# Algebra 1

## Week 1: 8/28-9/1

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## First Day of School

**LO:** SWBAT familiarize themselves with classroom procedures and guiding principles.

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**TEKS:** ALGI.3C Graph linear functions on the coordinate plane and **identify** key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems.

**LO:** SWBAT **read** descriptions of relationships between two quantities and **identify** which is independent and which is dependent.

**DOL:** Given problem scenarios, students will **read** and **identify** the independent and dependent quantities.

## AGENDA

| Engage: What comes first? Identify independent and dependent variables. | 15 minutes |
| Develop: Activity 1.1: Connecting Scenarios and their Graphs | 30 minutes |

## KEY WORDS

- Independent quantity
- Independent quantity
- Domain
- Range
**TEKS: ALGI.7A** Graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including, $x$-intercept, $y$-intercept, zeros, maximum value, minimum value, vertex, and the equation of the axis of symmetry.

**LO:** SWBAT **identify** key characteristics of graphs such as intercepts, increasing and decreasing intervals, and maximum and minimum points.

**DOL:** Given various graphs, students will **identify** key features and similarities.

| Engage: | 1. Review vocabulary  
|         | 2. Warm-Up - Discuss scenarios and identify independent and dependent variable | 10 minutes |
| Develop: Activity 1.2: Comparing and Contrasting Graphs | 40 minutes |
| Extension: Talk the Talk  
| A Writer and a Mathematician | 20 minutes |
| Explore MATHIA/Assignment | 20 minutes |

**VOCABULARY**

- Increase
- Decrease
- Straight
- Curved
- Maximum
- Minimum
TEKS: **ALGI.3C** Graph linear functions on the coordinate plane and **identify** key features, including x-intercept, y-intercept, zeros, and slope, in mathematical and real-world problems.

**LO:** SWBAT **identify** key characteristics of the graphs by sorting graphs into different categories.

**DOL:** Given a set of graphs, students will **identify** key characteristics.

| Engage: Getting Started: Let’s Sort Some Graphs | 15 minutes |
| Develop: Activity 2.1 – Identifying Graphical Behaviors | 30 minutes |

**VOCABULARY**

- Axis of symmetry
- Horizontal
- Vertical
- Linear