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|  | Mathematics Department  Scope and Sequence  Course title: Algebra 1 |
| **Description:** | Algebra I is a tool building class that helps students prepare for more advanced mathematics courses. Algebra I concepts, such as solving various types of equations and simplifying expressions, are basic to the high school math curriculum; therefore they are tested heavily as part of the Idaho State Achievement Test (ISAT) |
| **Book:** | Glencoe Algebra 1, Glencoe McGraw-Hill (ISBN 978-0-07-663923-6) Authors John A. Carter, Gilbert J. Cuevas, Roger Day, and Carol Malloy. Copyright 2014 by McGraw-Hill Education, 8787 Orion Place, Columbus, Ohio 43240-4027 |
| **Prerequisites:** | Completion of Math 8 or Basic Algebra with a “C” grade or better. |
| **Course Objectives:** | * Apply and demonstrate the different way numbers are represented and used in the real world * Select appropriate operations, and compute for problem solving * Write and solve single and multi-step equations including real-world applications * Use rates and ratios to model and solve real-life problems * Articulate under what conditions a relation is a function * Describe, analyze, and generalize a wide variety of patterns, relations, and functions * Display representations of a functions (equations, graphs, and tables) * Connect representations of a function in a real world context and communicate mathematical thinking * Solve systems of equations using various methods * Use inequalities in an applied application to solve/evaluate real world data * Identify, graph and analyze an exponential growth and decay function * Apply various types of factoring methods to solve real-world problems * Graph, analyze and solve quadratic equations * Find probabilities of simple and compound events * Analyze, create, display and interpret data using statistical methods |
| **Course Length:** | This is a two trimester Course |

Mathematics Department

Scope and Sequence

Course Title: Algebra 1



**Course Outline:**

* **Trimester 1**

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Chapter 1** | | **Chapter 2** | **Chapter 3** | **Chapter 4** | | **Chapter 5** | **Chapter 6** |
| Expressions, Equations and Functions | | Linear Equations | Linear Functions | Equations of Linear Functions | | Linear Inequalities | Systems of Linear Equations and Inequalities |
| Days | | Days | Days | Days | | Days | Days |
| 8 | | 9 | 6 | 8 | | 8 | 8 |
|  | |  |  |  | |  |  |
| A.SSE.1  A.SSE.2  N.Q. 3  A.CED.1  A.CED.2  A.REI.3 | A.REI.10  F.IF.1  F.IF.2  F.IF.4 | A.CED.1  A.CED.4  A.REI.1  A.REI.3  N.Q. 1  N.Q. 2  F-IF.1  F-IF.2 | F.IF.4  F.IF.6  F.IF.7  F.LE.1  F.LE.2  F.BF.2  A.REI.10 | A.CED.2  F.IF.2  F.IF.7  F.BF.1  F.BF.3  F.BF.4 | F.LE.2  S-ID.6  S-ID.7  S-ID.8  S-ID.9 | A.CED.1  A.CED.3  A.REI.3  A.REI.12 | A.CED.2  A.CED.3  A.REI.5  A.REI.6  A.REI.11  A.REI.12 |

* **Trimester 2**

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| **Chapter 7** | | **Chapter 8** | **Chapter 9** | | **Chapter 10** | **Chapter 11** | **Chapter 12** |
| **Exponents and Exponential Functions** | | **Quadratic Expressions and Equations** | **Quadratic Functions and Equations** | | **Radical Functions and Geometry** | **Rational Functions and Equations** | **Statistics And Probability** |
|  | |  |  | |  |  |  |
| Days | | Days | *Days* | | Days | Days | Days |
| 8 | | 9 | *9* | | 7 | 9 | 10 |
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| A.SSE.2  A.SSE.3  F.IF.3  F.IF.6  F.IF7  F.IF.8 | N.RN.1  N.RN.2  F.LE.1  F.LE.2  F.BF.2  F.BF.3 | A.APR.1  A.SSE.1  A.SSE.2  A.SSE.3  A.REI.1  A.REI.4 | *F.IF.4*  *F.IF.6*  *F.IF.7*  *F.IF.8*  *A.REI.4* | *A.REI.7*  *F.BF.3*  *S.ID.6*  *F.LE.1* | F.BF.4  F.IF.4  F.IF.7  A.REI.4  N.RN.2  N.RN.3  A.CED.2 | A.CED.2  A.REI.11 | S.ID.2  S.ID.3  S.ID.5 |

**Grades:**

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| Grades are calculated based on the following weighting:  Tests and Quizzes: 65%  Assignments: 35% | Trimester Grades are based on the Madison High School grade scale shown below:  A 94-100% C 73-76%  A- 90-93% C- 70-72%  B+ 87-89% D+ 67-69%  B 83-86% D 63-66%  B- 80-82% D- 60-62%  C+ 77-79% F Below 60% |