Algebra 1 Syllabus RRHS 2017-2018

COURSE IDENTIFICATION: TITLE: Algebra 1 A/B

BUILDING: Engineering & Technology

ROOM: E&T 118

COURSE INSTRUCTORS: Nolan Deal & Jessica Arrieta

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PREREQUISITE (S): Successful Completion of regular 8th – grade mathematics

TEXTBOOK: Eureka! Algebra 1 – unbound copy, 1 per student, provided by teacher

SUPPLIES: REQUIRED: Pencils, pens, college ruled notebook paper, 5

divider sheets, 1.5" 3-ring binder

OPTIONAL: Graphing Calculator (TI-84 is the best option for

this class), Graph paper, highlighters

COURSE OVERVIEW:

The purpose and mantra of this class is to exceed the standard, rather than meet the standard for the Algebra 1 course work. This program is designed to meet the needs of students who are entering the mathematical field of study, eventually leading to higher capacities within our content area and educational design. As the world changes ever so rapid into the mathematical realm, it is imperative that students in our content area be given additional assessments relating to experiences and academic challenges. To accomplish the higher standards of education that the math curriculum commands, students will participate in collaborative processes enhancing a more practical approach realistic in real world applications. Students will engage throughout the year with PARRC's achievement testing in accordance with State Common Core Curriculum for graduation requirements. This year, RRPS celebrates 21 years in the community with a renewed commitment to assuring our students graduate with the skills and abilities necessary for success in higher education and the world of work. The State of New Mexico has adopted these new standards and tests, which are designed to help our students gain the skills and abilities they need to adapt to the rapidly-changing realities of life in the 21st century. Commitment and support to this transition will make it a successful one for our students. In this particular section of Algebra 1 there will be two primary instructors leading the class towards these academic goals.

COURSE DESCRIPTION:

In Common Core Mathematics, Algebra 1, students encounter a more ambitious version using Modules. These modules 1-4 deepen and extend students understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students also engage in methods for analyzing, solving and using quadratic functions. The Mathematical Practice Standards apply throughout each course module and, together with the content standards prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. This course is designed to teach students how to solve problems that involve variables and work with rational numbers. Students learn the basic structure of the real number system and recognize techniques for solving equations and inequalities, graphing, operations with polynomial expressions/equations, techniques of factoring, systems of equations and quadratic equations. The course also includes reinforcement of computational skills with extensions to problem-

solving techniques. Evaluation of knowledge will include presentations, projects, lesson(s)/exits-homework, and mid- end of module assessments. Depth of Knowledge (DOK) will cover all 4 levels: recall, skill/concept, strategic thinking and extended thinking to describe, explain, and interpret.

<u>CRITERIA FOR EVALUATION</u>: Each semester will be divided into two quarter grades that account for a portion of the final grade.

- > Semester Grade will be broken down as follows:
 - O Quarter 1: 40% of semester grade
 - O Quarter 2: 40% of semester grade
 - o Final Exam: 20% of semester grade
- Each 9 weeks grade will be broken down in the following grading scale:
 - o Common Assessment: 50%
 - Quizzes: 20%"Practice": 20%Homework: 10%
- > Cheating will not be tolerated in this course! If a student is caught cheating on an assignment or on a common assessment they will receive a 0 and their Parent/Guardian will be contacted about their behavior.
- \rightarrow A = 90-100 % B = 80-89 % C = 70-79 % D = 60-69 % F = Performance below 60

COURSE MATHEMATICAL POWER STANDARDS: (CMPS)

The standards addressed in this course are taken from the CCSS list of Mathematics Content Standards. For more information about which standards are addressed, see below, or visit commoncore.org or corestandards.org.

- ✓ Upon completion of this course students will demonstrate proficiency in:
 - ➤ 1. <u>Make sense</u> of problems and persevere in solving them.
 - > 2. Reason abstractly and quantitatively.
 - > 3. Construct viable <u>arguments</u> and critique the reasoning of others.
 - ➤ 4. Model with mathematics.
 - ➤ 5. Use appropriate <u>tools</u> strategically.
 - ► 6. Attend to <u>precision</u>.
 - > 7. Look for and make use of structure.
 - > 8. Look and express regularity in repeated reasoning.

CLASS POLICIES/PROCEDURES:

<u>BACKPACKS</u> – At the beginning of class students will be expected to put away their cell phones/electronic devices in their backpacks and take out their binders and other supplies that they may need for the day. Afterwards they will put their backpacks in the back of the room for the remainder of the class until they are otherwise instructed.

<u>TARDIES</u> – Students are expected to arrive to class on time. That means as soon as the last bell rings students must be present inside the classroom. If the student is issued 5 tardies then they will receive ISS from their grade level principal for that tardy and every tardy afterwards.

