



W.A. PERRY MIDDLE SCHOOL

“Where Excellence is the only Expectation”

Mathematics Course Outline and Procedures

Course: 7th Grade GIFTED Honors Math (Algebra One)

Teacher: Mr. Fletcher

Date: August 2020/21

Room: Building 2 Room 1

INTRODUCTION

The focus of instruction and learning at W.A. Perry Middle is to improve student achievement by stressing academic rigor and relevance. It is our belief that all students, with committed effort, are capable of excelling. Our students will be expected to raise questions, solve problems and think about the real world as they apply concepts and principles in Mathematics for solutions.

This course outline will define the clear expectations of what students are to learn and our expectations for the learning environment.

GOALS

The Standards for Mathematical Practice describe important skills that mathematics educators at all levels seek to develop in their students.

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Connect mathematical ideas and real-world situations through modeling.
5. Use a variety of mathematical tools effectively and strategically.
6. Communicate mathematically and approach mathematical situations with precision. 7.

Identify and utilize structure and patterns

COURSE DESCRIPTION

South Carolina College- and Career-Ready (SCCCR) Algebra 1 is designed to provide students with knowledge and skills to solve problems using simple algebraic tools critically important for college and careers. In SCCCR Algebra 1, students build on the conceptual knowledge and skills they mastered in earlier grades in areas such as algebraic thinking, data analysis, and proportional reasoning. Problem solving (word problems), review of basic arithmetic skills, the use of technology (calculators), and math study skills will be integral components in each of those areas.

STANDARDS &- TOPICS

They are designed to promote a balanced combination of procedural and conceptual understanding. Students who possess a concrete understanding of the topics to be covered will be better able to maneuver many problems posed in Math. The topics covered in this course are Listed below.

1. One-variable equations and inequalities will be used to model and solve problems about real-world scenarios.
2. Linear, quadratic, and exponential functions will be used to model the relationships between quantities in various real-world scenarios.
3. Real-world problems whose constraints can be represented by a pair linear equations or inequalities will be solved by analyzing a system of two equations/inequalities in two unknowns.
4. The laws of exponents will be used to simplify expressions and perform operations on polynomials and on numbers in scientific notation.
5. Polynomial expressions will be rewritten in equivalent factored forms which play an important role in solving quadratic equations and analyzing quadratic functions.
6. Quadratic equations and their related functions will be used to model and solve many mathematical and real-world problems.
7. Exponential functions will be used to analyze and understand many real-world situations that grow or decay by a constant factor.

Below is a list of the topics compact in units. They will be assessed using assessed using tests, projects, and writing assignments.

Unit 1: Relationships between Quantities and Expressions 1

Multi-Step Equations and Inequalities (Including absolute value)

Unit 2: Reasoning with Linear Equations and Inequalities

Functional Relationships; Linear Functions; Systems on Equations

Unit 3: Relationships between Quantities and Expressions 2

Exponents; Polynomial Operations

Unit 4: Modeling and Analyzing Quadratics

Quadratic Equations; Quadratic Functions

Unit 5: Modeling and Analyzing Exponential Functions

Unit 6: Comparing and Contrasting Functions

Characteristics of Functions; Multiple Representations of Functions

Unit 7: Describing Data

EOC Review Project

Final Exam

GRADE SEVEN FOUNDATION MATH (SC READY MATH)

As a 7 Grade Gifted Honors student you will also be sitting the regular grade 7 SC-READY Math exam in May 2020.

You are asked to keep two separate note books as students in the past found it difficult to differentiate the content material needed for Algebra One EOC and SC Ready Math. The course will be integrated with all topics but special emphasis will be placed on storing special content in a SC Ready and an Algebra One notebook. Topics listed below are those from the seventh grade SC Ready Math.

Integers

Comparing & ordering

Adding & subtracting

Multiplying & dividing

Rational Numbers

Decimals & Fractions

Converting

Adding & subtracting

Multiplying & dividing

Complex fractions

Problem solving

Real world integer applications

Integer & Rational Mixed

Absolute value and operations with absolute values

Order of operations (With exponents and multiple grouping symbols)

Algebraic Connections

Sequences

Expressions (arithmetic & algebraic)

Properties of operations

Read, write & evaluate mathematics expressions

Simplifying expressions

Monomials & polynomials

Identify monomials and polynomials, like and unlike terms

Combining like terms

Add and subtract monomials & polynomials

Laws of exponents

Multiply and divide monomials

Zero and negative exponents

More Algebraic Manipulation

Factor & expand linear expressions with rational coefficients

Distributing constants to polynomials

Distributing monomials to polynomials

Factoring GCF from polynomials

Scientific Notation

Write numbers in scientific notation

Translate to standard form

Compare values

Multiply and divide

Problem solving

More on Expressions, Equations & Inequalities

Relating expressions to real life situations

Equations & Inequalities

Translating equations

Solving Equations

Combining like terms

Distributive property

Rational coefficients

Variable on both sides

Ratios and Proportional Relationships

Writing, comparing and simplifying ratios

Unit rates & unit costs (including fractions)

