their approximate values. <i>Also addresses MA.912.A.2.10 and MA.912.A.8.3</i>		MA.912.A.8.5 Graph exponential and logarithmic functions.	
MA.912.A.8.7 Solve applications of exponential growth and decay. <i>Also assesses MA.912.A.8.5 and MA.912.A.10.3</i>			
Common Core Standards:		Common Core Standards:	
Domain : Building FunctionsF.BF.1b: Build a function that models a relationship between two quantitiesF.BF.3,4a: Build new functions from existing functions. <i>Include simple radical, rational, and</i>		 Domain : Building Functions F.BF.1b: Build a function that models a relationship between two quantities F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; amphasize common offect of each transformation across 	
each transformation across function types		function types	
Chapter 8 Vocabulary Check page 541		 ✓ Chapter 8 Study Guide and Review pages 542-544 ✓ Chapter 8 Practice Test page 545 ✓ Preparing for Standardized Tests pp. 546-547 ✓ NGSSS Practice Test 548-549 	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 9: Rational Functions and		Unit Essential Question:		
Relations				
Semester: TWO	Grading Period: 2 Pacing: 24 days			
Concept:		Concept:	Concept:	
Section 9-1: Multiplying a	nd Dividing Rational	Section 9-2: Adding and Subtracting Rational	Section 9-3 Graphing Reciprocal Functions	
Expressions		Expressions	Pacing 3 days	
Pacing 3 days		Pacing 3 days		
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.A.5.2 Add, Subtract, multiply and divide rational expressions		MA.912.A.5.2 Add, Subtract, multiply and divide rational expressions	MA.912.A.5.6 Identify removable and non-removable discontinuities and vertical, horizontal, and oblique	
MA.912.A.5.3 Simplify complex fractions. <i>Also addresses MA.912.A.10.3</i>			asymptotes of a graph of a rational function, find the zeros, and graph the function. <i>Also assesses MA.912.A.2.6</i>	
			LA.910.1.6.1 The student will use new vocabulary that is introduced and taught directly.	

Course Pacing Guide			
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s):	
Domain: Arithmetic with Polynomials and Rational	Domain: Arithmetic with Polynomials and	Domain: Arithmetic with Polynomials and Rational	
Expressions	Rational Expressions	Expressions	
A.APR.6, (+) 7: Rewrite rational expressions	A.APR.6, (+) 7: Rewrite rational expressions	A.APR.6, (+) 7: Rewrite rational expressions	
Domain : Building Functions	Domain : Building Functions	Domain : Building Functions	
F.BF.1b: Build a function that models a relationship between two quantities	F.BF.1b: Build a function that models a relationship between two quantities	F.BF.1b: Build a function that models a relationship between two quantities	
F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	
Lesson Essential Question: How do you simplify rational expressions? How do you simplify complex fractions?	Lesson Essential Question: How do you determine the LCM of polynomials? How do you add, subtract rational expressions?	Lesson Essential Question: How do you determine properties of reciprocal functions? How do you graph transformations for reciprocal functions?	
 Vocabulary: Rational expression Complex fraction 	 Vocabulary: Adding Rational Expressions (Key concept box) Subtracting Rational Expressions (Key concept box) 	Vocabulary:	

Resources:

- ✓ Getting started page 551
- Practice Textbook pp.557-559 \checkmark
- ✓ Check for understanding p.557
- ✓ Study Guide and Intervention workbook pages 113-114
- ✓ Differentiated Instruction page 561 (Teacher Edition Activity)
- Practice and Problem Solving \checkmark (Word problems application in textbook)
- \checkmark H.O.T. Problems for Common Core page 560 (59-65)

Activity 1:



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(Also see resource page for other resources)



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Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 561
- ✓ Practice Textbook pp. 565-567
- Check for understanding p.565 \checkmark
- ✓ Study Guide and Intervention workbook pages 115-116
- ✓ Differentiated Instruction page 566 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 567 (63-66)

Activity 1:

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Resources:

Textbook

- ✓ NGSSS Practice (Box) page 568
- ✓ Practice Textbook pp. 572-574
- Check for understanding p.572 \checkmark
- Study Guide and Intervention workbook pages \checkmark 117-118
- ✓ Differentiated Instruction page 572 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 574 (38-42)

Activity 1:



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WWW.CPALMS.ORG



Comm	on Core Standards Activity site:	
WWW	.CPALMS.ORG	
Incorp	orate Common Core 8 Mathematical	
Practic	es	
	Make sense of problems and persevere in solving them	
\succ	Reason abstractly and quantitatively	
\triangleright	Construct viable arguments and critique	
	the reasoning of others	
\triangleright	Model with mathematics	
\triangleright	Use appropriate tools strategically	
\triangleright	Attend to precision	
\triangleright	Look for and make use of structure	
\triangleright	Look for and express regularity in repeated	
	reasoning	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 9: Rational Functions and Relations		Unit Essential Question: How do you solve rational equations and inequalities?		
Semester: TWO	Grading Period: 2 Pacing: 24 days			
Concept:		Concept:	Concept:	
Section 9-4: Graphing Rati	onal Functions	Section 9-5: Variations Functions	Section 9-6 Solving Rational Equations and Inequalities	
Pacing 3 days		Pacing 3 days	Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.A.2.12 Solve prob	lems using direct,	MA.912.A.2.12 Solve problems using direct,	MA.912.A.5.5 Solve rational equations	
inverse, and joint variation	IS	inverse, and joint variations		
			MA.912.A.5.7 Solve real-world problems involving	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s):	
Domain: Arithmetic with Polynomials and Rational Expressions		Domain: Arithmetic with Polynomials and Rational Expressions	Domain: Arithmetic with Polynomials and Rational Expressions	
A.APR.6, (+) 7: Rewrite rat	ional expressions	A.APR.6, (+) 7: Rewrite rational expressions	A.APR.6, (+) 7: Rewrite rational expressions	
Domain : Building Functio	ons	Domain : Building Functions	Domain : Building Functions	
F.BF.1b: Build a function that models a relationship between two quantities		F.BF.1b: Build a function that models a relationship between two quantities	F.BF.1b: Build a function that models a relationship between two quantities	
F.BF.3,4a: Build new functions from existing functions. <i>Include simple radical, rational, and</i> <i>exponential functions; emphasize common effect of</i> <i>each transformation across function types</i>		F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	

Course Pacing Guide			
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:	
How do you graph rational functions with vertical	How do you recognize and solve direct and	How do you solve rational equations?	
and horizontal asymptotes?	joint variation problems?	How do you solve rational inequalities?	
How do you graph rational functions with oblique	How do you recognize and solve inverse and		
asymptotes and point discontinuity?	combined variation problems?		
 Vocabulary: Rational function ,Vertical 	 Vocabulary: direct variation, constant 	 Vocabulary: Rational equation, weighted 	
asymptote, horizontal asymptote, oblique	of variation, joint variation, inverse	average, Rational inequality	
asymptote, point discontinuity	variation, combined variation		

Course Pacing Guide Resources: Resources: Textbook

- ✓ NGSSS Practice (Box) page 575
- \checkmark Mid-chapter Test page 576
- Practice Textbook pp.581-583 \checkmark ✓ Check for understanding p.581
- ✓ Study Guide and Intervention workbook pages 119-120
- ✓ Differentiated Instruction page 584 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- H.O.T. Problems for Common Core \checkmark page 583 (42-46)



Resources:

Graphic Calculator Activity page 585





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construction of graphs (Also see resource page for other resources)



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- ✓ NGSSS Practice (Box) page 584
- ✓ Practice Textbook pp. 590-591
- ✓ Check for understanding p.590
- ✓ Study Guide and Intervention workbook pages 121-122
- ✓ Differentiated Instruction page 591 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 592 (48-52)

Activity 1:



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Textbook

- ✓ NGSSS Practice (Box) page 593
- ✓ Practice Textbook pp. 600-601
- Check for understanding p.600 \checkmark
- Study Guide and Intervention workbook pages \checkmark 123-123
- ✓ Differentiated Instruction page 602 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 601 (36-39)



Graphic Calculator Activity page 603-604

Activity 1:



