



Carolina High School and Academy

Math Strategies Algebra 1

Syllabus 2026 - 2027

Instructor Name(s): Terrie Rathburn and Laurie Thurston

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Instructor(s)' Schedule:

Rathburn

	FALL Semester	SPRING Semester
1st Block	Intervention	Intervention
2nd Block	Math Strategies	Algebra 1 CP
3rd Block	Planning	Planning
4th Block	Algebra 2 Honors	Algebra 2 Honors

COURSE DESCRIPTION Algebra 1 students will study all of the topics included in SCCR Algebra 1. Beyond the SCCR Algebra I curriculum, honor students will also study additional topics, including step functions, transformations of absolute value functions, solving absolute value inequalities, factoring quartic expressions in quadratic form, translating a quadratic function into vertex form, solving linear & quadratic systems, and sequences as functions. The SCCR Mathematical Process Standards apply throughout the course and, along with content standards, prescribe that students experience math as a coherent, useful, and logical subject. Students will receive one elective credit for Math Strategies in the first semester and one mathematics credit for Algebra 1 in the second semester.

LEARNING OBJECTIVES:

Students will be able to work closely with expressions and equations that define functions and develop their ability to model situations and solve equations, especially with quadratic and exponential functions. Students will model situations using various functions. Students will be able to identify appropriate types of functions to model a situation, adjust parameters to improve the model, and then compare models by analyzing the appropriateness of fit and making judgments about the domain over which a model is a good fit.

TEXTBOOK: Savvas Algebra 1

COURSE OUTLINE

Math Strategies (Semester 1)

Note: Math Strategies is designed to provide learning support for success in Algebra 1. Units of study in Math Strategies are subject to change at the discretion of the teacher based on student learning. Any units of study not addressed during the first semester will be added to the second semester.

Topics	Approximate Days
Unit A: Number Sense	10 days
Unit B: Algebraic Expressions and Equations	8 days
Unit C: Coordinate Plane and Linear Functions	11 days
Unit D: Function Foundations	7 days
Unit 1: Solving Equations and Inequalities	12 days
Unit 2: Linear Equations	15 days
Unit 3: Linear Functions	10 days

Algebra 1 (Second Semester)

Units/Topics	Approximate Days
Unit 1: Solving Equations and Inequalities (Revisit)	5 days
Unit 2: Linear Equations (Revisit)	5 days
Unit 3: Linear Functions (Revisit)	5 days
Unit 4: Systems of Linear Equations and Inequalities	10 days
Unit 5: Exponents, Radicals, and Exponential Functions	16 days
Unit 6: Polynomials and Factoring	10 days
Unit 7: Quadratic Equations	10 days
Unit 8: Solving Quadratic Equations	10 days
Unit 9: Comparing Functions	6 days
Review for End-of-Course Exam	remaining time

MATERIALS NEEDED FOR CLASS:

- Pen or Pencil
- Composition Notebook (will be provided)
- Charged Chromebook
- Chromebook Charger
- Headphones to plug into Chromebook
- TI-84 Graphing Calculator or access to Desmos Graphing Calculator (Calculators will be provided during class and are available to use in the classroom before and after school. The Desmos Graphing Calculator app is free to use. Instruction will be provided on using both tools for class activities.)

CLASSROOM EXPECTATIONS:

While in my classroom, I expect students and myself to:

1. **Be ready to learn.** Students who are ready to learn are on time and prepared for class. They follow directions, stay focused on learning activities, adhere to all school rules, and maintain a positive attitude toward learning.
2. **Show respect for themselves, others, and the classroom environment.** Students who show respect use appropriate language and voice levels for the classroom, and they respect others' personal property, space, and privacy.
3. **Work hard.** Students who work hard remain on-task during learning activities, participate in activities and discussions, use technology appropriately for learning, and clean up after themselves.

According to [Linkedin](#), the top five skills that employers look for are **leadership, communication, problem-solving, work ethic**, and **teamwork**. We will develop each of these through our class structure:

- Most days we will be working in small groups on whiteboards around the room. After we debrief the problem(s) as a class, time will be given for notes and "check your understanding" problems.
- I will often ask students to explain their thinking or reasoning (verbally or written) to enhance their communications skills.
- In order to promote problem-solving skills and teamwork, I may not directly answer every student question. Instead, I will provide a question or suggestion to help a group move forward or provide an extension for students that are ready for more.

This is a ***thinking classroom***. Class time is almost always spent working with others to solve problems and figure out new mathematical relationships.

The following things will help you get the most out of class and help us build an awesome community:

- Stick with difficult things and look for opportunities to stretch and challenge yourself
- Take risks and share ideas, even when you're not sure that you're right
- Listen and build on others' ideas, poke holes in others' reasoning, include and support your peers, and appreciate your own and others' brilliance
- Come to class on time and with all materials, stay focused and productive during class

PERSONAL ELECTRONIC DEVICE POLICY: Our goal is to have students engaged in learning while they are present in school. Personal electronic devices are not allowed during the school day. Consequences are described below:

1st Offense	Detention
2nd Offense	1 Day ISS
3rd Offense	1 Day OSS

GRADING POLICY/PRACTICES: Students are encouraged to conference with the instructor at a mutually agreed upon time so they can discuss their academic strengths and needs. Assessments will be formative (evaluating academic needs) and summative (evaluating academic progress).

Major assessments: 60%

Minor assessments: 40%

LATE WORK POLICY:

Students will not be eligible for Credit Recovery or Content Recovery if MAJOR assignments are not completed within 10 days.

RE-DO/RE-TAKE/REVISION PROCEDURES:

Quizzes and tests are designed to check your understanding and provide feedback on your learning. If your quiz or test score does not demonstrate proficiency (i.e. 80% or below), you will be encouraged to make corrections and meet with your teacher AND/OR verified attendance of TROJAN Time for reteaching before taking a retest. Retests must be completed prior to the date of the next unit test. Because projects have extended timelines for completion and opportunities for feedback throughout the working timeline, projects are not automatically eligible for retaking or revision after the deadline. Extenuating circumstances will be considered on an individual basis.

GENERATIVE AI: This course may utilize generative AI tools, such as MagicSchool and Google Gemini, to supplement traditional instruction. Greenville County Schools prioritizes the ethical use of these technologies for brainstorming and self-guided learning.

Critical Thinking First: AI must not replace original thought or coursework.

Academic Integrity: Using AI to complete and submit assignments as original work constitutes plagiarism.

Required Citation: If teacher-approved, all AI use must be properly cited.

Content Awareness: Students must remain vigilant regarding potential biases and inaccuracies in AI-generated content.

Policy Compliance: All AI programs align with GCS Board Policy and Administrative Rule IA.

MagicSchool AI: This year, students will use MagicSchool AI, a generative AI platform designed specifically for education. As tools like ChatGPT and Gemini become standard in the professional world, utilizing MagicSchool prepares students for the future workforce by teaching safe and responsible technology use. Students will use these tools for real-time feedback and dynamic problem-solving. To ensure appropriate use, teachers retain access to all student chats. MagicSchool strictly protects privacy and does not collect or utilize student data. All AI software, including MagicSchool, complies with GCS Board Policy and Administrative Rule IA.