MA 3215 : Pre-Algebra

Pre-Algebra is a course for sixth grade students who exhibit high mathematical ability and achievement and is designed to prepare students for Algebra I Honors in grade 7. The course focuses on the development of problem-solving skills and the acquisition of mathematical vocabulary and symbols. The active engagement of students along with the use of manipulatives (i.e. number lines, fractions circles, algebra tiles, and two-color counters) and technology, such as the Desmos calculator and Chromebooks, will allow students to develop an understanding of the mathematical principles they are learning. Facility in the use of technology will not be a substitute for students' understanding of quantitative concepts and proficiency in basic computations.

Subject Area
Mathematics
Level
Middle School
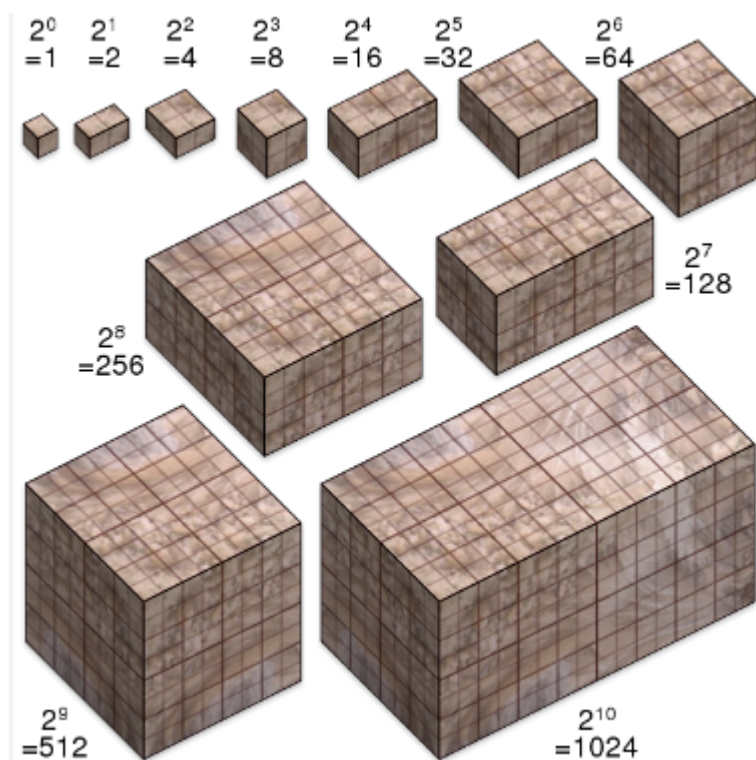**Parent Docs**
Pre-Algebra Parent Doc 2021-2022
Storyboard
Essential Questions: How do I become a mathematical problem solver to better understand the world around me? In what ways can I communicate and represent my mathematical thinking?

Number Sense: Neverending Numbers

Units 1 & 2 (8 weeks)

Patterns & Functions: Where's the Line?

Unit 3 (5 weeks)

Pacing

How do I use mathematics on a daily basis?

Focus of the Story

We begin our journey by becoming an effective mathematician through building number sense and computational skills of integers, as well as developing an understanding of exponents, perfect squares and scientific notation.

Transfer Goals

- Apply: Utilize efficient strategies, processes, and tools to model new situations and/or real world experiences.
- Explain: Communicate mathematical thinking by justifying solutions using multiple representations while attending to precision.

I can represent and perform all operations with integers in practical situations.

I can classify, describe, and illustrate the relationships between the subsets of the real number system.

Learning Targets

I can represent and compare real numbers written in various forms.

I can identify, determine, and estimate positive or negative square roots.

I can simplify expressions.

How do I use mathematical relationships to make predictions?

Next, we utilize number sense and computational skills to investigate ar relationships in the world around us. We build on our understanding of p the steepness of a line (slope) and the *y*-intercept as it is illustrated in ar graph. We also identify the domain and range of functions.

- Explain: Communicate mathematical thinking by justifying soluti attending to precision.

I can identify and represent proportional relationships.

I can determine and use the unit rate to find the missing values of a prop

I can make connections between and among representations of proport and linear functions in different forms.

I can determine if a relation is a function and identify the domain and ran