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WWW.CPALMS.ORG



Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 9: Rational Functions and Relations		Unit Essential Question:	
	· · ·	How do you solve rational equations and iner	qualities?
Semester: TWO	Grading Period: 2		
	Pacing: 24 days	How do you graph rational functions with ver	rtical and horizontal asymptotes?
		How do you graph rational functions with ob	lique asymptotes and point discontinuity?
Concept:			
Chapter 9 Study Guide an	d Tests		
NGSSS Standards(s)		Common Core Standards:	
MA.912.A.2.12 Solve prot	plems using direct, inverse, and joint	Domain: Arithmetic with Polynomials and	
variations		Rational Expressions	
MA.912.A.5.2 Add, Subtra	act, multiply and divide rational expressions	A.APR.6, (+) 7: Rewrite rational expressions	
MA.912.A.5.3 Simplify co	mplex fractions. Also addresses	Domain : Building Functions	
MA.912.A.10.3			
		F.BF.1b: Build a function that models a	
MA.912.A.5.5 Solve ration	hal equations	relationship between two quantities	
MA.912.A.5.7 Solve real-v	vorld problems involving rational equations	F.BF.3,4a: Build new functions from	
		existing functions. Include simple radical,	
MA.912.A.5.6 Identify ren	novable and non-removable discontinuities	rational, and exponential functions;	
and vertical, norizontal, a	nd oblique asymptotes of a graph of a	emphasize common effect of each	
MA.912.A.2.6	zeros, and graph the function. Also assesses	transjonnation across junction types	
Chapter O.Vecabulary Cha		. Chanter O Study Guide and Paview	
	eck page 005	pages 606-608	
		 ✓ Chapter 9 Practice Test page 609 	
		 Preparing for Standardized Tests 	
		(610-611)	
		✓ NGSSS Practice Test 612-613	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 10: Conic Sections		Unit Essential Question:		
		How do you describe a conic section as the intersection of a plane and a cone?		
Semester: TWO	Grading Period: 2	How do you describe and sketch conic sections of	circles, parabolas, ellipses and hyperbolas?	
	Pacing: 24 days	How do you solve systems of linear non linear	systems?	
Concept:	·	Concept:	Concept:	
Section 10-1: Midpoint an	d Distance Formula	Section 10-2: Parabolas	Section 10.3: Circles	
Pacing 3 days		Pacing 3 days	Explore 10.3	
			Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.G.1.1 Find the ler	ngths and midpoints of	MA.912.A.9.1 Write the equations of conic	MA.912.G.6.6 Given the center and the radius, find the	
line segments in two dime	ensional coordinate	sections in standard form and general form, in	equation of a circle in the coordinate plane or given the	
systems.		order to identify the conic section and to find	equation of a circle in center-radius form, state the	
		its geometric properties (foci, asymptotes,	center and the radius of the circle.	
		eccentricity., etc.)		
			MA.912.G.6.7 Given the equation of a circle in center-	
		MA.912.A.9.2 Graph conic sections with and	radius form or given the center and the radius of a circle,	
		without using graphing technology	sketch the graph of the circle. Also addresses MA.912.A.	
			9.1 and MA.912.A.9.2	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s)	
Domain : Building Function	ons	Domain: Expressing Geometric Properties	Domain: Expressing Geometric Properties with	
		with Equations.	Equations.	
F.BF.1b: Build a function t	hat models a relationship			
between two quantities		G.GPE.3: Translate between the geometric	G.GPE.3: Translate between the geometric description	
		description and the equation for a conic	and the equation for a conic section	
F.BF.3,4a: Build new funct	tions from existing	section		
functions. Include simple	radical, rational, and		Domain : Building Functions	
exponential functions; emphasize common effect of		Domain : Building Functions		
each transformation acros	ss function types		F.BF.3,4a: Build new functions from existing functions.	
		F.BF.3,4a: Build new functions from existing	Include simple radical, rational, and exponential	
		functions. Include simple radical, rational, and	functions; emphasize common effect of each	
		exponential functions; emphasize common	transformation across function types	
		effect of each transformation across function		
		types		

	Course Pacing Guide	
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:
How do you find the midpoint of a segment on the	How do you write equations of parabolas in	How do you write equations and circles?
coordinate plane?	standard form?	How do you graph circles?
How do you find the distance between two points	How do you graph parabolas?	
on the coordinate plane?		
Vocabulary:	Vocabulary:	Vocabulary:
 Midpoint formula (Key concept box) 	Parabola	✤ circle
 Distance formula (Key concept box) 	Focus	✤ center
	 Directrix 	 radius
	 Latus rectum 	
	 Standard from 	
	 General form 	

		Course Pacing Guide	
Resources:		Resources:	Resources:
 ✓ Get Ready for Chapter 10 page 615 ✓ Practice Textbook pp.619-621 ✓ Check for understanding p.619 ✓ Study Guide and Intervention workbook pages 125-126 ✓ Differentiated Instruction page 622 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 621 (42-46) 		 Textbook ✓ NGSSS Practice (Box) page 622 ✓ Practice Textbook pp. 627-628 ✓ Check for understanding p.627 ✓ Study Guide and Intervention workbook pages 127-128 ✓ Differentiated Instruction page 629 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 628 (37-40) 	 Textbook ✓ NGSSS Practice (Box) page 629 ✓ Practice Textbook pp.634-635 ✓ Check for understanding p.634 ✓ Study Guide and Intervention workbook pages 129-130 ✓ Differentiated Instruction page 637-Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 636 (62-67)
Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Mere Resource collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG		Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) We reserve to the collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG
Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hil	
Unit Title: Chapter 10: Conic Sections		Unit Essential Question:	
Semester: TWO Grading Period: 2 Pacing: 24 days		How do you describe a conic section as the inter How do you describe and sketch conic sections How do you solve systems of linear –non linear	rsection of a plane and a cone? circles, parabolas, ellipses and hyperbolas? systems?

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Course Pacing Guide			
Concept:	Concept:	Concept:	
Section 10-4: Ellipses	Section 10-5: Hyperbolas	Section 10.6: Identifying Conic Sections	
Pacing 3 days	Pacing 3 days	Pacing 3 days	
NGSSS Standards(s)	NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.A.9.1 Write the equations of conic sections in standard form and general form, in order to identify the conic section and to find its geometric properties (foci, asymptotes, eccentricity., etc.) MA.912.A.9.2 Graph conic sections with and without using graphing technology	MA.912.A.9.1 Write the equations of conic sections in standard form and general form, in order to identify the conic section and to find its geometric properties (foci, asymptotes, eccentricity., etc.)	MA.912.A.9.1 Write the equations of conic sections in standard form and general form, in order to identify the conic section and to find its geometric properties (foci, asymptotes, eccentricity., etc.) MA.912.A.9.2 Graph conic sections with and without using graphing technology	
without using graphing teemology	without using graphing technology	using graphing teenhology	
Common Core Standards: Domain: Expressing Geometric Properties with Equations.	Common Core Standard(s): Domain: Expressing Geometric Properties with Equations.	Common Core Standard(s) Domain: Expressing Geometric Properties with Equations.	
G.GPE.3: Translate between the geometric description and the equation for a conic section	G.GPE.3: Translate between the geometric description and the equation for a conic	G.GPE.3: Translate between the geometric description and the equation for a conic section	
	section		
Domain : Building Functions	Demoir - Duilding Functions	Domain : Building Functions	
F.BF.3,4a: Build new functions from existing functions. Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	F.BF.3,4a: Build new functions from existing functions. <i>Include simple radical, rational, and exponential functions; emphasize common</i>	F.BF.1b: Build a function that models a relationship between two quantities F.BF.3,4a: Build new functions from existing functions.	
	effect of each transformation across function types	Include simple radical, rational, and exponential functions; emphasize common effect of each transformation across function types	
Lesson Essential Question: How do you write equations of ellipses? How do you graph ellipses?	Lesson Essential Question: How do you write the equations of hyperbolas and graph hyperbolas?	Lesson Essential Question: How do you write equations of conic sections in standard form? How do you identify conic sections from their equations.	

