DALE COUNTY HIGH SCHOOL
LESSON PLANS

Teacher: Kash Deaton Course: Algebra II

Jan 4-5

Thursday: **COS:** To acquaint students with rules, procedures, and requirements for the new school year.

Daily Objective: Students will be introduced to the rules, procedures, and requirements for the new school year.

BELL RINGER: [Jot Notes]

· Contact Information Notecards. Students will list their class schedule, their parents' contact information, and their plans for after high school on a notecard provided.

BEFORE/ENGAGE: [Think-Pair-Share]

· "Find Someone Who…." Students will walk around the room to find someone who has done the certain thing on the paper that the teacher has given to them.

DURING/EXPLAIN: [Question and Answer]

· *Teacher will review policies and procedures for the classroom and expectations for the school. (Syllabus, Handbook, Class Rules)
*Students will find their clock buddies for the year.

AFTER/EVALUATE: [Exit Slip]

*3-2-1: Students will list the following:
3 things they learned in class today
2 questions they have for me
1 fun fact about themselves

Friday:Students will be able to graph and order real numbers and to identify properties of real numbers.

Daily Objective	**COS:** N.RN.3- Explain why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. Students will be able to graph and order real numbers and to identify properties of real numbers.
Before	[Solve It!] *Students will identify and describe patterns in three different problems.
During	[I do, We do, You do] * Students will take notes on Properties of Real Numbers.

After	[Exit Slip] *Students will answer three questions from the day's lesson.

January 8-12

Monday: Students will be able to identify and describe patterns.

Daily Objective	**COS:** A.SS.E.3- Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. Students will be able to identify and describe patterns.
Before	[Minute Math] *Students will race to see who can formulate correct definitions of "variable, numerical expression, and algebraic expression".
During	[Jot Notes] *Students will take notes on Patterns and Expressions.
After	[Exit Slip] *Students will answer three problems related to the day's lesson.

Tuesday:Students will be able to graph and order real numbers and to identify properties of real numbers.

Daily Objective	**COS:** N.RN.3- Explain why sums and products of rational numbers are rational, that the sum of a rational number and an irrational number is irrational, and that the product of a nonzero rational number and an irrational number is irrational. Students will be able to graph and order real numbers and to identify properties of real numbers.
Before	[Solve It!] *Students will identify and describe patterns in three different problems.
During	[I do, We do, You do] * Students will take notes on Properties of Real Numbers.
After	[Exit Slip] *Students will answer three questions from the day's lesson.

Wednesday:Students will be able to evaluate algebraic expressions and simplify algebraic expressions.

Daily Objective	**COS:** A.SS.E.1.a Interpret parts of an expression, such as terms, factors, and coefficients Students will be able to evaluate algebraic expressions and simplify algebraic expressions.
Before	[Graphic Organizer] · Students will complete a "Words Into Math" activity by identifying words that can used in place of the four basic operations.
During	[Jot Notes] *Students will take notes on algebraic expressions.
After	[Exit Slip] *Students will answer three questions from the day's lesson.

Thursday: **Students will be able to solve equations and to solve problems by writing equations.**

Daily Objective	**COS: A.CED.1, A.CED.4- Create equations and inequalities in one variable and use them to solve problems. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.** **Students will be able to solve equations and to solve problems by writing equations.**
Before	[Q&A] Check and go over homework from previous day. Answer any questions regarding the lesson
During	[I do, We do, You do] *Students will take notes on solving equations by watching the teacher work examples, working examples with teacher, and then working problems independently.
After	[Exit Slip] *Students will answer three questions from the day's lesson.

Friday: **Students will be able to solve and graph inequalities and to write and solve compound inequalities.**

Daily Objective	**COS: A.CED.1 Create equations and inequalities in one variable and use them to solve problems.**

	Students will be able to solve and graph inequalities and to write and solve compound inequalities.
Before	[Thinking Back] *Students will recall inequalities and their use in real life.
During	[Jot Notes] *Students will take notes on Solving Inequalities.
After	[Quick Write] *Students will write a definition in their own words of inequality.

Jan 15-19

Monday: **COS A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**
Daily Objective: Students will solve absolute value equations and identify extraneous solutions.

BELL RINGER: [Math-pictionary]
Students will split into 2 teams and will race to see which team leader can get the rest of the team to say the math term by drawing pictures.

BEFORE/ENGAGE: [Warm-Up]
Students will complete the warm-up questions in their notes on their own.

DURING/EXPLAIN: [Jot Notes]
Students will solve absolute value equations and identify extraneous solutions.

AFTER/EVALUATE: [Solving Equations Fly-swatter Bingo]
Students will solve equations by swatting flies on the smartboard and finding the answer on their bingo cards.