<u>HOMEWORK</u> – Homework will be assigned at least once a week (most of the time it will be more than once a week). Students are expected to complete their homework and turn in at the beginning of class by the specified due date for each assignment. Students will be deducted 10% every day their assignment is late for up to 3 days. After 3 days late homework will not be accepted and students will receive a 0 for the assignment, unless they have an excused absence.

<u>LATE WORK/MAKE-UP WOK POLICIES</u> – Students will deducted 10% every day an assignment is late past the due date for up to 3 days. After 3 days students will receive a 0 for the assignment. If a student is absent they will be redirected towards the back of the room where there will be assignments from the previous day. They may also look at the weekly calendar so they know what was covered during the class they missed.

<u>COMMUNICATION</u> – Students are encouraged to sign up for Remind 101 on their phones so that they may get message alerts pertaining to any changes that may occur in the class or if they need to be reminded of an upcoming assignment. There will also be a widget for Remind on our School Messenger pages. Students may download the app if they have a smartphone or they may receive text alerts as well (though the app is preferable).

<u>HALL PASSES</u> – Rio Rancho High School runs on a 7-period schedule that are approximately 52 minutes long. Due to this passes will NOT be given out during the first or last 10 minutes of class. When a student needs to use a hall pass there will be a sign out sheet by the door that they must sign out on. This is required in ALL classes in case of emergencies such as fire drills or lock down drills.

ONLINE RESOURCES – High school marks the beginning of students becoming more accountable for their education to a much higher degree. Therefore students will be encouraged to seek out answers to their own questions by utilizing online resources at home. There are plenty of useful online resources, the most popular being Khan Academy. There you will find videos about topics we are covering and sets of practice problems. Another useful resource to utilize will be to use will be YouTube; typing in the topic at hand will give a large amount of videos teaching different or similar ways to utilize techniques gone over in class.

<u>CALCULATORS:</u> Calculators will be used to a fair extent in this class. Students are encouraged, but not required, to purchase their own TI-84 Calculator. If a student wishes to check out a calculator they will be permitted to do so on the condition that they turn in their cell phones as collateral. Their phones will be locked up in one of the instructor's desks so they will remain safe during the duration of the class.

CLASSROOM RULES

- 1. <u>NON-NEGOTIABLES:</u> These following rule are non-negotiable. Not following these rule will result in IMMEDIATE disciplinary action!!!
 - > No bullying! Bullying is defined as unwanted aggressive behavior that creates a power imbalance between two or more individuals. Bullying comes in all kinds of different forms including physical, verbal, and cyber bullying. If either instructor becomes a witness to such behaviors there will be immediate disciplinary action put forth.
 - No using derogatory words or slander towards any race, sex, gender, etc. The classroom is a safe place for students of every variety, so this rule will be strictly enforced.

> Cell phones will not be allowed to be used! Look at the full cell phone/electronic device policy for further detail.

2. Respect

- Show respect to teachers, yourself and others at all times
- Respect your teacher and classmates by raising your hand and waiting to be called on to speak, so that everyone can hear.
- Respect others' property. Do not touch or write on anything that doesn't belong to you.
- Respect yourself and others by respecting the dress code and using respectful language.

3. Achieve

- > Put forth your best effort at all times
- Ask questions, you may not be the only one that needs clarification.
- > Do your own best work, be engaged in class
- > Be prepared for class each day, be in class daily
- > Bring your workbook/Binder, pencil, calculator, and other supplies daily
- ➤ Be focused and attentive in class, preserve a positive learning environment
- Actions that interfere with others' learning or teaching will not be tolerated
- ➤ Use your class time to become fluent in Algebra, not to sleep, groom, or catch up on other classes
- Maintaining a positive attitude can make the hard problem easier
- Take responsibility for your actions
- If you are confronted about a situation, own up to it! Do not blame others, or deny it.
- Take ownership of your work, ask for missing work and be proud of what you create.