Course Pacing Guide			
Vocabulary:	Vocabulary:	Vocabulary:	
 Ellipse 	 Hyperbola 	 Standard forms of Conic sections (Concept box) 	
 Foci 	 Transverse axis 	Classify conics with the discriminant (concept	
 Major axis 	 Conjugate axis 	box)	
 Minor axis 	 Foci 		
✤ Center	 Vertices 		
 Vertices 	 Co-vertices 		
 Co-vertices 	 Constant difference 		
 Constant sum 			

Resources:

- ✓ NGSSS Practice (box) page 637
- Practice Textbook pp. 644-645 \checkmark
- ✓ Check for understanding p.644 ✓ Study Guide and Intervention
- workbook pages 131-132 ✓ Differentiated Instruction page
- 646 (Teacher Edition Activity)
- Practice and Problem Solving \checkmark (Word problems application in textbook)
- \checkmark H.O.T. Problems for Common Core page 645 (40-46)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



Collaborate Plan Align Learn Motivate Share Other Projects can be used from the Common Core

websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 646
- ✓ Mid-chapter Test page 647
- Practice Textbook pp. 652-654 \checkmark
- Check for understanding p.652 \checkmark
- ✓ Study Guide and Intervention workbook pages 133-134
- ✓ Differentiated Instruction page 655 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 654 (44-49)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 655
- ✓ Practice Textbook pp. 658-660
- Check for understanding p.658 \checkmark
- ✓ Study Guide and Intervention workbook pages 135-136
- ✓ Differentiated Instruction page 660-Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 659 (44-47)



Graphic Calculator Activity page 661

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG



Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 10: Conic Sections		Unit Essential Question:		
		How do you describe a conic section as the intersection of a plane and a cone?		
Semester: TWO	Grading Period: 2	How do you describe and sketch conic sections of	circles, parabolas, ellipses and hyperbolas?	
	Pacing: 24 days	How do you solve systems of linear –non linear	systems?	
Concept:				
Section 10-7: Solving Linea	ar-Nonlinear Systems			
Pacing 3 days				
NGSSS Standards(s)				
110355 5101100103(5)				
MA.912.A. 7.7 Solve non l	near systems and non			
linear equations algebraic	ally and graphically with			
or without technology				
07				
Common Core Standards:				
Domain : Building Function	ns			
F.BF.1b: Build a function t	hat models a relationship			
between two quantities				
F.BF.3,4a: Build new funct	ions from existing			
functions. Include simple	radical, rational, and			
exponential functions; em	phasize common effect of			
each transformation acros	s function types			
Lesson Freential Overtion				
Lesson Essential Question				
How do you colvo system	of linear and non linear			
How do you solve systems of linear and non linear				
equations algebraically and graphically?				
How do you solve systems of linear and non linear				
inequalities graphically?				
inequanties graphically:				

Vocabulary:	
 Shaded region 	
 System of quadratic inequalities 	
Posourcos:	
Resources.	
 NGSSS Practice (box) page 660 Practice Textbook pp. 665-666 Check for understanding p.665 Study Guide and Intervention workbook pages 137-138 Differentiated Instruction page 667 (Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 666 (51-54) 	
Graphic Calculator Activity page	
Activity 1:	
Search Smarttech.com websites for	
smartuoard activities to find more activities on	
construction of graphs	
(Also see resource page for other resources)	
Other Projects can be used from the Common Core	
websites:	
Common Core Standards and Activity site:	
WWW.CPALMS.ORG	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 10: Conic Sections		Unit Essential Question:	
		How do you describe a conic section as the inters	section of a plane and a cone?
Semester: TWO	Grading Period: 2	How do you describe and sketch conic sections circles, parabolas, ellipses and hyperbolas?	
	Pacing: 24 days	How do you solve systems of linear –non linear s	ystems?
Concept:			
Chapter 10 Conic Sections	;		
Study Guide and Tests			
NGSSS Standards(s)		Common Core Standards:	
MA.912.A.9.1 Write the e	quations of conic sections in standard	Domain: Expressing Geometric Properties with	
form and general form, in	order to identify the conic section and to	Equations.	
find its geometric propert	ies (foci, asymptotes, eccentricity., etc.)	•	
		G.GPE.3: Translate between the geometric	
MA.912.A.9.2 Graph conic	sections with and without using	description and the equation for a conic section	
graphing technology		Domain : Building Functions	
		F.BF.1b: Build a function that models a	
		relationship between two quantities	
		E BE 3 42: Ruild new functions from existing	
		functions Include simple radical rational and	
		exponential functions: emphasize common	
		effect of each transformation across function	
		types	
Chapter 10 Vocabulary ch	eck page 668	✓ Chapter 10 Study Guide and Review	
		pages 669-672	
		✓ Chapter 10 Practice Test page 673	
		 Preparing for Standardized Tests 674- 	
		675	
		✓ NGSSS Practice Test 676-677	

Course Pacing Guide					
Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill			
Unit Title: Chapter 11: Sequences and Series		Unit Essential Question: How do you find the sum of an infinite geometric series			
Semester:	Grading Period: 2				
Fourth Courses	Pacing: 24 days				
Concept:		Concept:	Concept:		
Section 11-1: Sequences a	and Functions	Section 11-2 Arithmetic Sequences and Series	Section 11-3 Geometric Sequence and Series		
Pacing 3 days		Pacing 3 days	Pacing 3 days		
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)		
MA.912.D.11.1 Define arithmetic and geometric sequences and series.		MA.912.D.11.3 Find specified terms of arithmetic and geometric sequences.	MA.912.D.11.3 Find specified terms of arithmetic and geometric sequences.		
MA.912.D.11.3 Find specified terms of arithmetic and geometric sequences.		MA.912.D.11.4 Find Partial sums of arithmetic and geometric series, and find sums of infinite convergent geometric series. Use sigma notation where applicable. <i>Also addresses</i> <i>MA.912.D.11.1 and MA.912.D.11.2</i>	MA.912.D.11.4 Find Partial sums of arithmetic and geometric series, and find sums of infinite convergent geometric series. Use sigma notation where applicable. <i>Also addresses MA.912.D.11.1 and MA.912.D.11.2</i>		
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s)		
Domain : Building Functio	ns	Domain : Building Functions	Domain : Building Functions		
Build a function that mode two quantities.	els a relationship between	Build a function that models a relationship between two quantities.	Build a function that models a relationship between two quantities.		
F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula use them to model situations, and translate between the two forms.		F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula use them to model situations, and translate between the two forms.	F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula use them to model situations, and translate between the two forms		
Lesson Essential Question	:	Lesson Essential Question:	Lesson Essential Question:		
How to you relate arithmetic sequences to linear		How do you use arithmetic sequences.	How do you use geometric sequences?		
functions.		How do you find sums of arithmetic series	How do you find the sums of geometric series?		

Course Pacing Guide					
Vocabu	ılary:	Vocabu	ılary:	Vocabu	ılary:
*	Sequence	*	Arithmetic means	*	Geometric means
*	Term	*	Series	*	Geometric series
*	Finite sequence	*	Arithmetic series		
*	Infinite sequence	*	Partial sum		
*	Arithmetic sequence	*	Sigma notation		
*	Common difference				
*	Geometric sequence				
*	Common ratio				