Tuesday: **N.RN.3 Explain why sums and products of rational numbers are rational, that the sum of a rational and irrational number is irrational, and the product of a nonzero rational number and an irrational number is irrational. A.SSE.1.b Interpret complicated expressions by viewing one or more of their parts as a single entity. A.CED.1 Create equations and inequalities in one variable and use them to solve problems. A.CED.4 Rearrange formulas to highlights a quantity of interest, using the same reasoning as solving equations.**

Daily Objective: Students will take a quiz on properties of real numbers, simplifying expressions and solving equations.

BELL RINGER: [Taboo]

Students will split into teams of 4 and the leader will try to guess what the math term is based on their teams descriptions.

BEFORE/ENGAGE: [Q&A]

Students will ask any questions they may have on properties of real numbers, simplifying expressions and solving equations.

DURING/EXPLAIN: [Quiz]

Students will take a quiz on properties of real numbers, simplifying expressions and solving equations.

AFTER/EVALUATE: [Read]

Students will read while others finish their quiz.

Wednesday: **COS: A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

Daily Objective: Students will solve and graph inequalities.

BELL RINGER: [Witzzle]

Students will play Wittzle to start off the day.

BEFORE/ENGAGE: [Steps for Solving]

Students will review steps for solving inequalities.

DURING/EXPLAIN: [Jot Notes]

Students will solve and graph inequalities.

AFTER/EVALUATE: [Math 360]

Students will solve and graph inequalities on boards around the room.

Thursday: **COS: A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

Daily Objective: Students will solve and graph compound inequalities.

BELL RINGER: [Train Game]

Students will play the train game to start the day off.

BEFORE/ENGAGE: [Warm-Up]

Students will complete the warm-up questions in their notes on their own.

DURING/EXPLAIN: [Jot Notes]

Students will solve and graph compound inequalities.

AFTER/EVALUATE: [Math Lib]
Students will solve and graph compound inequalities that have been posted around the room and find the answer to complete the correct math lib on their papers.

Friday: **COS: A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

Daily Objective: Students will solve and graph absolute value inequalities.

BELL RINGER: [ACT Prep]
Students will practice ACT questions.

BEFORE/ENGAGE: [Steps to Solve]
Students will list the steps to solve absolute value inequalities.

DURING/EXPLAIN: [Jot Notes]
Students will solve and graph absolute value inequalities.

AFTER/EVALUATE: [Math 360]
Students will work their own task cards on the board. Once they get the correct answer, they will get another task card.

Janurary 22-26

Monday: **COS:** A.CED.2

DAILY OBJECTIVE: Students will be able to interpret and write direct variation equations.

BELLRINGER: [Solve It!]
Students will solve equations with fractions.

BEFORE/ENGAGE: [Minute Math]
Students will solve as many expressions dealing with fractions as they can in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on direct variation equations. (2-2)

AFTER/EVALUATE: [3-2-1]
Students will list 3 things they have learned in chapter two, 2 things they are struggling with, and 1 thing they are looking forward to this year.

Tuesday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will review Polynomials and Polynomial Functions

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Carousel Of Problems]
Students will walk around the room with their 12:00 Clock Buddy and complete review problems from Chapter 5.

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

Wednesday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will review Polynomials and Polynomial Functions

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Assessment]
Students will take Chapter 5 Test

AFTER/EVALUATE: [Read]
Students will read their library books until everyone has completed the test.

Thursday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it.**

DAILY OBJECTIVE: Students will be able to find nth roots and to multiply and divide radical expressions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Quick Write]
Students will write one paragraph on what they know about exponents.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Roots and Radical Expressions and Multiplying and Dividing Radical Expressions. (6-1 & 6-2)

AFTER/EVALUATE: [Lesson Check]

Students will answer questions from the lesson.

Friday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it.**

DAILY OBJECTIVE: Students will be able to find nth roots and to multiply and divide radical expressions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Quick Write]
Students will write one paragraph on what they know about exponents.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Roots and Radical Expressions and Multiplying and Dividing Radical Expressions. (6-1 & 6-2)

AFTER/EVALUATE: [Lesson Check]
Students will answer questions from the lesson.

January 29- Feb 2

Monday: **COS:** CC A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. CC A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. CC A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. CC A.REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions CC A.REI.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

DAILY OBJECTIVE: Students will be able to solve linear systems algebraically and to solve systems of linear inequalities.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Problem Race]
Students will race to see who can solve the most review problems from Chapter 2. The student who gets the most problems correct in one minute will receive a prize.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on solving systems of equations and inequalities. (3-2 and 3-3)

AFTER/EVALUATE: [Exit Slip]
Students will answer problems from the lesson

Tuesday: **COS:** CC A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. CC A.REI.8 (+) Represent a system of linear equations as a single matrix equation in a vector variable.

DAILY OBJECTIVE: Students will be able to solve systems in three variables using elimination and to solve systems in three variables using substitution. Students will also be able to represent a system of linear equations with a matrix and to solve a system of linear equations using matrices

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will take notes on solving systems with three variables (3-5)

AFTER/EVALUATE: **[Q & A]**
Students will ask any questions they may have from Chapter 3.

