Algebra One

Course Description

8th Grade Algebra One focuses largely on solving, graphing, writing, and interpreting various types of functions. A few of the most significant topics include; linear functions, exponential functions, quadratic functions, and statistics. Students will progress through 12 chapters in Algebra One.

Instructor:

Kristen Dillon
Room 53
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Course Materials Required:
- *Binder*
- *Tab Dividers*
- *Pencils*
- *Chromebook*

Learning Activities
- *Pre-Tests*
- *Unit Quizzes*
- *Homework Quizzes*
- *Activities and Games*
- *Mini-Projects (only certain units)*
- *Post-Test*

Learning Outcomes
- Students will be able to solve equations/inequalities in one/two variables
- Students will be able to identify and compare key features of graphs given in various representations
- Students will be able to graph, interpret, and write functions (linear, exponential, or quadratic)
- Students will collect, sort, and analyze data
- Students will be able to solve quadratic equations using various methods for the x-intercepts.

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Course Outline

Unit	Approximate Time Frame	Topics	Student Activities
Unit 1	Q1: 3 weeks	● Solving Equations/Inequalities	● Literal Equations Puzzle
Unit 2	Q1: 3 weeks	● Key Features of Graphs	● Rollercoaster Features ● Key Features Museum
Unit 3	Q1/2: 3 weeks	● Linear Functions	● Sequence Hand-Offs ● Fibonacci Sequences ● Pokemon Project ● Exploring Gravity - Part I
Unit 4	Q2: 3 weeks	● Systems of Equations	● Scavenger Hunt
Unit 5	Q2: 2 weeks	● Statistics	● Data Collection ● Class Height & Trends
Unit 6	Q2: 1 weeks	● Exponential Functions	● (Not so) Radioactive Skittles ● Who Like's Money (Compound Interest)
Unit 7	Q3: 2 weeks	● Comparing Functions	● Exploring Gravity - Part II
Unit 8	Q3: 2 weeks	● Exponent Rules & Polynomials	● Exponent Relay Races
Unit 9	Q3: 2 weeks	● Graphing Quadratic Functions	●
Unit 10	Q3/4: 4 weeks	● Solving Quadratic Equations	● Algebra Tiles ● Factoring Quadratics ● Exploring the imaginary number system ● Angry Birds Project
Unit 11	Q4: 1 weeks	● Comparing Functions - Part II	● Comparing Functions Around the Room
Unit 12	Q4: 2 weeks	● Non-Linear Parent Functions	● Creating Pictures with Piecewise Functions

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Major Course Assignments/Assessments
Each unit will consist of the following major assignments and assessments:
- *Pre-Test (not included in grade book)*
- *Unit Quizzes (1 or 2, depending on length of unit)*
- *Post-Test*

Each quarter, 2 binder quizzes are given (this is an organizational grade)

Grading Procedures:
- *Homework quizzes are given/graded on a daily basis.*
  - *Each quarter, the 2 lowest scores will be dropped from their grade.*
- *Unit quizzes and binder quizzes are graded based on total points.*
- *ALL Unit tests are graded out of 100 points.*

Grades will be determined by the following category weights:

Category	Percentage
Unit Pre-Tests	*0%*
Homework Quizzes	*20%*
Unit/Binder Quizzes	*30%*
Unit Post-Tests	*50%*

Grading Scale:

Letter Grade	Range
A	100-90
B	89.99-80
C	79.99-70
D	69.99-60
F	59.99-below

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Absences/Make-up Work:

Students who are absent from school will be allowed to make up work for equivalent academic credit. The time allowed to makeup work will generally be one school day for every school day missed, starting with the first day the student returns to school. In extenuating circumstances a student may ask his/her teacher for additional time to make up work. It is the responsibility of the student (and his/her parent/guardian), not the teachers, to get the assignments, complete them, and turn them in, and to arrange a time with the teacher to make up any missed quizzes or tests. Incomplete work or failure to complete missing work may result in poor grades.

Timeframe for makeup work:
- Students will take the missed homework quiz the day they return.
- Students will complete the homework assignment they missed in full and turn it into the teacher no later than two days from the day they return. *Students will not take a homework quiz on material missed because of an absence.*

Procedure to follow to receive and submit makeup work:
1. *Student will log into Canvas and go to date missed*
2. *Student will take the homework quiz*
3. *Student will get the handouts and homework assignment missed from teacher*
3. *Student will complete the homework assignment in full*
4. *Student will turn the assignment in no later than 2 days after the date of return*

Technology Policy

The District's electronic networks, including the Internet, are part of the District's instructional program and serve to promote educational excellence by facilitating resource sharing, innovation, and communication. Use of all electronic devices allowed as part of the District's Bring Your Own Device ("BYOD") program and the District issued Chromebook must be consistent with District policies and procedures. Such electronic devices may be used during instructional time only for educational purposes as approved by the Administration or teacher. Personal devices may be used by students during non-instructional time, such as during passing periods, and before or after school. Students may not place or receive phone calls during school day hours (8:12am to 2:50pm). Use is a privilege, not a right. Students and staff members have no expectation of privacy in any material that is stored, transmitted, accessed via the District's electronic networks. The District's rules for behavior and communications apply when using the electronic networks. Refer to the Chromebook Handbook issued by the district.

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Specific technology guidelines for Ms. Dillon's room

Students may not use cell phones during class, and they are expected to bring their Chromebook to class every day.

Academic Integrity:

Students engaging in academic dishonesty, including cheating, intentionally plagiarizing, wrongfully giving or receiving help during an academic examination, altering report cards, and wrongfully obtaining test copies or scores will be held to the standards of the 17-18 CMS Plagiarism Policy.

Plagiarism/Cheating

Using someone else's ideas, phrasing or words and representing those as your own, either on purpose or through carelessness, is plagiarism. This is the same as "copying" the ideas of someone else. This includes, but is not limited to: copying from the Internet, copying from a reference source, copying from a friend, etc. Plagiarism can encompass an entire paper, a paragraph, a sentence, or even just one word. Any work that is turned in and is found to have been plagiarized will be disciplined as follows:

· All daily work, classwork, homework, and quizzes will result in a zero

· For large/unit assessments and projects:

· 1st offense-Conference with the teacher with the option to redo the project/assessment for 50% off

· 2nd offense– Conference with the teacher, parental contact, and a zero on the project/assessment

All subsequent offenses will result in a mandatory conference with the student, teacher, principal or student service coordinator. Consequences will be handled on a case by case basis.

*Syllabus subject to change at any time