Course Pacing Guide			
Resources:	Resources:	Resources:	
 ✓ Get Ready for Chapter 11 page 685 ✓ Practice Textbook pp. 685-687 ✓ Check for understanding p.685 ✓ Study Guide and Intervention workbook pages 139-140 ✓ Differentiated Instruction page 684 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 686 (54-60) 	 Textbook ✓ NGSSS Practice (Box) page 687 ✓ Practice Textbook pp. 692-693 ✓ Check for understanding p.692 ✓ Study Guide and Intervention workbook pages 141-142 ✓ Differentiated Instruction page 693 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 694 (74-82) 	 Textbook ✓ NGSSS Practice (Box) page 695 ✓ Practice Textbook pp. 699-700 ✓ Check for understanding p.699 ✓ Study Guide and Intervention workbook pages 143-144 ✓ Differentiated Instruction page 702-Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 701 (64-72) 	
Graphic Calculator Activity page Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Media exercise Collaborate Plan Align Learn Motive Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 11: Sequences and Series		Unit Essential Question:		
		How do you find the sum of an infinite geometrie	c series?	
Semester:	Grading Period: 2	How do you write the recursive formulas for sequences?		
Fourth Courses	Pacing: 24 days	How do you use mathematical induction to prov	e statements?	
• · ·		How do you find binomial experiments?	-	
Concept:		Concept:	Concept:	
Section 11-4: Infinite Geo	metric Series	Section 11-5: Recursion and Iteration	Section 11-6: The Binomial Theorem	
Pacing 3 days		Pacing 3 days	Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.D.11.2 Use sigma notation to describe series		MA.912.D.11.1 Define arithmetic and geometric sequences and series	MA.912.A.4.12 Apply the Binomial Theorem	
MA.912.D.11.4 Find Partial sums of arithmetic and geometric series, and find sums of infinite convergent geometric series. Use sigma notation where applicable. <i>Also addresses MA.912.D.11.1 and MA.912.D.11.2</i> .				
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s)	
Domain : Building Functio	ns	Domain : Building Functions	Domain : Building Functions	
Build a function that mode two quantities.	els a relationship between	Build a function that models a relationship between two quantities.	Build a function that models a relationship between two quantities.	
F.BF.2 Write arithmetic an both recursively and with them to model situations, the two forms.	d geometric sequences an explicit formula use and translate between	F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula use them to model situations, and translate between the two forms.	F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula use them to model situations, and translate between the two forms.	

Course Pacing Guide				
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:		
How do you find sums and infinite geometric	How do you recognize and use special	How do you use Pascal's triangle to expand powers of		
series?	sequences?	binomials?		
How do you write repeating decimals as fractions?	How do you iterate functions.	How do you use the binomial theorem to expand		
		powers of binomials		
Vocabulary:	Vocabulary:	Vocabulary:		
Infinite geometric series	 Fibonacci sequence 	Pascal's triangle		
 Convergent series 	 Recursive sequence 			
 Divergent series 	 Explicit formula 			
Infinity	 Recursive formula 			
	 Iteration 			

Resources:

- ✓ Get Ready for Chapter 702
- ✓ Practice Textbook pp. 708-709
- ✓ Check for understanding p.708
- ✓ Study Guide and Intervention workbook pages 145-146
- Differentiated Instruction page 711 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 710 (60-67)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 711
- ✓ Practice Textbook pp. 717-718
- ✓ Mid-chapter Test page 713
- ✓ Check for understanding p.717
- ✓ Study Guide and Intervention workbook pages 147-148
- ✓ Differentiated Instruction page 716 (Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 718 (49-53)

Activity 1:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 719
- ✓ Practice Textbook pp. 723-725
- ✓ Check for understanding p.723
- ✓ Study Guide and Intervention workbook pages 149-150
- ✓ Differentiated Instruction page 725-Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 724 (34-38)

Activity 1:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



torm for educators to Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 11: See	quences and Series	Unit Essential Question:		
		How do you find the sum of an infinite geometri	ic series?	
Semester:	Grading Period: 2	How do you write the recursive formulas for sequences?		
Fourth Courses	Pacing: 24 days	How do you use mathematical induction to prov	e statements?	
•		How do you find binomial experiments?		
Concept:				
Section 11-7: Proof by IVIa	athematical induction			
Pacifig 3 days				
NGSSS Standards(s)				
MA.912.D.1.3 Use mather	natical induction to prove			
various concepts in number	er theory (such as sums			
of infinite integer series, d	livisibility statements, and			
parity statements), recurr	rence relations, and			
applications				
Common Core Standards:				
Domain : Building Function	ons			
Build a function that mode	els a relationship between			
two quantities.				
E DE 2 M/rite arithmetic an	d acomotrio coguencos			
hoth recursively and with	an explicit formula use			
them to model situations, and translate between				
the two forms				
Lesson Essential Question	:			
How do you find sums and	infinite geometric			
series?	J			
How do you write repeating	ng decimals as fractions?			
	<u> </u>			
---	----------	--		
Vocabulary:				
 Mathematical induction 				
Induction hypothesis				
Resources:				
 ✓ NGSSS Practice (Box) page 725 ✓ Practice Textbook pp. 729-730 ✓ Check for understanding p.729 ✓ Study Guide and Intervention workbook pages 151-152 ✓ Differentiated Instruction page 731 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 730 (33-40) 				
Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) More activity is a second of the second				
WWW.CPALMS.ORG				

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hil	
Unit Title: Chapter 11: Sequences and Series		Unit Essential Question:	
		How do you find the sum of an infinite geometric series?	
Semester:	Grading Period: 2	How do you write the recursive formulas for seq	uences?
Fourth Courses	Pacing: 24 days	How do you use mathematical induction to prov	e statements?
		How do you find binomial experiments?	
Chapter 11 Sequences and	d Series		
Study Guide and Tests			
NGSSS Standards(s)		Common Core Standard(s):	
_			
MA.912.D.11.1 Define arit	hmetic and geometric	Domain : Building Functions	
sequences and series.		Duild a function that would be malationalis	
	notation to decariba	between two guantities	
MA.912.D.11.2 USE Signa	notation to describe	between two quantities.	
361163		F BF 2 Write arithmetic and geometric	
		sequences both recursively and with an	
MA 912 D 11 3 Find specified terms of arithmetic		explicit formula use them to model situations.	
and geometric sequences.		and translate between the two forms.	
0			
MA.912.D.11.4 Find Partia	I sums of arithmetic and		
geometric series, and find	sums of infinite		
convergent geometric seri	es. Use sigma notation		
where applicable. Also add	dresses MA.912.D.11.1		
and MA.912.D.11.2			
Chapter 11 Vessbuler une		Chanter 11 Study Cuide and Daview	
Chapter 11 Vocabulary pa	ge /32	 Chapter 11 Study Guide and Review pages 732-736 	
		✓ Chanter 11 Practice Test nage 737	
		 ✓ Preparing for Standardized Tests 738. 	
		739	
		✓ NGSSS Practice Test 740-741	

Course Code: 1200330 Course Name: Algebra 2 - Glencoe McGraw-Hil			
Unit Title: Chapter 12: Pro	2: Probability and Statistics Unit Essential Question:		
		How do you use results from a survey sample to	draw conclusions about a population?
Semester:	Grading Period: 2	How do you compare sample statistics and popu	lation statistics?
Fourth Courses	Pacing: 24 days	How do you use the empirical rule to find probal	bilities?
Statistics and Probability		How do you create a graph of a binomial probab	ility distribution?
courses		How do you draw conclusions about populations	based on sample statistics
Concept:		Concept:	Concept:
Section 12-1: Experiment	s, Surveys, and	Section 12-2: Statistical Analysis	Section 12-3: Conditional Probability
Observational Studies		Pacing 3 days	Pacing 3 days
Extend 12-1: Graphing Tec	chnology Lab: Evaluating	с ,	5 ,
Published Data	0, 0		
Pacing 3 days			
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)
MA.912.S.2.1- Compare th	ne difference between	MA.912.S.3.3 Calculate and interpret	MA.912.S.2.3 Identify sources of bias, including sampling
surveys, experiments, and observational studies.		measures of the center of a set of data,	and non-sampling errors (including: understanding how
		including mean, median and weighted mean,	conditioning affects the probability events. Finding
MA.912.S.2.3 Identify sou	rces of bias. including	and use these measures to make comparisons	conditional probabilities from a two-way frequency
sampling and non-sampling errors		among sets of data.	table.)
·······························			
		MA.912.S.3.4 Calculate and interpret	
		measures of variance and standard deviation.	
		Use these measures to make comparisons	
		among sets of data.	
		1	