Wednesday: C**OS:** CC A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. CC A.REI.8 (+) Represent a system of linear equations as a single matrix equation in a vector variable.

DAILY OBJECTIVE: Students will be able to solve systems in three variables using elimination and to solve systems in three variables using substitution. Students will also be able to represent a system of linear equations with a matrix and to solve a system of linear equations using matrices

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will take notes on solving systems using matrices. (3-6)

AFTER/EVALUATE: **[Q & A]**
Students will ask any questions they may have from Chapter 3.

Thursday: **COS:** CC A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. CC A.REI.8 (+) Represent a system of linear equations as a single matrix equation in a vector variable.

DAILY OBJECTIVE: Students will be able to solve systems in three variables using elimination and to solve systems in three variables using substitution. Students will also be able to represent a system of linear equations with a matrix and to solve a system of linear equations using matrices

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on solving systems with three variables (3-5)

AFTER/EVALUATE: [Q & A]
Students will ask any questions they may have from Chapter 3.

Friday: **COS:** CC A.REI.6 Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables. CC A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. CC A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. CC A.REI.5 Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions CC A.REI.12 Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

DAILY OBJECTIVE: Students will be able to solve linear systems algebraically and to solve systems of linear inequalities.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Problem Race]
Students will race to see who can solve the most review problems from Chapter 2. The student who gets the most problems correct in one minute will receive a prize.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on solving systems of equations and inequalities. (3-2 and 3-3)

AFTER/EVALUATE: [Exit Slip]
Students will answer problems from the lesson

Feb 5-9

Monday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will complete ACT Projects

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]

Students work together to finsih their projects
*Cell phones may be used for this but only for project purposes

DURING/EXPLAIN: [Presentations]
Students present their ACT formulas and calculator tricks

AFTER/EVALUATE: [Study]
Students will prepare for tomorrow's glow games by reviewing their ACT materials

Tuesday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.**
F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms…

DAILY OBJECTIVE: Students will be evaluated on radical functions and rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Prep]
Students will complete ACT practice questions.

DURING/EXPLAIN: [Assessment]
Students will be evaluated on radical functions and rational exponents.

AFTER/EVALUATE: [Read]
Students will read their library books after they finish the test.

Wednesday: **COS:** G.SRT.6 Understand that by similarity, side ratios in right triangles… lead to definitions of trigonometric ratios for acute angles.

DAILY OBJECTIVE: Students will be able to solve similar right triangles using trigonometry.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Trigonometry (T-3)

AFTER/EVALUATE: [Exit Slip]
Students will complete an Exit Slip on the lesson.

Thursday:**COS:** G.SRT.6 Understand that by similarity, side ratios in right triangles… lead to definitions of trigonometric ratios for acute angles.

DAILY OBJECTIVE: Students will practice ACT Questions with Glow Games.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Formulas]
Students will review formulas needed to solve ACT questions

DURING/EXPLAIN: [Glow Games]
.Students will play ACT Glow Games

AFTER/EVALUATE: [ACT Must Know]
Students will review the must know facts for the ACT

HOMEWORK: None

Friday:**COS:** G.SRT.6 Understand that by similarity, side ratios in right triangles… lead to definitions of trigonometric ratios for acute angles.

DAILY OBJECTIVE: Students will be review trigonometry.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Review]
Students will review T-1- T-3.

AFTER/EVALUATE: [Q & A]
Students will ask any questions they may about Trig.

Feb 12-16

Monday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of equations using elimination and application.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]

Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of solutions by elimination and application.

AFTER/EVALUATE: [Study Guide]
Students will receive a study guide that needs to be completed by Thursday for the Unit 2 test on equations and inequalities.

Tuesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of equations with 3 variables.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]
Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of solutions by graphing and elimination.

AFTER/EVALUATE: [Math Lib]
Students will solve systems with three variables by completing the math lib that has been posted around the room.

Wednesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of inequalities.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Supplies]
Students will get 2 different colors to graph and shade systems of inequalities.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of inequalities by shading.

AFTER/EVALUATE: [Coloring Activity]
Students will solve systems of equations with 3 variables and turn in for 10 bonus points.

Thursday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will study for the Unit 2 Test on equations and inequalities.

BELL RINGER: [ACT Elements]

Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]

Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Study Guide]

Students will complete the study guide they received on Monday with partners.

AFTER/EVALUATE: [Q&A]

Students will ask any questions they may have on the Unit 2 Test.

Friday:**COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will take the Unit 2 Test on equations and inequalities.

BELL RINGER: [ACT Elements]

Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Assessment]

Students will have the entire class time to take the Unit 2 Test.

DURING/EXPLAIN: [Assessment]

Students will have the entire class time to take the Unit 2 Test.

AFTER/EVALUATE: [Assessment]

Students will have the entire class time to take the Unit 2 Test.

