

# Wachusett Regional High School

**Program:** Mathematics

**Course Name:** Algebra I

**Teacher(s):** Ms. Thunberg

**Classroom:** C117

**Workroom:** C122

**Email:** lindsey\_thunberg@wrsd.net

## Course Description:

Algebra I is a foundation for all future math courses at the high school and college level. This course explores the many uses of Algebra in the real world. This course takes an informal approach assuming that the real number system exists and will conduct a systematic investigation of its properties. The course focuses on the principles and comprehension of algebraic expressions, linear equations & inequalities, polynomials, functions, systems of equations, and radicals.

**Prerequisite:** Knowledge of basic mathematics in terms of whole numbers, decimals, fractions, and percentages.

## Instructional Philosophy:

Students will work independently and in teams with other students, teachers or employers. Students will be expected to conduct research and use a variety of strategies to complete assignments and solve problems.

Students will:

- Become independent learners and analytical thinkers,
- Communicate effectively in written and verbal forms;
- Understand and apply concepts and skills,
- Realize the reasoning behind the steps required to complete assignments,
- Integrate academic and technical concepts,
- Find creative solutions to real-life problems, and
- Use technology responsibly to enhance learning.

Teachers will:

- Describe the skill and its purpose,
- Model the use of the skill,
- Guide student practice using assigned situations, and
- Encourage students to apply their skills in other new situations.

Student activities will include:

- Independent work
- Group work
- Lecture

## Topics to be Covered:

### Semester 1

#### Unit 1: Solving Linear Equations

- Solving Simple Equations
- Solving Multi-Step Equations
- Solving Equation with Variables on Both Sides
- Solving Absolute Value Equations
- Rewriting Equations and Formulas

#### Unit 2: Solving Linear Inequalities

- Writing and Graphing Inequalities
- Solving Inequalities Using Addition or Subtraction
- Solving Inequalities Using Multiplication or Division
- Solving Multi-Step Inequalities
- Solving Compound Inequalities
- Solving Absolute Value Inequalities

#### Unit 3: Graphing Linear Functions

- Functions
- Linear Functions
- Function Notation
- Graphing Linear Equations in Standard Form
- Graphing Linear Equations in Slope-Intercept Form
- Transformations of Graphs of Linear Functions
- Graphing Absolute Value Functions

#### Unit 4: Writing Linear Functions

- Writing Equations in Slope-Intercept Form
- Writing Equations in Point-Slope Form
- Writing Equations of Parallel and Perpendicular Lines
- Scatter Plots and Lines of Fit
- Analyzing Lines of Fit
- Arithmetic Sequences
- Piecewise Functions

### Semester 2

#### Unit 5: Solving Systems of Linear Equations

- Solving Systems by Graphing
- Solving Systems by Substitution
- Solving Systems by Elimination
- Solving Special Systems of Linear Equations
- Graphing Linear Inequalities in Two Variables
- Systems of Linear Inequalities

#### Unit 6: Exponential Functions & Sequences

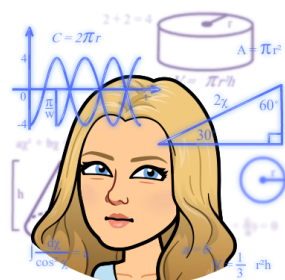
- Exponent Properties
- Radicals and Rational Exponents
- Exponential Functions
- Exponential Growth and Decay
- Solving Exponential Equations
- Geometric Sequences

#### Unit 7: Polynomial Equations & Factoring

- Naming Polynomials
- Adding and Subtracting Polynomials
- Multiplying Polynomials
- Special Products of Polynomials
- Solving Polynomial Equations in Factored Form
- Factoring Trinomials
- Factoring Special Products
- Factoring Polynomials Completely

#### Unit 8: Graphing Quadratic Functions

- Graphing Basic Quadratic Functions
- Graphing Shifts of Quadratic Functions



## **Class Rules:**

- NO CELL PHONES or other electronics in class unless asked to take out said device
  - Cell phones should be turned on silent & put in the phone cubby after homework and warm-up have been submitted to Google Classroom (5 minutes max)
  - No headphones/earbuds unless you have prior approval
  - Students have one “freebie” warning throughout the year for unsanctioned electronic usage during class time. Any subsequent incidents will result in a referral to the student's assistant principal for disciplinary action
    - I hold the right to keep your phone until the end of the day if you are using it
- Raise your hand before speaking
- No food or drink in class (except clear-colored water or a snack during snack period)
- No talking when the teacher is talking
- Come to class prepared to learn (pencils sharpened, laptops charged or plugged in...)

Respect the teacher. This includes, but is not limited to, listening to when the teacher is speaking or teaching, removing hats and hoods while in the building, speaking constructively and respectfully to the teacher, keeping phones put away during class, etc.