Course Pacing Guide			
Common Core Standards: Statistics and Probability course	Common Core Standard(s):	Common Core Standard(s)	
Domain: Interpreting Categorical and Quantitative Data S.ID 1,2,3,4: Summarize, represent and interpret data on a single count or measurement variable S.ID 5,6: Summarize, represent, and interpret data on two categorical and quantitative variables	Domain: Making Inferences and Justifying Conclusions S.IC 1,2: Understand and evaluate random processes underlying statistical experiments. SIC.3 Make inferences and justify conclusions from sample surveys, experiments and observation studies	Domain: Conditional Probability and the Rules of Probability S.CP.1,2,3,4,5,: Understand independence and conditional probability and use them to interpret data S.CP.6,7,8,9: Use the rules of probability to compute probabilities of compound events in a uniform probability model	
Domain: Making Inferences and Justifying Conclusions S.IC 1,2: Understand and evaluate random processes underlying statistical experiments. SIC.3 Make inferences and justify conclusions from sample surveys, experiments and observation studies		Domain: Using Probability to make decisions S.MD 1,2,3,4: Calculate expected values and use them to solve problems S.MD.5,6,7: Use probability to evaluate outcomes of decisions	
Lesson Essential Question: How do you evaluate surveys, studies, and experiments? How do you distinguish between correlation and causation?	Lesson Essential Question: How do you use measures of central tendency and variation to compare sets of data? How do you explore measures of variation?	Lesson Essential Question: How do you find probabilities of events given the occurrence of other events. How do you use contingency tables to find conditional probabilities?	
Vocabulary: Survey Population Census Biased Unbiased Unbiased Coservational study Experiment Treatment group Control group Correlation Causation	 Vocabulary: Variable Univariate data Measure of central tendency Parameter Statistic Margin of sampling error Measure of variation Variance Standard deviation 	 Vocabulary: Conditional probability Contingency table Relative frequency 	

Course Pacing Guide		
Resources:	Resources:	Resources:
 ✓ Get Ready for Chapter 12 page 743 ✓ Practice Textbook pp. 748-749 ✓ Check for understanding p.748 ✓ Study Guide and Intervention workbook pages 153-154 ✓ Differentiated Instruction page 750 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 749 (28-32) 	 Textbook ✓ NGSSS Practice (Box) page 750 ✓ Practice Textbook pp. 755-757 ✓ Check for understanding p.755 ✓ Study Guide and Intervention workbook pages 155-156 ✓ Differentiated Instruction page 758 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 757 (28-33) 	 Textbook ✓ NGSSS Practice (Box) page 758 ✓ Practice Textbook pp. 761-763 ✓ Check for understanding p.761 ✓ Study Guide and Intervention workbook pages 157-158 ✓ Differentiated Instruction page 763-Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 762 (23-27)
Graphic calculator real life activity Lab on Evaluating Published Data page 751 in Textbook. Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources)	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) More resource page for other resources) More Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>	Activity 1: Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) More Plan Align Learn Motivate Share Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>
WWW.CPALMS.ORG		

Course Code: 1200330	rse Code: 1200330 Course Name: Algebra 2 - Glencoe McGraw-Hill			
Unit Title: Chapter 12: Probability and Statistics		Unit Essential Question:		
		How do you use results from a survey sample to	ow do you use results from a survey sample to draw conclusions about a population?	
Semester:	Grading Period: 2	How do you compare sample statistics and popu	llation statistics?	
Fourth Courses	Pacing: 24 days	How do you use the empirical rule to find proba	bilities?	
Statistics and Probability		How do you create a graph of a binomial probab	ility distribution?	
courses		How do you draw conclusions about populations	s based on sample statistics?	
Concept:		Concept:	Concept:	
Section 12-4: Probability and Probability		Section 12-5: The Normal Distribution	Section 12-6: Hypothesis Testing	
Distributions		Pacing 3 days	Pacing 3 days	
Pacing 3 days				
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.P.1.2- Use formulas for permutations and		MA.912.P.3.1; MA.912.P.3.2	MA.912.S.5.2 Apply the general principals of hypotheses	
combinations to count outcomes and determine		Determine probabilities of events from	testing	
probabilities of events.		distributions, and determine the mean and		
		variance of distributions; (including discrete,		
		uniform, binomial, normal and exponential		
MA.912.P.3.1 Determine p	probabilities of events	MA.912.P.3.3	MA.912.S.5.3: Explain and identify the following: null	
from distributions, including: discrete: Uniform,		Apply properties of the normal distribution	hypothesis, alternative hypotheses. Type 1 error, and	
binomial, normal and expo	onential		Type II error	

Course Pacing Guide			
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s)	
Domain: Conditional Probability and the Rules of Probability S.CP.1,2,3,4,5,: Understand independence and conditional probability and use them to interpret data S.CP.6,7,8,9: Use the rules of probability to compute probabilities of compound events in a uniform probability model Domain: Using Probability to make decisions	Domain: Making Inferences and Justifying Conclusions S.IC 1,2: Understand and evaluate random processes underlying statistical experiments. SIC.3 Make inferences and justify conclusions from sample surveys, experiments and observation studies	 Domain: Making Inferences and Justifying Conclusions S.IC 1,2: Understand and evaluate random processes underlying statistical experiments. SIC.3 Make inferences and justify conclusions from sample surveys, experiments and observation studies Domain: Using Probability to make decisions S.MD 1,2,3,4: Calculate expected values and use them to 	
S.MD 1,2,3,4: Calculate expected values and use		solve problems	
them to solve problems		S.MD.5,6,7: Use probability to evaluate outcomes of	
of decisions		decisions	
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:	
How do you find probabilities by using	How do you determine whether a set of data	How do you compare sample statistics and population	
How do you create and use graphs of probability distributions?	How do you use the empirical rule to find probabilities?	How do you design experiments to test hypotheses?	
Vocabulary:	Vocabulary:	Vocabulary:	
 Probability 	 Continuous probability 	 Inferential statistics 	
 Success Failure 	 Distribution Normal distribution 	 Statistical inference Confidence interval 	
 Sample space 	 Skewed distribution 	 Hypothesis 	
 Random variable 		 Null hypothesis 	
 Probability distribution 		 Alternative hypothesis 	
 Uniform distribution 			
 Relative-frequency graph 			
 Discrete probability distribution 			
 Theoretical probability Evenented value 			
• Expected value			

Resources:

- ✓ NGSSS Practice (Box) page 763
- Practice Textbook pp. 767-768 \checkmark
- ✓ Check for understanding p. 767 ✓ Study Guide and Intervention
- workbook pages 159-160 ✓ Differentiated Instruction page 771 (Teacher Edition Activity)
- \checkmark Practice and Problem Solving (Word problems application in textbook)
- \checkmark H.O.T. Problems for Common Core page 770 (26-28)

Activity 1:



earch Smarttech.com websites for smartboard activities to find more activities on construction of graphs

(Also see resource page for other resources)



orm for educators to Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 771
- ✓ Practice Textbook pp. 776-777
- ✓ Check for understanding p.776
- ✓ Study Guide and Intervention workbook pages 161-162
- ✓ Differentiated Instruction page 778 (Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word) problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 777 (16-22)

Bell shape activity page 779



Activity 2:



Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Collaborate Plan Align Learn Motiva Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 778
- ✓ Practice Textbook pp. 782-783
- ✓ Check for understanding p.782
- Study Guide and Intervention workbook pages √ 163-164
- ✓ Differentiated Instruction page 784-Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 783 (29-33)





Activity 2:

Search Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Collaborate Plan Align Learn Motivate Share

Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG





Course Code: 1200330	urse Code: 1200330 Course Name: Algebra 2 - Glencoe McGraw-Hill		l
Unit Title: Chapter 12: Probability and Statistics		Unit Essential Question:	
		How do you use results from a survey sample to draw conclusions about a population?	
Semester:	Grading Period: 2	How do you compare sample statistics and popu	ulation statistics?
Fourth Courses	Pacing: 24 days	How do you use the empirical rule to find proba	bilities?
Statistics and Probability		How do you create a graph of a binomial probat	pility distribution?
courses		How do you draw conclusions about population	s based on sample statistics?
		How do you solve for probabilities for particular	event in finite space?
Concept: Section 12-4: Binomial Di Pacing 3 days	stributions		
NGSSS Standards(s)			
MA.912.P.3.1; MA.912.P.3.2 Determine probabilities of events from distributions, and determine the mean and variance of distributions; (including discrete, uniform, binomial, normal and exponential			
Common Core Standards: Statistics and Probability	COURSE		
Domain: Conditional Prol	bability and the Rules of		
Probability			
S.CP.1.2.3.4.5.: Understan	d independence and		
conditional probability an	d use them to interpret		
data	· · · · · · · · · · · ·		
S.CP.6,7,8,9: Use the rules	s of probability to		
compute probabilities of o	compound events in a		
uniform probability mode	I		
Domain: Using Probabilit	y to make decisions		
S.MD 1,2,3,4: Calculate ex	pected values and use		
them to solve problems			
S.MD.5,6,7: Use probabili	ty to evaluate outcomes		
of decisions			