Feb 19-23

Monday: **COS: Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]**

Daily Objective: Students will take the Unit 2 Test on equations and inequalities.

BELL RINGER: [ACT Elements]

Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Assessment]

Students will have the entire class time to take the Unit 2 Test.

DURING/EXPLAIN: [Assessment]

Students will have the entire class time to take the Unit 2 Test.

AFTER/EVALUATE: [Assessment]
Students will have the entire class time to take the Unit 2 Test.

Tuesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will evaluate and graph piecewise and greatest integer functions.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Math Taboo]
Students will play taboo with math vocabulary.

DURING/EXPLAIN: [Jot Notes]
Students will evaluate and graph piecewise and greatest integer functions.

AFTER/EVALUATE: [Piecewise Functions Puzzle]
Students will graph and list the domain and range of piecewise functions, then cut and paste them so the edges match.

Wednesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will graph absolute value equations and inequalities by tables.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Absolute Value]
Students will get 2 different colors to graph and shade systems of inequalities.

DURING/EXPLAIN: [Jot Notes]
Students will graph absolute value equations and inequalities by tables.

AFTER/EVALUATE: [Absolute Value Cut, Paste, and Match]
Students will match the graph of absolute value to their correct equations and inequalities.

Thursday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will graph absolute value equations and inequalities by tables.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Parent Functions and Characteristics]

Students will learn about parent functions graphs and the characteristics of those graphs by completing examples.

DURING/EXPLAIN: [Transformations of Parent Graphs]
Students will describe how a certain equation changes the picture of the graph.

AFTER/EVALUATE: [Exit Slip]
Students will graph a transformation of a parent graph and describe the transformation and turn in.

Friday:**COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will take the Unit 2 Test on equations and inequalities.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Divide and Conquer]
Students will work with a partner to complete the absolute value stations book.

DURING/EXPLAIN: [Absolute Value Stations Book]
Students will rotate around the room to complete the absolute value stations book by answering problems around the room with a partner.

AFTER/EVALUATE: [Q&A]
Students will ask any questions they have on the absolute value stations book.

Feb 26-March 1

Monday: **COS:** F.BF.3

DAILY OBJECTIVE: Students will be able to graph absolute value functions. Students will multiply polynomial functions

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Brainstorm]
Students will jot down where they believe they can use linear equations in real life.

DURING/EXPLAIN: [I do, We do, You do]
Students will engage in working examples independently and dependently on absolute value functions and graphs. (2-7)

AFTER/EVALUATE: [Exit Slip]
Students will work problems from the lesson and turn them in as their ticket to get out the door.

Tuesday: **COS:** F.BF.3

DAILY OBJECTIVE: Students will be able to analyze transformations of functions. Students will be able to factor and foil polynomial functions.

BELLRINGER: **[Solve It!]**
Students will solve ACT questions

BEFORE/ENGAGE: **[Algebra Tiles]**
Students will use algebra tiles to make sense of multiplying polynomials

DURING/EXPLAIN: **[Math Lib]**
Students will walk around the classroom and evaluate expressions

AFTER/EVALUATE: **[Pyramid Puzzle]**
Students will multiply polynomial expressions and complete the puzzle.

Wednesday: **COS:** F.BF.3

DAILY OBJECTIVE: Students will be able to graph absolute value functions.

BELLRINGER: **[Solve It!]**
Students will solve equations with fractions.

BEFORE/ENGAGE: **[Brainstorm]**
Students will jot down where they believe they can use linear equations in real life.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will engage in working examples independently and dependently on absolute value functions and graphs. (2-7)

AFTER/EVALUATE: **[Clock Buddies]**
Students will work problems with a clock buddy.

Thursday: **COS:** A.CED.2

DAILY OBJECTIVE: Students will be able to graph two variable inequalities.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can answer the most Order of Operations problems in one minute.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will work dependently and independently on graphing two variable inequalities. (2-8)

AFTER/EVALUATE: **[White Boards]**
Students will work problems from the lesson on whiteboards.

Friday: **COS**: A.CED.2, F.BF.3, F.IF.1

DAILY OBJECTIVE: Students will review functions, equations, and graphs.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can answer the most Order of Operations problems in one minute

DURING/EXPLAIN: [Review]
.Students will work problems from Chapter 2 to review.

AFTER/EVALUATE: [Q & A]
Students will ask questions about functions, equations, and graphs.

March 4-8

Monday: **COS:** A.SSE.2 Use the structure of an expression to identify ways to rewrite it.

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic cases.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Factoring Puzzles]
Students will solve factoring puzzles using white boards.

DURING/EXPLAIN: [Algebra Tiles]
Students will factor quadratic equations using algebra tiles

AFTER/EVALUATE: [ACT- Quadratics]
Students will work quadratic problems from the ACT

Tuesday: **COS:** A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

DAILY OBJECTIVE: Students will be able to graph quadratic functions written in standard form.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Assessment]

Students will take an assessment on quadratic basics

AFTER/EVALUATE: **[Read]**
Students will read after assessment.