Respect your classmates. This includes, but is not limited to, refraining from talking or making noise during a lesson, refraining from bullying of any sort, working constructively with classmates in group work, refraining from eating or drinking a non-water beverage in class, leaving other's material alone, etc.

Respect yourselves. This includes, but is not limited to, arriving on time every day prepared for class, beginning work on the warm-up problems as soon as one is seated, taking thorough notes, completing all expected work, etc.

## **Communication:**

Check PowerSchool and Google Classroom daily. I update PowerSchool weekly and Google Classroom on an “As Needed” basis. It is your responsibility to track your grades and make sure the entered grades are accurate. Parents/guardians are also encouraged to check their student's PowerSchool account and Google Classroom periodically so as to be aware of their student's progress in class. Please do not hesitate to email with any questions or concerns, as that is the quickest and most convenient mode of communication for me.

If you are having difficulty in this class, disagree with a grade, or have any issues with me at all, please talk to me. If you are unsatisfied with the results of our discussion, then talk with a parent or guidance counselor.

If you were not able to complete your work on time because of mental health challenges, *please* speak to me about it. Homework is meant for practice to strengthen your skills, but I do not want it to act as a detriment to your mental well-being. If you are finding yourself in this situation or any other, open and honest communication is going to help both of us determine a good plan of action.

## **Textbook:**

The textbook we will be using this year is Big Ideas Math: Algebra 1 (*Available online through clever.com*). Instructions to sign up for this service are available at the end of the syllabus.

## **Technology:**

Some technology we will be using this year include:

- Google Classroom
- Khan Academy
- Delta Math
- EdPuzzle
- Desmos
- ...And Many More!!!

### Chromebooks:

All incoming students will have a Google Chromebook that will be used in a multitude of ways during the school year. Students are expected to bring their computer to school charged every day. The Chromebook will act as the student's main access point for email and Google Classroom. Students will also be asked to download classroom related applications.

You must have only the tabs or applications required for this class open during class. Doing work for other classes, playing games, social media use, etc. is strictly prohibited and will result in loss of the Chromebook for the class and a detention.

Homework is to be completed and brought to class the day after it is assigned. Check Google Classroom for assignments if you are absent. You have one day per absence to make up work. Please email or message me via Classroom if there's a reason something is late!

### Google Classroom:

Instead of keeping a website, students are asked to join a Google Classroom. Google Classroom is a virtual space where all class notes, classwork, homework, study guides, and announcements will be posted. It will act as one of the forms of communication between student and teacher. Students can feel free to download the Google Classroom App on both Android and iOS devices. Students can join their respective classes using the appropriate code below.

### Email:

Students receive a school email address (through Gmail), which will be the main form for direct student-teacher communication. Students are expected to check their email daily.

### Classroom Procedures:

1. All students will come to class on time and prepared with supplies to take notes, a charged Chromebook, and any assignments that are due.
2. Upon arrival, students will take out homework, work on the question of the day (found in a designated folder in the classroom), then take a picture of **homework** and **warm-up** and upload it into the day's Google Classroom posting.
3. Put your phone up in the phone pouch once complete (5 minutes max).
4. During class, students will focus on the contents of this class. Cell phones and other classwork will be put away, including other work on Chromebooks.
5. Students will wait until they receive permission to pack up at the end of class.

### Materials:

Students are expected to bring a **math binder/notebook** (can be virtual as well if Chromebook is brought daily), **math folder**, **pencil(s)**, **book**, and **computer/tablet** to class every day. Your Chromebook must be charged and ready to use every day. A **graphing or scientific calculator\*** is required for all students. Cell phones *will not* be allowed as calculators. If you are unable to provide a calculator for yourself, please email/speak to me. If you forget/don't have a calculator and have not spoken to me, you will have to do all computations by hand.

*\*Any scientific calculator is acceptable for Algebra 1, but I recommend that you invest in a calculator that will carry you through future math and science classes. The TI-83 Plus or TI-84 graphing calculators are both great calculators to own. I use a TI-84. The TI-30XIIS and TI-30XS are adequate calculators for about \$12-\$18.*

### Grading:

If you have extenuating circumstances prohibiting you from being able to complete the work in the allotted time frame, I ask that you either speak to me in person or send me an email letting me know the reason you were unable to complete the work in time, and depending on your circumstance, I will be willing to give you an extension. Students who fail to hand in assignments on time will receive a grade of "0" for the assignment.

If a student is absent, it is their responsibility to check Google Classroom for assignments. If a student had knowledge of an assignment prior to their absence, it is expected that it will be completed upon their return. If a student had knowledge of a test/quiz prior to their absence it is expected that it will be made up the day of their return. If a student is unaware of a test/quiz/homework assignment announced during their absence, then the student will be allowed two school days to complete the missed work. If the work is not completed after two school days, it automatically becomes a grade of "0". The student handbook will govern absences of two or more consecutive days. All long-term assignments must be handed in on the given due date; no exceptions will be given!