Proportions

Rate & distance problems

Similar figures

Maps & scale drawings

Shadow problems

Area & Volume

Scale Drawing Geometry

COURSE REQUIREMENTS

Our focus requires the development of classroom procedures and expectations that support academic rigor and standards.

Students are expected to be engaged in classroom activities. Classes will incorporate

Mathematics vocabulary activities, fast facts building games, watching and discussing video presentations, working in groups on hands on activities, the use of manipulative, power point presentations, use of work stations, Do Nows, Think- Pair and Share strategies, note taking

Proportional relationships

Identifying their existence (constant of proportionality)

Graphing on the coordinate plane

Slope

Geometry

Identifying angles formed by intersecting lines

- Complementary
- Supplementary
- Vertical
- Adjacent
- Parallel lines cut by a transversal
- Angles in triangles and quadrilaterals
- Interior/exterior
- Classifying polygons
- Perimeter & area

Circumference & area of Circles

(through foldable and notebooks), computer based lessons, SMART Board Interactive Activities and a host of others.

Materials

A graphing calculator (Suggested: Ti-83 or Ti-84, plus or silver edition) is encouraged but not required. This will be provided from the media center. You will be told when to check them out. Once checked out it would be your responsibility to keep it safe.

1 ruler

1 pack plain paper

2 composition notebooks (NO SPIRAL RING notebooks)

College ruled notebook paper

12 Pencils

Pencil sharpener

Highlighters (six colors)

Additional materials may be needed as the year progresses

All students must maintain an accurate and updated composition notebook and an instructional binder. The instructional binder will be used in a systematic way with other subjects as an AVID Initiative. AVID stands for Advancement via Individual Determination. This will be fully explained in your classes.

GRADING PROCEDURES

Grades will be based on a variety of assessments. The criteria for creating the grading policy should include the following:

- a minimum of fifteen assessments documented in the grade book during the nine weeks marking period
- Seven/eight assessments must take place before the interim.
- Five of the fifteen must be major assessments such as tests, written compositions, performance based assessment or projects.
- EOC & SC READY like assessments will be frequently used.

The grading breakdowns are:

- Tests/Projects 40%
- Quizzes 25%
- Class Work 25%
- Homework 10%

Grade Scale: A (90 to 100), B (80 to 89), C (70 to 79), D (60 to 69) F Below 60

Redo/Retake Policy

Richland County School District One is implementing a Redo/Retake Plan as a strategy to help ensure mastery learning for students. Nationwide, educators are continuously looking for methods to incorporate into the classroom which would increase opportunities for students to master content/skills in order to be successful in school. The practice of allowing students to retake assessments, after receiving additional tutoring or instructional support, gives some students additional time to learn as well as deepens their understanding of concepts.

These guidelines include specific assessments that students will be given an opportunity to redo/retake. Assessments covered include the following: weekly assessments, classroom tests/quizzes, and class projects.

Assessments not covered include the following: homework, daily classwork, late work, nine week exams, and final exams.

General Guidelines

- Students who score below 70 can redo/retake up to three (3) assessments/projects per marking period. Students will have only one opportunity to redo/retake each assessment.
 - The higher grade achieved up to 70 (original or redo) will be recorded.
- The teacher determines the re-teaching/tutoring opportunity required prior to the student retaking the assessment.
- Retakes will cover same objectives but will not be the original assessment/assignment. Alternative assignments may be required at the teacher's discretion since some assessments/assignments may not be replicated.
- The redo/retake opportunity will occur no later than within five (5) days of the end of the marking period.

Student Procedures

1. The student must complete a Redo/Retake Plan of Study.
2. Sign and get parent/guardian signature.
3. Submit the Plan of Study to the teacher within three (3) school days of receiving the assessment score below 70.

MODE OF COURSE DELIVERY

Richland One School District has adopted a transitional approach model. We will begin with virtual classes. The classroom rules will outline more detailed expectations and you will hear more in your first own Hall meeting. All initial classes will be online and you are expected to log in on time and be prepared with all materials and prep work. This model will be transitioned into a hybrid model. You will be notified on the date once it has been determined by the School District. The last approach will entail 100% face to face.