4. ABSOLUTELY "NO" CELL PHONES OR ELECTONIC DEVICES!

- ➤ Cell phones and other electronic devices are not only a distraction to others, but to the teacher as well. So, leave them turned off in your backpack. The first offence will result in it being confiscated for the class period. The second offense will result in it being confiscated and will need to be picked up at the E&T administration office by the student at the end of the day. The third offense will result in the device being needed to be picked up by a parent or guardian after school. Failure to comply with these rules will result in a referral. This rule is not negotiable.
- FOOD: Small snacks and drinks with lids are allowed for the time being. If students fail to pick up after themselves there will be no more snacks permitted in class.
- ➤ <u>POWERSCHOOL</u>: (http://powerschool.rrps.net) is the site that contains all academic and attendance concerns for all students. For further information visit our website at: www.rrps.net
- > <u>School Messenger</u> (https://rioranchohigh.rrps.net/classes/math) provides all instructional and teacher links.
- ➤ <u>TUTORING</u>: Tutoring will be made available on Wednesday during A and B lunch by appointment. This is subject to change as the school year goes on.
- DRESS CODE: Dress code will be strictly enforced in class. For boys, this includes no tank tops and no sagging pants. No hats and no hoods will be worn in class. Hats worn will be confiscated and will be available for pick up at the end of the school day. For girls, no tank tops, no spaghetti straps, no sleeveless blouses, the naval area must be covered up, and skirts cannot be more than 3 inches above the knee. Students are expected to follow this dress code or they will be sent to the office for a change of clothes. See the student handbook for more details about the dress code.

MANAGEMENT-CLASSROOM SKILLS: Students will be expected to conduct themselves in an appropriate employable manner. Students will be evaluated on their class attendance, team player cooperation, appropriate dress and behavior, math skills, citizenship and participation.

>>> SUBSTITUTE POLICY <<<

- 1. All classes & students will be informed of expectations during school introduction, management and policies.
- 2. Instructor will provide SUB:
 - a. Designated Class Leaders lesson plans
 - b. Class Lesson Plans
 - c. Class roster-seating chart for attendance
 - d. Class assignments
- 3. Students will:
 - a. Follow Class Leaders and SUB directions at all times.
 - b. Behave & conduct themselves in a civilized manner.
 - c. Be punctual to class, stay in desks, ask permission
 - d. Protect room environment, be extremely quiet!
 - e. Perform responsibly and assist SUB at all times
 - f. Class operates in "Total Team" effort
 - g. In Case of Emergency Class Leaders/Sub Act Immediately
- 4. Student-Class earned rewards incentives:
 - a. Given to the best classes, instructor's option!
- 5. Student-Class Consequences:
 - a. Instructor contacts Parent immediately for disciplinary action!

COURSE OUTLINE:
This schedule is TENTATIVE; modifications may be made to suit the needs of the class.

Algebra 1 Eureka Math

*R&E-Remediation, Extension, Assessment

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|---|--|-----------|--|--|
| | Quarter 1 | | | |
| MODULE 1: Relationships Between Quantities and Reasoning with Equations and Their Graphs (21 days) | | | | |
| Please note: Topic A has been distributed throughout the year as conceptual introductions Lessons 5, 11-13, 18-20, 23 | | | | |
| Linear Equations | A-CED.2, A-CED.3, A-CED.4, A-REI.1, A-REI.3, A-REI.10, A-REI.12 A-REI.5, A-REI.6 | 8-11 days | | |
| Assessment | Mid-Module Assessment | 1 day | | |
| Linear Inequalitie s And | Lessons 14-16, 21, 22, 24 A-CED.1, A-CED.2, A-CED.3, A-CED.4, A-REI.1, A-REI.3, A-REI.10, A-REI.11, A-REI.12 | 6-8 days | | |
| Systems | A-REI.5, A-REI.6 | | | |
| Assessment | End-of-Module Assessment | 1 day | | |
| | MODULE 2: Descriptive Statistics (Part 1) (11 days) | | | |
| Data and Linear Modeling | Lessons 12-16, 19 A-SSE.1, A-CED.1, A-CED.2, A-REI.3, A-SID.6c, A-SID.7, A-SID.8 N-Q.1 | 6-9 days | | |
| Assessment | Quiz | 1 day | | |
| | MODULE 3: Linear and Exponential Functions (7 days) | | | |
| Functions and Function Notation | Lessons 8-12 F-IF.1, F-IF.2, F-IF.4, F-IF.5 | 5-6 days | | |
| Piecewise Functions | Module 1 Lesson 1, Module 3 Lessons 15, 24 A-CED.3 F-IF.7a | 3-4 days | | |
| Assessment | Quiz (on lessons 8-12) | 1 day | | |
| Quarter 2 | | | | |
| | MODULE 3: Linear and Exponential Functions (14 days) | | | |
| Linear and Exponential Sequences | Lessons 1-3 F-IF.1, F-IF.2, F-IF.3, F-IF.6 F-BF.1a, F-LE.1, F-LE.2, F-LE.3 | 3-6 days | | |
| Assessment | Quiz on lessons 15, 24, 1-3 | 1 day | | |
| Exponential Equations | Module 1 Lesson 3, Module 3 Lessons 4-7, 14, 21, 22 A-CED.1 F-LE.1, F-LE.2, F-LE.5, F-IF.7.e, F-IF.8 | 8-11 days | | |
| Assessment | End-of-Module Assessment | 1 day | | |