Wednesday: **COS:** A.SSE.2 Use the structure of an expression to identify ways to rewrite it.

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic cases.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: **[Jot Notes]**
Students will take notes on Factoring Quadratic Expressions (4-4)

AFTER/EVALUATE: **[Exit Slip]**
Students will answer questions from the lesson.

Thursday: **COS: F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.**

DAILY OBJECTIVE: Students will be able to model data with quadratic functions.

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Quadrant Cards]**
Students will define terms, give words with the same meaning, and give examples of those terms.

DURING/EXPLAIN: **[I do, We do, Y'all do]**
Students will watch examples being worked, work examples with the class, and work examples on their own.

AFTER/EVALUATE: **[Lesson Check with Plickers]**
Students will use their Plickers Cards to answer questions from the lesson.

Friday: **COS: A.SSE.2 Use the structure of an expression to identify ways to re-write it.**

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic expressions.

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Review and Quiz]**
Students will take a quiz on quadratic functions.

DURING/EXPLAIN: **[Jot Notes]**
Students will take notes on factoring quadratic expressions.

AFTER/EVALUATE: **[Exit Slip]**
Students will be complete an ACT Prep question and turn it in as their ticket out of class.

March 11-15

Monday: **COS: F.IF.7.c Graph polynomial functions, identifying zeros when suitable factorizations are available and showing end behavior.**

DAILY OBJECTIVE: Students will be able to analyze the factored form of a polynomial and to write a polynomial function from its zeros.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will take notes on Polynomials, Linear Factors, and Zeros. (5-2)

AFTER/EVALUATE: **[Chapter Check]**
Students will answer questions out loud from Chapter 5

Tuesday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)**

DAILY OBJECTIVE: Students will be able to solve polynomial equations by factoring and graphing.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[GIST]**
Students will write one paragraph about what they have learned about polynomials so far.

DURING/EXPLAIN: **[Jot Notes]**
Students will take notes on Solving Polynomial Equations and Dividing Polynomials (5-3 and 5-4)

AFTER/EVALUATE: **[Exit Slip]**
Students will answer questions from the lesson.

Wednesday: **COS: F.IF.7.b Graph polynomial functions, identifying zeros when suitable factorizations are available and showing end behavior.**

DAILY OBJECTIVE: Students will be able to classify and graph polynomials.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Connect Four]
Students will get in groups and play "Connect 4- classifying polynomials style"

DURING/EXPLAIN: [5.1-5.4 QUIZ]
Students will take a mid-chapter quiz

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the lesson.

Thursday: C**OS: N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will be able to solve equations using the Rational Root Theorem and the Conjugate Root Theorem. Students will be able to expand a binomial using Pascal's Triangle and to use the Binomial Theorem.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Theorems About Roots of Polynomial Equations and The Binomial Theorem. (5-5 and 5-7)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

Friday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will review Polynomials and Polynomial Functions

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Carousel Of Problems]
Students will walk around the room with their 12:00 Clock Buddy and complete review problems from Chapter 5.

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

March 18-22

Monday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of equations using elimination and application.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]
Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of solutions by elimination and application.

AFTER/EVALUATE: [Study Guide]
Students will receive a study guide that needs to be completed by Thursday for the Unit 2 test on equations and inequalities.

Tuesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of equations with 3 variables.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]
Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of solutions by graphing and elimination.

AFTER/EVALUATE: [Math Lib]
Students will solve systems with three variables by completing the math lib that has been posted around the room.

Wednesday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will solve systems of inequalities.

BELL RINGER: [ACT Elements]

Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Supplies]
Students will get 2 different colors to graph and shade systems of inequalities.

DURING/EXPLAIN: [Jot Notes]
Students will solve systems of inequalities by shading.

AFTER/EVALUATE: [Coloring Activity]
Students will solve systems of equations with 3 variables and turn in for 10 bonus points.

Thursday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will study for the Unit 2 Test on equations and inequalities.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Think Aloud]
Students will talk out loud what a system of equations is and the 3 ways to solve the system.

DURING/EXPLAIN: [Study Guide]
Students will complete the study guide they received on Monday with partners.

AFTER/EVALUATE: [Q&A]
Students will ask any questions they may have on the Unit Test.

Friday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will take the Unit Test on equations and inequalities.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Assessment]
Students will have the entire class time to take the Unit Test.

DURING/EXPLAIN: [Assessment]
Students will have the entire class time to take the Unit Test.

AFTER/EVALUATE: [Assessment]
Students will have the entire class time to take the Unit Test.

April 1-5

Monday: **COS: N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will be able to solve equations using the Rational Root Theorem and the Conjugate Root Theorem. Students will be able to expand a binomial using Pascal's Triangle and to use the Binomial Theorem.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Theorems About Roots of Polynomial Equations and The Binomial Theorem. (5-5 and 5-7)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

Tuesday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will review Polynomials and Polynomial Functions

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Carousel Of Problems]
Students will walk around the room with their 12:00 Clock Buddy and complete review problems from Chapter 5.

