

Week 1

**Session 1 – Algebra Fundamentals**

**Review/Warmup**

[Diagnostic Quiz Select Problems](#)

**[Teaching Material](#)**

Variables and Expressions

Like Terms

Equivalent expressions, /0

**Student Exercises + Homework**

[Evaluating expressions](#)

[Matching Expressions](#)

[Extra: Khan Unit Test](#)

**Session 2 – Basic Equations / Inequalities**

**Review/Warmup**

[Review Worksheet](#)

**[Teaching Material](#)**

Solving Equations

Compound Inequalities

Multi-Step Inequalities

**Student Exercises + Homework**

[Comprehensive Worksheet](#)

Week 2

**Session 1 – Rates/Units, Graphing Linear Equations**

**Review/Warmup**

[Review Worksheet](#)

**[Teaching Material](#)**

Dimensional analysis, rates/units

Two-Variable linear equations

Slope, intercepts, word problems

**Student Exercises + Homework**

[Practice Worksheet](#)

[Slope Worksheet](#)

**Session 2 – More work with linear equations**

**Review/Warmup**

[Review Worksheet](#)

**[Teaching Material](#)**

Slope Intercept

Point-Slope

Standard Form

**Student Exercises + Homework**

[Slope-Intercept Point-Slope](#)

[Word Problems](#)

[Graphing/Conversion from Standard](#)

Week 3

## Session 1 – Systems of Equations

**Review/Warmup**

[Review Worksheet](#)

**[Teaching Material](#)**

Intro to Concept

Solving with  
Graphing

Solving with  
Substitution

**Student Exercises +  
Homework**

[Solving Systems  
Graphing/Sub](#)

[Creating Systems  
from context](#)

## Session 2 – More Systems, Graphing Inequalities

**Review/Warmup**

[Review Worksheet](#)

**Teaching Material**

Elimination

Solution Strategies

Graphing Inequalities

**Student Exercises +  
Homework**

[Elimination Worksheet](#)

[Finish S1 Worksheet](#)

[Inequalities  
Worksheet](#)

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## Week 4

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## Session 1 – Functions (Defining, Evaluating, Notation)

**Review/Warmup**

[Review Worksheet](#)

**[Teaching Material](#)**

Introduction to functions

Evaluating function from  
graph

Functions in  
context

**Student Exercises +  
Homework**

[Function notation](#)

[Word problems](#)

## Session 2 – Functions (Domain, Range, Open/Closed Intervals)

**Review/Warmup**

[Review worksheet](#)

**[Teaching Material](#)**

[Domain and Range](#)

Features of functions  
and rate of change

Inverse functions

**Student Exercises +  
Homework**

[Interval Problem w/  
Answers](#)

[Rate of Change \(select  
problems\)](#)

[Inverse functions](#)

Lesson plans will likely be created month-to-month and will be adjusted as necessary. Weeks 5, 6, and 7 will cover sequences, piecewise functions, exponential

growth/decay, quadratics, and factoring to finish out algebra 1.

We aim for mastery of the topics, and the lesson plan may seem a bit intensive, but this ensures a solid foundation is built for next year's learning, or that no holes are left in the lessons from the previous year. We hope that through work with our tutors, the student can learn the habits, study-skills, and utilization of online resources necessary to have success in all levels of schooling.