| MODULE 2: Descriptive Statistics (Part) (15 days) | | | | |
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| Data Distribution s (Statistics) | Lessons 1-3, 7-11 S-ID.1, S-ID.2, S-ID.3, S-ID.1, S-ID.2, S-ID.3 S-ID.9 S-ID.5 | 8-13 days | | |
| Assessment | Quiz (on lessons 1-3, 7-11) | 1 day | | |
| Semester 1 R&E and EOC | 9 days for Remediation and Extension | 11 days | | |
| | Quarter 3 | | | |
| MODULE 1: Relationships Between Quantities and Reasoning with Equations and Their Graphs (3 days) | | | | |
| Polynomials and Exponents | Lessons 6, 8, 9 A-SSE.2, A-APR.1 | 3 days | | |
| • | LE 4: Polynomial and Quadratic Expressions, Equations and Functions (| 34 days) | | |
| Multiplying and Factoring | Lessons 1-4 A-SSE.1, A-SSE.2, A-APR.1, A-REI.4b, A-REI.11, A-CED.1, A-CED.2, F-IF.4, F-IF.5, F-IF.6 A-SSE.3a, F-IF.7a | 4-5 days | | |
| Assessment | Quiz (on Multiplying Polynomials and Factoring Quadratic Expressions) | 1 day | | |
| Solving Quadratic Equations | Module 1 Lesson 17, Module 4 Lessons 5-7 A-SSE.1, A-SSE.2, A-REI.4, A-CED.1, A-CED.2, F-IF.4, F-IF.6 A-SSE.3b, A-APR.3, F-IF.7a, F-IF.8a | 4-6 days | | |
| Assessment | Quiz (on Solving Quadratic Equations) | 1 day | | |
| Basics of Quadratic Graphs | Module 1 Lesson 2, Module 4 Lessons 8-10 A-APR.3, F-IF.4, F-IF.7 | 5-7 days | | |
| Assessment | Mid-Module Assessment | 1 day | | |
| Completing the Square and Quadratic Formula | Lessons 11-15 A-SSE.1, A-SSE.2, A-REI.4, A-CED.1, A-CED.2, F-IF.4, F-IF.6 A-SSE.3b, A-APR.3, F-IF.7a, F-IF.8a | 6-8 days | | |
| Assessment | Quiz (on Completing the Square and Quadratic Formula) | 1 day | | |
| Graphing Quadratics and Transformati ons of Functions. | Lessons 16-20 A-CED.2, F-IF.5, F-IF.6 F-IF.7b, F-IF.8a, F-IF.9, A-SSE.3, A-APR.3 F-BF.3 | 8 days | | |

| Quarter 4 |
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| CONTINUATION OF MODULE 4: Polynomial and Quadratic Expressions, Equations and |
| Functions (7 days) |

| More | Lessons 21-24 | | | |
|---------------|--|-----------|--|--|
| Transformati | A-CED.2, F-IF.6 | 7 10 days | | |
| ons of | F-IF.7b, F-IF.8a, F-IF.9 | 7-10 days | | |
| Functions | F-BF.3 | | | |
| Assessment | End of Module Assessment | 1 day | | |
| PARCC TESTING | | | | |
| Semester 2 | | | | |
| R&E and | Select lessons from Module 5, Review, Remediation, Extension, EOCs | 8+ days | | |
| EOC | | | | |

FINAL NOTE

- 1. 18 Oct. is end of 1st quarter, 20 Dec is end of Fall Semester, 14 Mar. end of 3rd quarter
- 2. <u>STUDENT PROGRESS:</u> Students' progress can be monitored regularly using Parent Connect. Students will be informed by instructor of their current weekly grades in the classroom. It is the student's responsibility to complete all lessons, exit lessons, homework, assessments, projects and any additional tasks assigned.
- 3. <u>CLASSROOM MANAGEMENT SKILLS:</u> Students will be expected to conduct themselves in an appropriate manner. Students will be evaluated on their class attendance, team player, appropriate dress code and behavior, math skills, and management for their weekly class grade. Attendance is vital and completing all tasks assigned.
- 4. <u>ON-LINE RESOURCES:</u> Every student will have access to an on-line resources, various tutorials, videos, practice problems and assessments. Students are encouraged to regularly use the on-line resources.
- MAKE-UP WORK: All assignments are to be completed based on instructor's deadline.
 Unexcused Absence: No late work accepted.
 Excused Absence: Verified, students/parents responsibility to obtain, complete work within # days excused.
- 6. Syllabi subject to change per Instructors discretion.