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

Wednesday: **COS: A.REI.11 Explain why the x-coordinates of the points where the graphs of the equations y=f(x) and y=g(x) intersect are the solutions of the equation… A.APR.2 Know and apply the Remainder Theorem: For a polynomial p(x) and a number a, the remainder of division by x-a is p(a), so p(a)=0 iff (x-a) is a factor of p(x)N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will review Polynomials and Polynomial Functions

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Assessment]
Students will be tested on Chapter 5

AFTER/EVALUATE: [READ]
Students will read their library books until everyone has completed the test.

Thursday: **COS: F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.**

DAILY OBJECTIVE: Students will be able to model data with quadratic functions.

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Quadrant Cards]
Students will define terms, give words with the same meaning, and give examples of those terms.

DURING/EXPLAIN: [I do, We do, Y'all do]
Students will watch examples being worked, work examples with the class, and work examples on their own.

AFTER/EVALUATE: [Lesson Check with Plickers]
Students will use their Plickers Cards to answer questions from the lesson.

Friday:**COS: N.CN.7 Solve quadratic equations with real coefficients the have complex solutions. A.APR.5 Know and apply the Binomial Theorem for the expansion of (x+y)^n in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.**

DAILY OBJECTIVE: Students will be able to solve equations using the Rational Root Theorem and the Conjugate Root Theorem. Students will be able to expand a binomial using Pascal's Triangle and to use the Binomial Theorem.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Theorems About Roots of Polynomial Equations and The Binomial Theorem. (5-5 and 5-7)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 5

April 8-12

Monday: **COS: A.REI. 4.b Solve quadratic equations by … the quadratic formula… N.CN.1 Know there is a complex number I such that I squared equals -1 and every complex number has the form a + bi with a and b real.**

DAILY OBJECTIVE: Students will be able to solve quadratic equations by using the quadratic formula and to identify, and perform operations with complex numbers.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review Quiz]
Students will go over and ask questions about their quiz.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on The Quadratic Formula and Complex Numbers (4-7 & 4-8)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the lesson.

Tuesday:**COS: A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

DAILY OBJECTIVE: Students will be able to solve and graph systems of linear and quadratic equations and inequalities.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Minute Math]**
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: **[I do, We do, You do]**
Students will take notes on Quadratic Systems (4-9)

AFTER/EVALUATE: **[Chapter Check]**
Students will answer questions out loud from Chapter 4

Wednesday: **COS: A.REI. 4.b Solve quadratic equations by … the quadratic formula… N.CN.1 Know there is a complex number I such that I squared equals -1 and every complex number has the form a + bi with a and b real. A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

DAILY OBJECTIVE: Students will review Quadratic functions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Q & A]**
Students will ask questions from the chapter.

DURING/EXPLAIN: **[Carousel of Problems]**
Students will get with their 3:00 buddy and complete the problems posted around the room.

AFTER/EVALUATE: **[Q & A]**
Students will ask questions from the chapter.

Thursday: **COS: A.REI. 4.b Solve quadratic equations by … the quadratic formula… N.CN.1 Know there is a complex number I such that I squared equals -1 and every complex number has the form a + bi with a and b real. A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.**

DAILY OBJECTIVE: Students will be evaluated on quadratic functions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: **[Q & A]**
Students will ask questions from the chapter.

DURING/EXPLAIN: **[Assessment]**
Students will be evaluated on quadratic functions (Chapter 4)

AFTER/EVALUATE: **[READ]**
Students will read their library book once they finish their tests.

HOMEWORK:

Friday: **COS: F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. DOK 1-3**

DAILY OBJECTIVE: Students will be able to add, subtract, multiply, and divide functions; to find the composite of two functions; find the inverse of a relation or function.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review the test from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Function Operations and Inverse Relations and Functions (6-6 & 6-7)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

April 15-19

Monday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. DOK 1-3**

DAILY OBJECTIVE: Students will be able to add and subtract radical expressions and to simplify expressions with rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review classwork from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Binomial Radical Expressions and Rational Exponents (6-3 & 6-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Tuesday: **COS: A.REI.2 Solve simple rational and radical equations in one variable, and … show how extraneous solutions may arise. A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. DOK 1-3**

DAILY OBJECTIVE: Students will be able to solve square root and other radical equations.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Solving Square Root and Other Radical Equations (6-5)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

Wednesday: **COS: F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. DOK 1-3**

DAILY OBJECTIVE: Students will be able to add, subtract, multiply, and divide functions; to find the composite of two functions; find the inverse of a relation or function.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review the test from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Function Operations and Inverse Relations and Functions (6-6 & 6-7)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Thursday:**COS: F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms… DOK 1-3**

DAILY OBJECTIVE: Students will be able to graph square root and other radical functions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Graphing Radical Functions (6-8)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

Friday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.**
F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms… DOK 1-3

DAILY OBJECTIVE: Students will review Chapter 6

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Carousel of Problems]
Students will get with their 3:00 Clock Buddy and solve problems posted around the room.