	Course Pacing Guide			
Lesson How do experir How do distribu	Essential Question: o you find probabilities for binomial nents? o you find probabilities by using binomial utions of expansions?			
Vocabu	ilary:			
*	Probability			
*	Success			
*	Failure			
*	Binomial distribution			
*	Binomial experiment			
*	Experimental probability			

	U	
Resources:		
 ✓ NGSSS Practice (Box) page 784 ✓ Practice Textbook pp. 790-792 ✓ Check for understanding p. 790 ✓ Study Guide and Intervention workbook pages 165-166 ✓ Differentiated Instruction page 771 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 792 (42-47) 		
Activity 1: Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)		
Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:		

Course Code: 1200330 Course Name: Algebra 2 - Glencoe McGraw-Hill			
Unit Title: Chapter 12: Pro	bability and Statistics	Unit Essential Question:	
		How do you use results from a survey sample to draw conclusions about a population?	
Semester:	Grading Period: 2	How do you compare sample statistics and population statistics?	
Fourth Courses	Pacing: 24 days	How do you use the empirical rule to find probal	bilities?
Statistics and Probability		How do you create a graph of a binomial probab	ility distribution?
courses		How do you draw conclusions about populations	s based on sample statistics?
Concept:			
Section Chapter 12 Proba	bility and Statistics Study		
Guide and Tests			
Pacing 3 days			
NGSSS Standards(s)		Common Core Standards:	Common Core Standard(s):
		Statistics and Probability course	
MA.912.P.1.2- Use formul	as for permutations and	Domain: Conditional Probability and the Rules	Domain: Making Inferences and Justifying Conclusions
combinations to count out	tcomes and determine	of Probability	S.IC 1,2: Understand and evaluate random processes
probabilities of events.		S.CP.1,2,3,4,5,: Understand independence and	underlying statistical experiments.
		conditional probability and use them to	
MA.912.P.3.1 Determine p	probabilities of events	interpret data	SIC.3 Make inferences and justify conclusions from
from distributions, includi	ng: discrete: Uniform,	S.CP.6,7,8,9: Use the rules of probability to	sample surveys, experiments and observation studies
binomial, normal and expo	onential	compute probabilities of compound events in	Domain: Making Inferences and Justifying Conclusions
		a uniform probability model	S.IC 1,2: Understand and evaluate random processes
			underlying statistical experiments.
		Domain: Using Probability to make decisions	
		S.MD 1,2,3,4: Calculate expected values and	SIC.3 Make inferences and justify conclusions from
		use them to solve problems	sample surveys, experiments and observation studies
		S.MD.5,6,7: Use probability to evaluate	
		outcomes of	Domain: Using Probability to make decisions
			S.MD 1,2,3,4: Calculate expected values and use them to
			solve problems
			S.MD.5,6,7: Use probability to evaluate outcomes of
			decisions

	Course Pacing Guide			
Chapter 12 Vocabulary Check page 794		 ✓ Chapter 12 Study Guide and Review pages 795-798 ✓ Chapter 12 Practice Test page 799 ✓ Preparing for Standardized Tests 800- 801 ✓ NGSSS Practice Test 802-803 		
Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 13: Trigonometric Functions		Unit Essential Question: How do you use rules to investigate graphs of the sine and cosine functions		
Semester:	Grading Period: 2	How do you use rules to investigate and draw graphs of tangent, cotangent, secant, cosecant and		
Fourth Courses	Pacing: 24 days	functions?		
Trigonometric Functions				
Concept:		Concept:	Concept:	
Section 13-1: Trigonomet	ric Functions in Right	Section 13.2: Angles and Angle Measures	Section 13-3: Trigonometric Functions of General Angles	
Triangles		Pacing 3 days	Pacing 3 days	
Pacing 3 days				
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.T.2.1 Define and	use the trigonometric	MA.912.T.1.1 Convert between degree and	MA.912.T.2.1 Define and use the trigonometric ratio	
ratio (sine, cosine, tangent, cotangent, secant, cosecant) in terms of angles of right triangles)		radian measures	(sine, cosine, tangent, cotangent, secant, cosecant) in terms of angles of right triangles)	
MA.912.T.2.2 Solve real-world problems involving right triangles using technology when appropriate			MA.912.T.2.2 Solve real-world problems involving right triangles using technology when appropriate	

Course Pacing Guide				
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s)		
Domain: Trigonometric Functions F.TF	Domain: Trigonometric Functions F.TF	Domain: Trigonometric Functions F.TF		
F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle	F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle	F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle		
F.TF. 5,6,7 Model periodic phenomena with trigonometric functions	F.TF. 5,6,7 Model periodic phenomena with trigonometric functions	F.TF. 5,6,7 Model periodic phenomena with trigonometric functions		
F.TF. 8,9 Prove and apply trigonometric identities	F.TF. 8,9 Prove and apply trigonometric identities	F.TF. 8,9 Prove and apply trigonometric identities		
Lesson Essential Question: How do you find values of trigonometric functions to find the side lengths and angle measures of right triangles?	Lesson Essential Question: How do you draw and find angles in standard position? How do you convert between degree measures and radian measures?	Lesson Essential Question: How do you find values of trigonometric functions for general angles? How do you find values of trigonometric functions by using reference angles?		
Vocabulary: trigonometry trigonometric ratio trigonometric function sine cosine cosine tangent cosecant secant secant cotangent reciprocal functions angle of depression angle of elevation 	Vocabulary: standard position initial side terminal side co-terminal side radian central angle arc length	 Vocabulary: ◆ quadrantal angle ◆ reference angle 		

Course Pacing Guide			
Resources:	Resources:	Resources:	
 ✓ Get Ready for Chapter 13 page 805 ✓ Practice Textbook pp. 813-815 ✓ Check for understanding p. 813 ✓ Study Guide and Intervention workbook pages 167-168 ✓ Differentiated Instruction page 816 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 815 (54-57) 	 Textbook ✓ NGSSS Practice (Box) page 816 ✓ Practice Textbook pp. 820-822 ✓ Check for understanding p.820 ✓ Study Guide and Intervention workbook pages 169-170 ✓ Differentiated Instruction page 823 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 822 (48-53) 	 Textbook ✓ NGSSS Practice (Box) page 823 ✓ Practice Textbook pp. 829-830 ✓ Check for understanding p.829 ✓ Study Guide and Intervention workbook pages 171-172 ✓ Differentiated Instruction page 828-Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 830 (47-51) 	
Graphic calculator Activity Use graphic calculator to convert degree to radian measure (exact value) and radian measure to degree and to design the unit circle with exact values Activity 2: Search www.Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) Cher Projects can be used from the Common Core websites: Common Core Standards and Activity site:	Activity 1: Geometry Lab: Area of Triangles page 824 Activity 2: Construction of graphs (Also see resource page for other resources) Construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources) Activities on construction of graphs (Also see resource page for other resources)	Activity 1: Search www.Smarttech.com websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources) Construction Construc	

