ALGEBRA I SE – COURSE SYLLABUS - PAPA

2019-2020

Course	Instructor	Resources
Algebra I SE **Room 5** **6th Period (1:26-2:20)**	**Teacher: Alyssa Demgar** **e-mail: ademgar@paparts.org** **Phone: (505) 830-3128**	**Textbook: Algebra 1 ~ Common Core (Pearson)** **Supplemental materials: Math U See**

Course Description

This algebra course allows the student to use problem solving, visual learning, big ideas, interactive learning and differentiated instruction to master the Algebra 1 Common Core State Standards for mathematics. The student will be expected to utilize the following mathematical practices:

1. Make sense of problems and preserver in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Essential Student Learning Outcomes:

- Students will demonstrate strong problem solving and reasoning skills to develop mathematical proficiency.
- Students will simplify and/or solve a wide variety of number and algebraic expressions (including exponents and radicals).
- Students will understand linear functions, graphs, inequalities and solve linear equations (including systems).
- Students will represent, describe and compare data sets.
- Students will understand quadratic functions, their graphs and solve quadratic equations.

Course Outline

1st Semester	2nd Semester
❖ **Foundations for Algebra** ❖ **Solving Equations** ❖ **Solving Inequalities** ❖ **Introduction to Functions** ❖ **Linear Functions** ❖ **Systems of Equations & Inequalities**	❖ **Exponents and Exponential Functions** ❖ **Polynomials and Factoring** ❖ **Quadratic Functions and Equations** ❖ **Radical Expressions and Equations** ❖ **Rational Expressions and functions** ❖ **Data Analysis and Probability**

REQUIRED Materials: ALL materials should be brought to class on a daily basis.

- Student Textbook: PEARSON ALGEBRA 1 ~ Classroom books will be available on a daily basis
- Durable Pocket folder with brads (homework folder)
- Lined composition notebook (will be kept in class)
- Pencil with eraser **and** pen of any color.
- Bring your agenda to class daily.
- Calculator (recommended calculator: TI 83+ or TI 84) Recommended by not required

Grading Scale:	Student Expectations:
Attendance: %10 Math Review: %20 Homework: %20 Formative Assessment: %30 Summative Assessment: %20	**Attendance:** Arrive on time and be seated with materials ready before the bell. **Complete and Appropriate Participation:** There will be times in class that you will be asked to work independently, watch and listen, take accurate notes, cooperate with others, or follow specific instructions. Complete and appropriate participation means that you are engaged and present during all portions of class and taking responsibility for your learning. **Communication:** Communicate with the instructor when you need support with a specific skill, lesson, or assignment. Advocate for yourself. Keep asking for help until you get it. **Respect:** Treat your classmates and instructors with respect through your actions and speech. Be kind. This includes being kind to yourself and developing a growth mindset.

Teaching Style:

My teaching philosophy: My approach to teaching is a balanced approach between exposure to the core curriculum and differentiation. Every student will be exposed to appropriate grade level Algebra 1 content. Every student will receive the supports that they need in the areas of differentiation, modifications, pre-requisite skills and remediation. It is crucial that students develop in both areas. My role as an instructor is not to remove the challenge, but rather to help you develop the skill that you need to meet the challenge.

Class Every class will include:

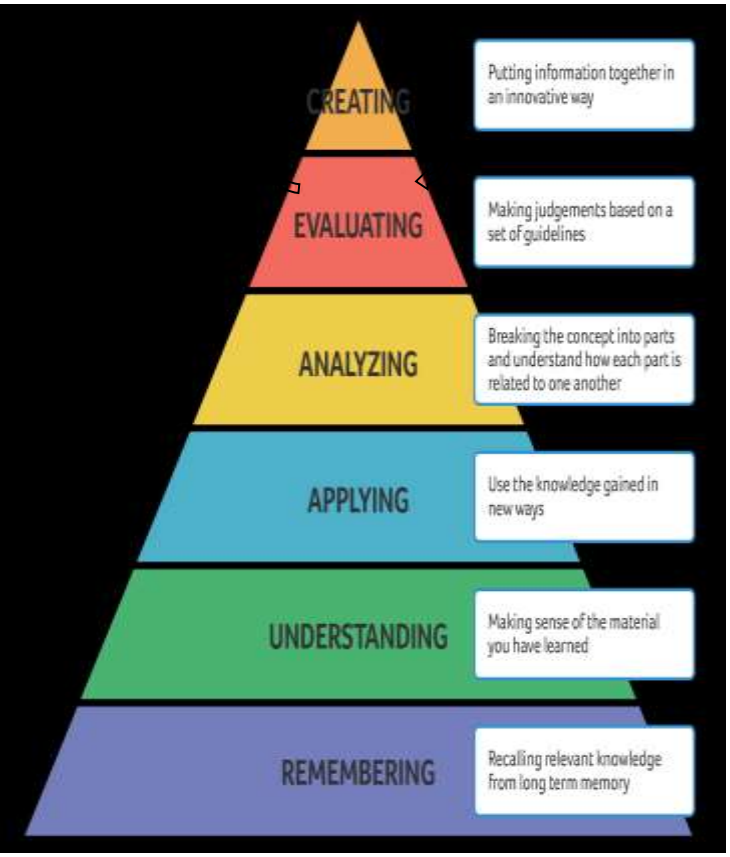
1. Math Review (targeted pre-requisite skills): This is a research-based activity that re-enforces and re-teaches pre-requisite skills. Students work independently on a problem set, then take notes as the instructor works the problem set through a systematic error analysis. Students use metacognition to review their work and correct their mistakes.
Blooms: remembering, understanding, applying, analyzing, evaluating, creating

2. Lesson (Introduction to new material): Each lesson will follow the I-do, we-do, you-do approach. Students are exposed to new information and given the opportunity to apply that knowledge immediately.
Blooms: understanding, applying

3. Practice (group/partner work): Each class will include group or partner work where students develop problem solving and reasoning skills through a variety of activities.
Blooms: Applying, analyzing, evaluating, creating

Pacing Guide for Algebra I as well as Algebra I Blueprint with Standards is attached.

Bloom's Taxonomy



Webb's Depth of Knowledge

DOK 4
Extended Thinking
What else can be done with the knowledge? What is the impact? What is the influence? What if? What would happen? What could happen? What do you believe/feel/think? Justify with facts/information/evidence. What can you create/design/develop?

DOK 3
Strategic Thinking
Why can the knowledge be used? Why did it happen? How/why can you use it? What is cause/effect? What distinguishes/indicates? What is the reason? What is the relationship?

DOK 2
Application of Skills & Concepts
How can knowledge be used? How does/did it happen? How does/did it work? How is/was it used? What is answer/outcome/result?

DOK 1
Recall and Reproduction
What is the knowledge?
Who? What? Where? When? How? Why?