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

April 22-26

Monday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it.**

DAILY OBJECTIVE: Students will be able to find nth roots and to multiply and divide radical expressions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Quick Write]
Students will write one paragraph on what they know about exponents.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Roots and Radical Expressions and Multiplying and Dividing Radical Expressions. (6-1 & 6-2)

AFTER/EVALUATE: [Lesson Check]
Students will answer questions from the lesson.

Tuesday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.**

DAILY OBJECTIVE: Students will be able to add and subtract radical expressions and to simplify expressions with rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review classwork from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Binomial Radical Expressions and Rational Exponents (6-3 & 6-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Wednesday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it.**

DAILY OBJECTIVE: Students will be able to find nth roots and to multiply and divide radical expressions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Quick Write]
Students will write one paragraph on what they know about exponents.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Roots and Radical Expressions and Multiplying and Dividing Radical Expressions. (6-1 & 6-2)

AFTER/EVALUATE: [Lesson Check]
Students will answer questions from the lesson.

Thursday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. Webb's DOK 1-2**

DAILY OBJECTIVE: Students will be able to add and subtract radical expressions and to simplify expressions with rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review classwork from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Binomial Radical Expressions and Rational Exponents (6-3 & 6-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Friday: **COS: A.REI.2 Solve simple rational and radical equations in one variable, and … show how extraneous solutions may arise. A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.**

DAILY OBJECTIVE: Students will be able to solve square root and other radical equations.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Solving Square Root and Other Radical Equations (6-5)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

April 29- May 3

Monday: **COS:** A.SSE.2 Use the structure of an expression to identify ways to rewrite it.

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic cases.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Factoring Quadratic Expressions (4-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the lesson.

Tuesday: **COS:** A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.

DAILY OBJECTIVE: Students will be able to graph quadratic functions written in standard form.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on standard form of quadratic functions. (4-2)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the lesson.

Wednesday: **COS:** A.SSE.2 Use the structure of an expression to identify ways to rewrite it.

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic cases.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Factoring Quadratic Expressions (4-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the lesson.

Thursday: **COS: ALL**

DAILY OBJECTIVE: Students will prepare for ACT on Saturday

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Formula Review]
Students will review ACT formulas and strategies

DURING/EXPLAIN: [Math Glow Games]
Students will watch examples being worked, work examples with the class, and work examples on their own.

AFTER/EVALUATE: [Calculate Final Average]]
Students will use their Plickers Cards to answer questions from the lesson.

Friday: **COS: A.SSE.2 Use the structure of an expression to identify ways to re-write it.**

DAILY OBJECTIVE: Students will be able to find common and binomial factors of quadratic expressions and to factor special quadratic expressions.

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review and Quiz]
Students will take a quiz on quadratic functions.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on factoring quadratic expressions.

AFTER/EVALUATE: [Exit Slip]
Students will be complete an ACT Prep question and turn it in as their ticket out of class.

May 6-10

Monday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. DOK 1-3**

DAILY OBJECTIVE: Students will be able to add and subtract radical expressions and to simplify expressions with rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review classwork from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Binomial Radical Expressions and Rational Exponents (6-3 & 6-4)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Tuesday: **COS: A.REI.2 Solve simple rational and radical equations in one variable, and … show how extraneous solutions may arise. A.CED.4 Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. DOK 1-3**

DAILY OBJECTIVE: Students will be able to solve square root and other radical equations.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Solving Square Root and Other Radical Equations (6-5)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

Wednesday: **COS: F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. DOK 1-3**

DAILY OBJECTIVE: Students will be able to add, subtract, multiply, and divide functions; to find the composite of two functions; find the inverse of a relation or function.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Review]
Students will review the test from yesterday.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Function Operations and Inverse Relations and Functions (6-6 & 6-7)

AFTER/EVALUATE: [Exit Slip]
Students will answer questions from the chapter.

Thursday:**COS: F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms… DOK 1-3**

DAILY OBJECTIVE: Students will be able to graph square root and other radical functions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on Graphing Radical Functions (6-8)

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

Friday: **COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents.**
F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms… DOK 1-3

DAILY OBJECTIVE: Students will review Chapter 6

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will race to see who can graph the most quadratic functions.

DURING/EXPLAIN: [Carousel of Problems]
Students will get with their 3:00 Clock Buddy and solve problems posted around the room.

AFTER/EVALUATE: [Chapter Check]
Students will answer questions out loud from Chapter 6

May 13-17

Monday: **ALCOS:** 20-21

DAILY OBJECTIVE: Students will be able to factor polynomials with real coefficients using factors with complex coefficients.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [Carousel of Problems]
Students will walk around the room with a clock buddy and solve the problems that are placed around the room.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Complex Zeros and the Fundamental Theorem of Algebra.