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 13: Trigonometric Functions		Unit Essential Question:		
		How do you use rules to investigate graphs of the sine and cosine functions?		
Semester:	Grading Period: 2	(i.e. graph functions and interpret them in terms of their amplitude, frequency, period and phase shift)		
Fourth Courses	Pacing: 24 days	How do you use rules to investigate and draw gr	aphs of tangent, cotangent, secant, cosecant and	
Trigonometric Functions		functions?		
		How do you use law of sines and cosines to solve	e triangles?	
Concept:		Concept:	Concept:	
Section 13-4: Law of Sines	5	Section 13-5: Law of Cosines	Section 13-6: Circular Functions	
Pacing 3 days		Pacing 3 days	Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA 912 T 2 3 Apply the la	ws of sines and cosines to	MA 912 T 1 8 · Solve real-world problems	MA 912 T 1 5 Make connections between right triangle	
solve real-world problems	using technology	involving applications of trigonometric	ratios trigonometric functions and circular functions	
solve real world problems	using teenhology	functions and granning technology when		
		annronriate		
MA 912 T 2 4 Use the area of triangles given two		MA.912.T.2.3 Apply the laws of sines and	MA.912.T.1.8 : Solve real-world problems involving	
sides and angle or three sides to solve real-world		cosines to solve real-world problems using	applications of trigonometric functions and graphing	
problems.		technology	technology when appropriate	
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s)	
Domaine Trigonomotric F	unctions E TE	Domain, Trigonomatric Eurotions E TE	Domain, Trigonomatric Eurotians E TE	
Domain: Ingonometric Fi		Domain: Ingonometric Functions F.IF	Domain: Trigonometric Functions F.TF	
FTF 1234 Extend the c	Iomain of trigonometric	E TE 1 2 3 4 [.] Extend the domain of	F TF 1 2 3 4. Extend the domain of trigonometric	
functions using the unit cu	rcle	trigonometric functions using the unit circle	functions using the unit circle	
E TE 5 6 7 Model periodic phenomena with		F.TF. 5.6.7 Model periodic phenomena with	F.TF. 5.6.7 Model periodic phenomena with	
trigonometric functions		trigonometric functions	trigonometric functions	
F.TF. 8.9 Prove and apply trigonometric identities		F.TF. 8.9 Prove and apply trigonometric	F.TF. 8,9 Prove and apply trigonometric identities	
		identities		

Course Pacing Guide			
Lesson Essential Question: How do you find the area of a triangle using two sides and an included angle? How do you use law of sines to solve triangles?	Lesson Essential Question: How do you use the law of cosines to solve triangles? How do you choose methods to solve triangles?	Lesson Essential Question: How do you find values of trigonometric functions based on the unit circle? How do you use the properties of periodic functions to evaluate trigonometric functions?	
Vocabulary:	Vocabulary:	Vocabulary:	
 Law of sines 	* Law of Cosines	 quadrantal angle 	
 Solving a triangle 		 reference angle 	

Resources:

- ✓ NGSSS Practice (Box) page 831
- Practice Textbook pp. 836-838
- ✓ Check for understanding p.836
 ✓ Study Guide and Intervention
- workbook pages 173-174
- Differentiated Instruction page 839 (Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 838 (43-48)

Activity 1:



Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on

construction of graphs

(Also see resource page for other resources)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site:

WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 839
- ✓ Practice Textbook pp. 843-845
- ✓ Mid-chapter Test page 847
- ✓ Check for understanding p.843
- ✓ Study Guide and Intervention workbook pages 175-176
- Differentiated Instruction page 843(Teacher Edition Activity)
- Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 845 (34-37)

Activity 1:



Search <u>www.Smarttech.com</u>

websites

for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)



Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

Resources:

Textbook

- ✓ NGSSS Practice (Box) page 846
- ✓ Practice Textbook pp. 851-853
- ✓ Check for understanding p.851
- ✓ Study Guide and Intervention workbook pages 177-178
- ✓ Differentiated Instruction page 850-Teacher Edition Activity)
- ✓ Practice and Problem Solving (Word problems application in textbook)
- ✓ H.O.T. Problems for Common Core page 853 (37-41)

Activity 1:



Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on

construction of graphs

(Also see resource page for other resources)



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Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill		
Unit Title: Chapter 13 Trigonometric Functions		Unit Essential Question:		
		How do you use rules to investigate graphs of th	e sine and cosine functions?	
Semester:	Grading Period: 2	(i.e. graph functions and interpret them in terms of their amplitude, frequency, period and phase shift)		
Fourth Courses	Pacing: 24 days	How do you use rules to investigate and draw graphs of tangent, cotangent, secant, cosecant and		
Trigonometric Functions		functions?		
	L	How do you use law of sines and cosines to solve	e triangles?	
Concept:		Concept:	Concept:	
Section 13-7: Graphing Tr	igonometric Functions	Section 13-8: Translations of Trigonometric	Section 13-9: Inverse Trigonometric Functions	
Pacing 3 days		Graphs	Pacing 3 days	
		Pacing 3 days		
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)	
MA.912.T.1.5 Make conne	ections between right	MA.912.T.1.6 Define and graph trigonometric	MA.912.T.1.7 Define and graph inverse trigonometric	
triangle ratios, trigonomet	tric functions, and circular	functions using domain, range intercepts,	relations and functions.	
functions		period, amplitude, phase shift, vertical shift,		
		and asymptotes with and without the use of		
		graphing technology		
MA.912.T.1.6 Define and graph trigonometric		MA.912.T.1.8 : Solve real-world problems	MA.912.T.1.8 : Solve real-world problems involving	
functions using domain, range intercepts, period,		involving applications of trigonometric	applications of trigonometric functions and graphing	
amplitude, phase shift, vertical shift, and		functions and graphing technology when	technology when appropriate	
asymptotes with and without the use of graphing		appropriate		
technology				

	Course Pacing Guide	
Common Core Standards:	Common Core Standard(s):	Common Core Standard(s)
Domain: Trigonometric Functions F.TF	Domain: Trigonometric Functions F.TF	Domain: Trigonometric Functions F.TF
F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle	F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle	F.TF. 1,2,3,4: Extend the domain of trigonometric functions using the unit circle
F.TF. 5,6,7 Model periodic phenomena with trigonometric functions	F.TF. 5,6,7 Model periodic phenomena with trigonometric functions	F.TF. 5,6,7 Model periodic phenomena with trigonometric functions
F.TF. 8,9 Prove and apply trigonometric identities	F.TF. 8,9 Prove and apply trigonometric identities	F.TF. 8,9 Prove and apply trigonometric identities
Domain: Similarity, Right Triangles and Trigonometry G-SRT	Domain: Similarity, Right Triangles and Trigonometry G-SRT	Domain: Similarity, Right Triangles and Trigonometry G-SRT
G.SRT.6,7,8: Define trigonometric ratios and solve problems involving right triangles	G.SRT.6,7,8: Define trigonometric ratios and solve problems involving right triangles	G.SRT.6,7,8: Define trigonometric ratios and solve problems involving right triangles
G.SRT.9.10.11 Apply trigonometry to general triangles	G.SRT.9.10.11 Apply trigonometry to general triangles	G.SRT.9.10.11 Apply trigonometry to general triangles apply trigonometric identities
Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:
How to describe and graph the sine, cosine, and tangent functions?	trigonometric graph vertical translations of	functions.? How do you solve equations by using inverse
trigonometric functions?	trigonometric graphs?	trigonometric functions?
Vocabulary:	Vocabulary:	Vocabulary:
 Amplitude 	 Phase shift 	 Principal values
 frequency 	 Vertical shift 	 Arcsine function
	✤ Midline	 Arc cosine function Antenneut function
		 Arctangent function

Course Pacing Guide Resources: Resources: Resources: ✓ NGSSS Practice (Box) page 861 Textbook Textbook ✓ NGSSS Practice (Box) page 861 ✓ NGSSS Practice (Box) page 870 \checkmark Practice Textbook pp. 859-861 ✓ Check for understanding p.859 ✓ Practice Textbook pp. 867-869 ✓ Practice Textbook pp. 874-876 ✓ Study Guide and Intervention ✓ Check for understanding p.867 ✓ Check for understanding p.874 ✓ Study Guide and Intervention ✓ Study Guide and Intervention workbook pages workbook pages workbook pages 181-182 ✓ Differentiated Instruction page 183-184 839 (Teacher Edition Activity) ✓ Differentiated Instruction page 864 ✓ Differentiated Instruction page 873-Teacher Practice and Problem Solving (Teacher Edition Activity) Edition Activity) ✓ Practice and Problem Solving (Word problems (Word problems application in ✓ Practice and Problem Solving (Word) problems application in textbook) application in textbook) textbook) \checkmark H.O.T. Problems for Common Core ✓ H.O.T. Problems for Common Core ✓ H.O.T. Problems for Common Core page 875 (41page 860 (41-44) page 869 (60-64) 46) **Graphic calculator Activity Graphic calculator Activity** Use graphic calculator graph trigonometric Use graphic calculator graph trigonometric functions functions Activity 1: Activity 1: Activity 1: Search <u>www.Smarttech.com</u> websites Search <u>www.Smarttech.com</u> Search www.Smarttech.com websites for smartboard activities to find more activities on websites for smartboard activities to find more activities on for smartboard activities to find more construction of graphs construction of graphs (Also see resource page for other resources) activities on construction of graphs (Also see resource page for other resources) (Also see resource page for other resources)