Your grade in this course will be composed of the two semesters. The first semester will be weighted as follows:

- 20% - First Quarter
- 20% - Second Quarter
- 10% - Midterm

With the second semester being weighted similarly:

- 20% - Third Quarter
- 20% - Fourth Quarter
- 10% - Final

#### Semester Grades:

Grading each quarter will be completed based upon a points system. Quarterly grades will be computed as follows: accumulated points divided by total points. Each quarter will consist of roughly 400 points. Please note that these are the points that will count toward each assignment per trimester.

Points (per assignment)	Criteria	Method
4	<p>Homework/Classwork</p> <p>Grading Breakdown:</p> <ul style="list-style-type: none"> <li>• 4 - It is clear that the student put a great deal of effort into completing the assignment. The solutions were accurate. The process used to solve each problem was complete and easy to follow.</li> <li>• 3 - Represented satisfactory work. The student may have lost a point due to incorrect solution(s), an incomplete assignment, not following directions, or a vague process.</li> <li>• 2-1 - Represents less than satisfactory work. The student either did not attempt the problem(s) or made little attempt to follow the homework procedures. No process was shown.</li> <li>• 0 - Missing: the student did not pass in the assignment.</li> </ul>	Independent and group work, warm-ups, extended learning assignments, Do Now, and classwork
15 - 25	Quizzes	Short assessments, math skills and concepts, and terminology
100	Tests/Projects	Projects, short answer and open response questions, and unit tests

### **Make-Up Work and Extra Help:**

Students are required to make up all work missed due to absence. All work not turned in on the day it is due will be entered in PowerSchool as a "0" and will be marked accordingly; "absent" if the student was absent, or "missing" if the student is in class and did not complete the assignment. Late homework will be accepted with the highest possible grade of 50% of the original possible score. Late work will be accepted no later than a week after it has been assigned.

If you are absent from class please come and see me for the missed work. **It is the responsibility of the student to take the initiative in making the arrangements to see teachers for make-up work.** I will supply you with the necessary material to help you catch up. If you feel that you need further assistance, please stay for extra help.

### **Accommodations:**

I am committed to creating a course that is inclusive in its design. If you encounter barriers, please let me know immediately so we can determine if there is a design adjustment that can be made. I am happy to consider creative solutions as long as they do not compromise the intent of the assessment or learning activity.

### **Attendance:**

Students are expected to participate in class. Attendance is required in each course and will be logged daily in Powerschool by the teacher. Live classroom sessions are mandatory for all students, except for absences as allowed by the school's attendance policy. Please have your parents communicate with the school if you will be absent. Please refer to the Student Handbook's attendance policy regarding absences. If a student is absent, it is their responsibility to check Google Classroom/email me for assignments. A "skip" during any graded work will result with a grade of "0".

### **Mission Statement:**

The Wachusett Regional School District seeks to ensure meaningful student growth and promote social-emotional wellbeing in a safe and nurturing environment. We will integrate the talent, experience, and knowledge of all members of our community to develop lifelong learners, equipped to think critically in an ever-changing, global society.

### **Academic Integrity:**

I generally have a zero-tolerance policy for cheating, and student(s) caught cheating will receive a "0" for the work. Students who collaborate with others in cheating, by allowing their papers to be copied or by other means, are subject to the same penalty. If you have any doubts or questions about what constitutes academic misconduct, please refer to the Student Handbook.

### **Zero Tolerance Policy:**

There is a zero-tolerance policy for discrimination against race, gender, disability, and sexuality in this classroom. Any comments, even if intended as humor, will be forwarded to the student's administrator and dealt with according to the student handbook.

## Syllabus Receipt Form:

Student's name (please print): \_\_\_\_\_

Course name: \_\_\_\_\_ Block: \_\_\_\_\_

The course syllabus provides the basic constitution of this math class. Ms. Thunberg expects all students to adhere to the expectations and classroom rules described and be aware of the grading policies and rubrics provided. Parents are encouraged to read this document and review it with their child to better support the student's progress in class.

Please provide your signatures to signify you have received the syllabus.  
Only one parent/guardian must sign. Thank you.

**Note:** Your contact information should be accessible through Powerschool. If you have an alternate address you'd rather use, please email me at [lindsey\\_thunberg@wrsd.net](mailto:lindsey_thunberg@wrsd.net) from that address so that I may save it to my contacts.

"I have received and read the Course Syllabus for Ms. Thunberg's math class."