W.A. Perry Middle School Microsoft Teams Expectations

Be on time and prepared for class.

Find a comfortable location for online class that is quiet and free of distractions.

Be respectful of your teacher and other classmates when they are speaking.

Mute yourself when entering the online classroom.

Do your best to keep the camera on. Appropriate virtual backgrounds can be used.

Use the chat button to type questions or add comments to the conversation.

If you have a question use the raise hand feature.

Show proper "netiquette" at all times.

Follow all RCSD1 Acceptable Use Policy (AUP) guidelines.

Be patient and try your best!

NINE WEEKS PORTFOLIO

All students will turn in a Portfolio at the end of EACH nine weeks. Portfolio will be kept by the teacher and will be given to students to present to Parents during Academic Report Conference Nights. The Portfolio will have the following binder tabs:

Tab 1 - Do Nows & Notes

Tab 2 – Class Work

Tab 3 – Homework

Tab 4 – Graded Assessment (2Quizzes and 2Test OR 3

Quizzes and 1 Test)

Tab 5 – Mathematical Problem Solving Project

Tab 6 – Rubrics/Special Instructions

Portfolio will be discussed thoroughly in class. It will consist of the five tab categories listed above and will entail four pieces of work under categories one to four and one piece under the category marked mathematical problem solving project. Students may choose documents they tested well on or revised with proper corrections. They will also be expected to provide a brief statement about why they chose each piece and what skills were learned.

The category marked Problem Solving will require students to solve problems using their unique strategies. It may also require students to research, write and apply real world applications to a concept. For example, they may be required to research the term slope and to describe how it is used in the field of construction.

HOMEWORK /LATE ASSIGNMENT POLICY

Homework will be assigned at least three times per week. Students will be expected to have a Homework Journal as questions asked will often require them to write a step by step explanation of their solution.

Students are responsible for the homework regardless of their class attendance. Accommodations will be made for delayed absence due to illness or for other reasonable excuses. Late assignments will attract point deductions.

ACADEMIC DISHONESTY POLICY

There are many different forms of academic dishonesty. The following are just a few examples to help students to have an idea as to what types of behaviors should be avoided.

Cheating: Using unauthorized notes or other study aids during an examination; using unauthorized technology during an examination; improper storage of prohibited notes, course materials and study aids during an exam, looking at other students' work during an exam or in an assignment where collaboration is not allowed; attempting to communicate with other students in order to get help during an exam or in an assignment where collaboration is not allowed; allowing another person to do one's work and submitting it as one's own.

Plagiarism: The representation of another person's work as one's own.

Facilitating Dishonesty: Aiding another person in an act that violates the standards of academic honesty; allowing other students to look at one's own work during an exam or in an assignment

where collaboration is not allowed; providing information, material, or assistance to another person knowing that it may be used in violation of course, departmental, or college academic honesty policies; providing false information in connection with any academic honesty inquiry.

Falsifying records and Official Documents: Forging signatures or falsifying information on official academic documents such as application forms, Hall Passes, Parent Teacher Communication Forms, letters of permission, or any other official School document

ATTENDANCE /TARDY POLICY

After returning to school after an **absence**, a note must be submitted to the database clerk (Guidance Department Office) explaining reason for absence.

Tardies will be logged each day.

1st Tardy: Warning

2nd Tardy: Warning

3rd Tardy: Lunch Detention

4th Tardy: After School Detention

5th: Tardy - Saturday Detention

6th Tardy – Administrative Intervention, This could result in a Referral

ALEKS

ALEKS is a research-based, online program that offers course products for mathematics, business, science, and behavioral science. Using personalized learning and adaptive assessments, ALEKS quickly and accurately determines exactly what a student is most ready to learn. This software will be used in this course to help you to strengthen your math skills. You will receive a username and a password in class and a through introduction to the system.

CONDUCT: Teacher will distribute and discuss Classroom Rules and Procedures in a Separate Document

EXTRA CREDIT: Students can receive extra credits if they are a part of the Afterschool program and if the grades they receive from such program is higher than the one received from me. This however can only contribute 20% towards his total grade.

TUTORING DAYS AND HOURS: To be announced.

CONTACT INFORMATION

Mr. Fletcher

6 – 8 Mathematics

(803) -256-6347 (Extension 3201)

Office Hours: Thursdays and Fridays (4:00 -5:00)

(To better serve you, please call to notify me of your desire to have a conference).

Email address:

kevin.fletcher@richlandone.org

Detach and return bottom portion to teacher. Keep top portion for reference.

I have received the requirements and procedures for (student's name)

_____.

Course Name _____

Parent's/Guardian's Signature

Date Student's

Signature

Phone Number _____