

2026

Algebraic

2027

Reasoning

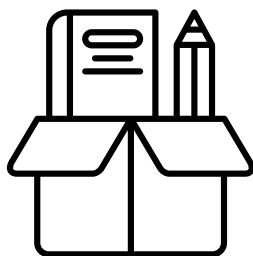
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About Algebraic Reasoning

At LDHS, this course is designed as a bridge between Algebra 1 and Algebra 2. We will be expanding upon Algebra 1 concepts and introducing some Algebra 2 concepts, using real world examples. All students can be successful. I will do everything I can to help each of you build a solid math foundation but I cannot do it alone. Students must do their part as well. The rest of this syllabus outlines what is expected of students in Algebraic Reasoning.

Materials



Pencil
Notebook Paper
Small binder or a folder with
brads

Tutorials

Tuesdays before school, 7-7:25
Wednesdays after school, 3:05-3:30
For other days, just ask!
Falcon Library Monday and Thursday,
3-5:30

Grades

Major: 40%

Minor: 60%

Test (Weight 2)

Daily Practice

Quiz (Weight 1)

Exit Ticket

Project Final Product

Skills Practice

(Weight 1)

Project Checkpoint

Contact Info

Preferred: Email or ParentSquare
Conference: 1:25-2:10
Responses within 24 hours M-F

Technology and Personal Devices

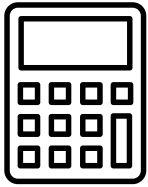
Students will be expected to leave their phone turned off and in their bags. Students will also not be permitted the use of earbuds, headphones, or smartwatches during class and must also remain off and in bags.

Any student who does not follow this policy will be subject to disciplinary action. This includes the improper use of math apps to cheat on assignments.

Late Work

We will follow Lake Dallas
ISD's late work policy.
All late work for each unit
is due by the end of the 9
weeks.

Calculators



While it is not required, students may purchase a calculator for home use if they prefer. Our class will use TI-84 Plus.

I also recommend an emulator app for the phone that students can use that has the same abilities as the TI-84 Plus

iPhone: Calculate84

Android: Calc84

iPad: ti84-online.com

Not having a calculator does not excuse you from the activities/quizzes/tests/homework.

Algebraic Reasoning Course Outline

Students will receive notes packets for each unit and are expected to keep up with these notes in order to study for summative assessments. Each lesson will have an assignment that is designed to be done in class; however, if a student does not finish this work during class, it is expected to be taken home and completed as homework.

Unit 0: Algebra Basics Review

- Vocabulary, calculator basics, solving equations

Unit 4: Matrices and Systems of Equations

Unit 5: Polynomials

Unit 1: Multi-Step Equations and Inequalities

Unit 6: Literal Equations and Inverses

Unit 2: Domain and Range

Unit 7: Data Modeling

Unit 3: All Things Functions

- Characteristics of graphs, identifying function types, transformations

Unit 8: Math in the Real World

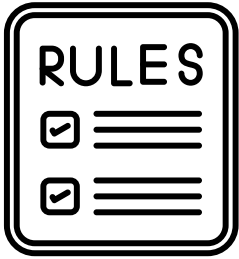
Students will also be expected to complete a weekly assignment that is designed to review skills necessary in all levels of high school math, including rounding and one and two-step equations. These assignments will also include skills from current and previous units so students are continually using the skills they are learning.

Retake Policy

If a student would like to retake a test or quiz, they must do the following before retesting will be allowed:

1. Have completed 100% of the practice for that unit and turned it in prior to unit test.
2. Attend an after school tutorial with Mrs. Guthrie where the student will review misunderstandings on the topic test. Corrections must be on a separate piece of paper including the problem, steps to solve and answer.
3. Bring in a teacher provided form signed by both the parent/guardian and student.
4. Retake must be taken prior to the next unit test.
5. Students will only be allowed to retake the test one time
6. Max grade on a retake is an 85, and student will keep whichever grade is highest (original vs. retake score)
7. Students may simply correct the test for a 70 if they prefer.

Expectations



Students will be expected to:

- Be respectful of their peers, their environments, and their instructor
- Take responsibility for their actions
- Always give their best effort
- Come to class prepared
- Be an active participant
- Celebrate mistakes! This means you are LEARNING!
- Maintain academic honesty and integrity

Other Expectations

Leaving the Classroom

Students must ask for permission to use the restroom or leave for any reason. It is strongly encouraged that the student waits until the lesson is finished, but as long as the privilege isn't abused, I am flexible.

Eating in Class

I allow food/drinks in class as long as any and all trash/spills are cleaned up. Failure to clean up after yourself will result in the entire class losing food privileges.

Consequences

If any classroom expectations are not met, the following steps will be taken

1. Redirect the student, review consequences, and contact parent/guardian
2. Give the student appropriate consequence, contact parent/guardian, document behavior
3. Contact the parent/guardian and submit an office referral

(per the Student Handbook, some offenses may require me to skip straight to office referral)

I give my students opportunities to make corrections of behaviors on their own at first, but if there is no improvement, I will ask parents/guardians to assist.

Classroom Routine

The typical routine in the classroom will be as follows (excluding test days):

1. Students enter the classroom, head to their seats, and ready materials. This is also the time for students to turn in any assignments due.
2. Students will begin on the day's warm-up
3. Once the tardy bell rings, students will be given a notice of remaining time to complete the bellwork, no more than 5 minutes.
4. We will then begin the lesson, usually concluding with an exit ticket. Some classes will end with a full assignment rather than an exit ticket that will need to be taken home as homework if it is not finished in class.
5. At the end of the class at the teacher's direction, students will be expected to quietly pack up and remain in their seats until the bell rings.

Algebraic Reasoning Full First Semester Outline

Unit 0: Algebra Basics Review

- TEKS: AR.1B, AR.1C, AR.1D
- Learning objectives: graphing basics, math vocabulary, calculator basics, one and two-step equations
- Activities: practice problems, vocabulary & coordinate plane quiz, test, calculator scavenger hunt

Unit 1: Multi-Step Equations and Inequalities

- TEKS: AR.6B
- Learning objectives: solve multi-step equations and inequalities, graph inequalities, formulate and solve inequalities and equations in context
- Activities: practice problems, skills practice, test

Unit 2: Domain and Range

- TEKS: AR.7A, AR.7B
- Learning objectives: determine domain and range from a set of values and a graph, compare mathematical and in context domain and range
- Activities: practice problems, group work, skills practice, test

Unit 3: All Things Functions

- TEKS: AR.2B, AR.3A, AR.6A
- Learning objectives: identify functions and function types, evaluate functions, graph functions, transform functions
- Activities: practice problems, skills practice, marbleslides, skills practice, quizzes, test

Unit 4: Matrices and Systems of Equations

- TEKS: AR.5A, AR.5B, AR.5C, AR.5D, AR.5E
- Learning objectives: add, subtract, and multiply matrices, use matrices to solve systems of equations, formulate systems of equations, solve systems in context
- Activities: practice problems, skills practice, test