AFTER/EVALUATE: [Review]
Students will answer problems from the lesson.

Tuesday:**COS: 18C. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available and showing end behavior.**

DAILY OBJECTIVE: Students will be able to graph rational functions.

BELLRINGER: Students will solve 1-3 math problems in their notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [I do, We do, You do]
Students will work examples independently and dependently on Graphs of Rational Functions (2.6)

AFTER/EVALUATE: [Rationals 4-Way]
Students will get in groups of four (determined by Price). Each student will have to complete one step of graphing rationals (Factoring, x-intercept, y-intercept, horizontal and vertical asymptotes, and holes)

Wednesday: **COS**: **18C. Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available and showing end behavior.**

DAILY OBJECTIVE: Students will be able to solve equations involving fractions using both algebraic and graphical techniques and to identify extraneous solutions.

BELLRINGER: Students will solve 1-3 math problems in their notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [FLIPPED CLASSROOM]
Students will discuss the notes they took at home. Students will work problems on Solving Equations in One Variable (2.7)

AFTER/EVALUATE: [Exit Slip]
Students will write one advantage of the flipped classroom and one disadvantage of the flipped classroom.

Thursday: **COS**: 20-21

DAILY OBJECTIVE: Students will be able to solve inequalities involving polynomials and rational functions by using both algebraic and graphical techniques.

BELLRINGER: Students will solve 1-3 math problems in their notebooks.

BEFORE/ENGAGE: [Minute Math]
Students will see who can solve the most PEMDAS problems in one minute.

DURING/EXPLAIN: [Jot Notes]
Students will take notes on Solving Inequalities in One Variable (2.8)

AFTER/EVALUATE: [Round Robin]
Students will get in groups of four and solve problems going one step at a time.

Friday:**COS**: **17-21**

DAILY OBJECTIVE: Students will be able to solve inequalities involving polynomials and rational functions by using both algebraic and graphical techniques. Students will be able to solve equations involving fractions using both algebraic and graphical techniques and to identify extraneous solutions Students will be able to factor polynomials with real coefficients using factors with complex coefficients.

BELLRINGER: Students will solve 1-3 math problems in their notebooks.

BEFORE/ENGAGE: [Quick Quiz]
Students will be verbally quizzed on Solving Inequalities.

DURING/EXPLAIN: [Review]
Students will work on a Study Guide for Chapter 2.

AFTER/EVALUATE: [Exit Slip]
Students will list 3 things they are struggling with the most in Chapter 2.

HOMEWORK: Study for Test

May 20-24

Monday: **COS:** Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. [A-CED2]

Daily Objective: Students will review parent functions and transformations by completing the Unit 3 Study Guide.

BELL RINGER: [ACT Elements]
Students will complete 2-3 questions from the ACT Elements to help increase scores.

BEFORE/ENGAGE: [Study Guide]
Students will work with a partner to complete the study guide for the final.

DURING/EXPLAIN: [Study Guide]
Students will work with a partner to complete the study guide for the final

AFTER/EVALUATE: [Study Guide]
Students will work with a partner to complete the study guide for the final.

Tuesday: COS: F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms…

DAILY OBJECTIVE: Students will be able to graph square root and other radical functions.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Prep]
Students will complete ACT practice questions.

DURING/EXPLAIN: [I do, We do, You do]
Students will take notes on their final study guide and work together.

AFTER/EVALUATE: [Lesson Check]
Students will answer questions out loud from the final study guide.

Wednesday:
COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms…

DAILY OBJECTIVE: Students will review Chapter 6

BELLRINGER: Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Prep]
Students will complete ACT practice questions.

DURING/EXPLAIN: [Carousel of Problems]
Students will get with their 3:00 Clock Buddy and solve problems posted around the room.

AFTER/EVALUATE: [Lesson Check]
Students will answer questions out loud from the study guide.

Thursdayand Friday:

COS: A.SSE.2 Use the structure of an expression to identify ways to rewrite it. N.RN.2 Rewrite expressions involving radicals and rational exponents using the properties of exponents. F.BF.1.b Combine standard function types using arithmetic operations. F.BF.1.c Compose functions. F.BF.4.a Solve an equation of the form f(x)=c for a simple function f that has an inverse and write an expression for the inverse. F.IF.7.b Graph square root and cube root functions. . . F.IF.8 Write a function defined by an expression in different but equivalent forms…

DAILY OBJECTIVE: Students will be evaluated on radical functions and rational exponents.

BELLRINGER:
Students will solve 1-3 problems in their math notebooks.

BEFORE/ENGAGE: [ACT Prep]
Students will complete ACT practice questions.

DURING/EXPLAIN: [Assessment]
Students will take their final

AFTER/EVALUATE: [Read]
Students will read their library books after they finish the final.