Student's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Parent's/Guardian's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (please print): \_\_\_\_\_

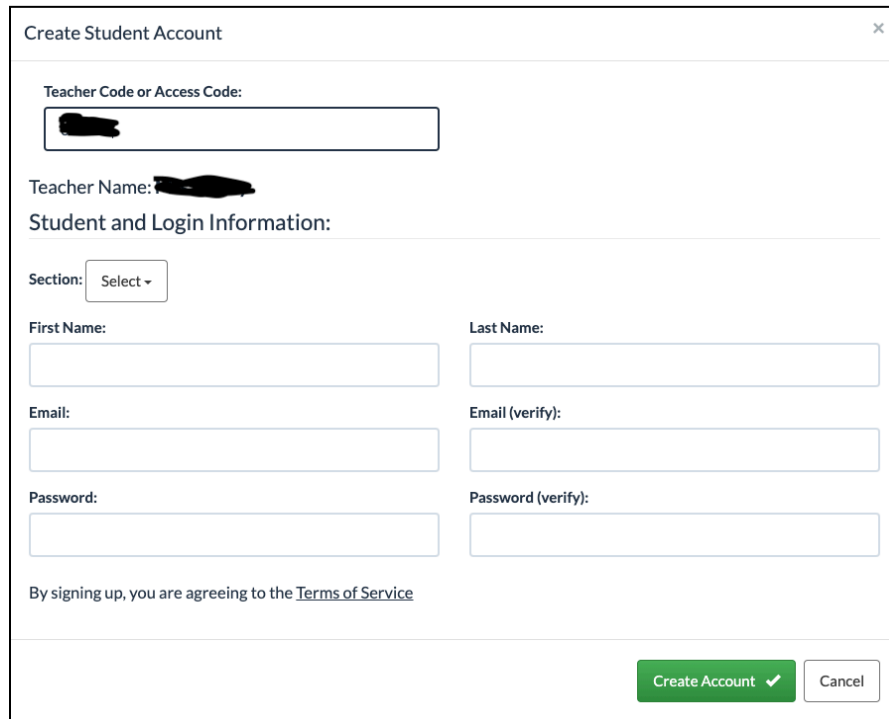
Parent's/Guardian's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name (please print): \_\_\_\_\_

## Sign up for DeltaMath:

### First Time Sign-In:

1. Go to [deltamath.com](https://deltamath.com)
2. Click CREATE ACCOUNT in upper right hand corner
3. Click STUDENT
4. Type in my class code: **531899**
5. When the following screen pops up, fill in the correct information and choose your correct block. Please use your school email and choose a password you will remember (maybe your student ID number)



The screenshot shows a web form titled "Create Student Account" with a close button (X) in the top right corner. The form contains the following fields and sections:

- Teacher Code or Access Code:** A text input field with a blacked-out placeholder.
- Teacher Name:** A text input field with a blacked-out placeholder.
- Student and Login Information:**
  - Section:** A dropdown menu currently showing "Select".
  - First Name:** A text input field.
  - Last Name:** A text input field.
  - Email:** A text input field.
  - Email (verify):** A text input field.
  - Password:** A text input field.
  - Password (verify):** A text input field.
- Terms of Service:** A link that says "By signing up, you are agreeing to the [Terms of Service](#)".
- Buttons:** A green "Create Account" button with a checkmark icon and a white "Cancel" button.

### Once You've Made an Account:

1. Go go [deltamath.com](https://deltamath.com)
2. Sign in with your username (school email) and password
3. If you forget your password, let me know and I will reset it for you

## Sign up for "Big Ideas Algebra I Textbook" Online:

1. Login to Clever using your Gmail/School email
2. Under WRSD, click BIG IDEAS MATH

WRSD (District)



Actively Learn



Big Ideas Math



CK-12  
Foundation



Code.org



MyHRW  
Teacher

\*You may need to log with Clever again?

3. At Dashboard screen, click eBook

### Dashboard

Welcome Shawn Chevette!

Class: Algebra 1 H - Chevette - 3

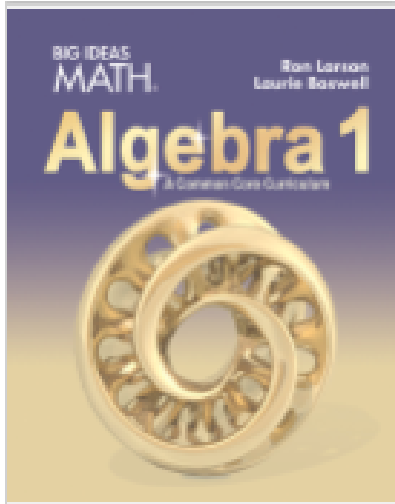
Featured Components







4. At Library screen, click this book



5. Finally, you can see the book at the top of the left margin (click CONTENTS for chapters & sections, or at the top middle, enter the page number)

To get answers to odd problems:

1. At the top of left margin, click CONTENTS
2. Scroll down to SELECTED ANSWERS

*I look forward to a productive, enjoyable year with you all!!!*