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Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG



Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG





Other Projects can be used from the Common Core websites:

Common Core Standards and Activity site: <u>WWW.CPALMS.ORG</u>

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 13 Trigonometric Functions		Unit Essential Question:	
1		How do you use rules to investigate graphs of the sine and cosine fu	nctions
Semester:	Grading Period: 2	(i.e. graph functions and interpret them in terms of their amplitude,	frequency,
Fourth Courses	Pacing: 24 days	period and phase shift)	
Trigonometric Functions		How do you use rules to investigate and draw graphs of tangent, cot	angent,
		secant, cosecant and functions?	
		How do you use law of sines and cosines to solve triangles?	
Chapter 13 Study Guide ar	nd Tests		
NGSSS Standards(s)		Common Core Standard(s):	
MA.912.T.1.5 Make conne	ctions between right triangle ratios, trigonometric	Domain: Trigonometric Functions F.TF	
functions, and circular fun	ctions		
		F.TF. 1,2,3,4: Extend the domain of trigonometric functions using	
MA.912.T.1.6 Define and g	graph trigonometric functions using domain, range	the unit circle	
intercepts, period, amplitu	ide, phase shift, vertical shift, and asymptotes with		
and without the use of graphing technology		F.TF. 5,6,7 Model periodic phenomena with trigonometric	
		functions	
MA.912.1.1.7 Define and	graph inverse trigonometric relations and functions.	ETE 0.0 Draws and apply trigger anothing identities	
MA 012 T 1 9 . Colve real .	world problems involving applications of	F. IF. 8,9 Prove and apply trigonometric identities	
trigonomotric functions on	world problems involving applications of	Domain, Similarity, Dight Triangles and Trigonometry C SPT	
ingonometric functions ar	id graphing technology when appropriate	Domain: Similarity, Right Thangles and Thgonometry G-SRT	
MA 912 T 2 3 Apply the lay	ws of sines and cosines to solve real-world problems	G SRT 6.7.8: Define trigonometric ratios and solve problems	
using technology		involving right triangles	
danig teennology			
MA.912.T.2.4 Use the area	of triangles given two sides and angle or three sides	G.SRT.9.10.11 Apply trigonometry to general triangles	
to solve real-world problem	ms.		

		Course Pacing Guide	
Chapter 13 Vocabulary page 877		 ✓ Chapter 13 S ✓ Chapter 13 F ✓ Preparing fo ✓ NGSSS Pract 	itudy Guide and Review pages 878-882 Practice Test page 883 r Standardized Tests 884-885 ice Test 886-887
Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hil	
Unit Title: Chapter 14 Tri	igonometric Identities	Unit Essential Question:	
and Equations		How do you use trigonometry to solve real-worl	d problems?
Semester:	Grading Period: 2		
Fourth Courses	Pacing: 24 days		
Trigonometric Functions			
Concept:		Concept:	Concept:
Section 14.1: Trigonomet	ric identities	Section 14-2: Verifying Trigonometric	Section 14-3: Sum and Difference of Angles identities
Pacing 3 days		Identities	Pacing 3 days
		Pacing 3 days	
NGSSS Standards(s)		NGSSS Standards(s)	NGSSS Standards(s)
MA.912.T.3.1 Verify the ba	asic Pythagorean	MA.912.T.3.2-Use basic trigonometric	MA.912.T.3.2-Use basic trigonometric identities to verify
identities e.g. $\sin^2 x + \cos^2 x$	x = 1, and show they are	identities to verify other identities and simplify	other identities and simplify expressions
equivalent to the Pythago	rean meorem.	expressions	
			IVIA.912.1.3.3- Use the sum and difference, half-angle
			and double-angle formulas for sine, cosine, and tangent
			when formulas are provided
Common Core Standards:		Common Core Standard(s):	Common Core Standard(s)
Domain: Trigonometric Functions F.TF		Domain: Trigonometric Functions F.TF	Domain: Trigonometric Functions F.TF
F.TF. 8,9 Prove and apply trigonometric identities		F.TF. 8,9 Prove and apply trigonometric identities	F.TF. 8,9 Prove and apply trigonometric identities

Lesson Essential Question:	Lesson Essential Question:	Lesson Essential Question:
How do you use trigometric identities to find	How do you verify trigonometric identities by	How do you find values of sine and cosine by using sum
trigonometric values? How do you use	transforming one side of an equation into the	and difference identities?
trigonometric identities to simplify expressions?	form of the other side?	How do you verify trigonometric identities by using sum
	How do you verify trigonometric identities by	and difference identities?
	transforming each side of the equation to the	
	same form?	
Vocabulary:	Vocabulary:	Vocabulary:
 Trigonometric identities 	Verify identities by transforming one	 Sum identities (key concept box)
	side (Key concept box)	 Difference identities (key concept box)

Course Pacing Guide			
Resources:	Resources:	Resources:	
 ✓ Getting Ready for Chapter 14 page 889 ✓ Practice Textbook pp. 894-896 ✓ Check for understanding p.894 ✓ Study Guide and Intervention workbook pages 185-186 ✓ Differentiated Instruction page 897 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 896 (42-50) 	 Textbook ✓ NGSSS Practice (Box) page 897 ✓ Practice Textbook pp. 900-902 ✓ Check for understanding p.900 ✓ Study Guide and Intervention workbook pages 187-188 ✓ Differentiated Instruction page 903 (Teacher Edition Activity) ✓ Practice and Problem Solving (Word problems application in textbook) ✓ H.O.T. Problems for Common Core page 902 (52-59) 	 Textbook NGSSS Practice (Box) page 903 Practice Textbook pp. 906-908 Check for understanding p.906 Study Guide and Intervention workbook pages 189-190 Differentiated Instruction page 909-Teacher Edition Activity) Practice and Problem Solving (Word problems application in textbook) H.O.T. Problems for Common Core page 908-(38-42) 	
functions			
Activity 1: Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)	Activity 1: Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)	Activity 1: Search <u>www.Smarttech.com</u> websites for smartboard activities to find more activities on construction of graphs (Also see resource page for other resources)	

Other Projects can be used from the Common Core websites: Common Core Standards and Activity site: WWW.CPALMS.ORG

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Other Projects can be used from the Common Core

WWW.CPALMS.ORG

Common Core Standards and Activity site:

websites:

Course Code: 1200330		Course Name: Algebra 2 - Glencoe McGraw-Hill	
Unit Title: Chapter 14 Trigonometric Identities		Unit Essential Question:	
and Equations		How do you use trigonometry to solve real-work	d problems?
Semester:	Grading Period: 2		
Fourth Courses	Pacing: 24 days		
Trigonometric Functions			
Concept:		Concept:	
Section 14.4 Double-Angle	e and Half-Angle	Section 14-5: Solving Trigonometric Equations	
Identities		Pacing 3 days	
Pacing 3 days			
NGSSS Standards(s)		NGSSS Standards(s)	
MA.912.T.3.2-Use basic tri	igonometric identities to	MA.912.T.3.4- Solve trigonometric equations	
verify other identities and	simplify expressions	and real-world problems involving applications	
		of trigonometric equations using technology	
MA.912.T.3.3- Use the sun	n and difference, half-	when appropriate.	
angle and double-angle to	rmulas for sine, cosine,		
and tangent when formulas are provided			
Common Core Standards:		Common Core Standard(s):	
common core standards.			
Domain: Trigonometric Fu	unctions F.TF	Domain: Trigonometric Functions F.TF	
F.TF. 8.9 Prove and apply	trigonometric identities	F.TF. 8.9 Prove and apply trigonometric	
	0	identities	
Lesson Essential Question:		Lesson Essential Question:	
How do you find values of sine and cosine by using		How do you solve trigonometric equations?	
double-angle identities?		How to you find extraneous solutions from	
How do you find values of sine and cosine using		trigonometric functions?	
half-angle identities?			
Vocabulary:		Vocabulary:	*
 Double-angle identities (key concept box) 		 Trigonometric equations 	
 Half-angle identitie 	es (key concept box)		