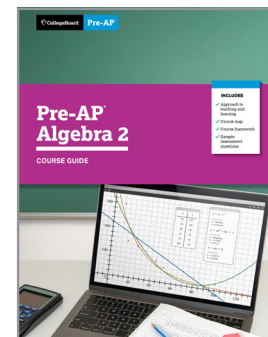


Pre-AP Algebra 2 and Colorado Academic Standards: Mathematics: Alignment Summary

Pre-AP courses focus deeply on a limited number of concepts and skills with the broadest relevance for high school coursework and college and career success. The course framework serves as the foundation of the course and defines these prioritized concepts and skills.

When teaching a Pre-AP course, teachers have purposeful time and space to bring their own voice and lessons into each unit to best meet the needs of their students and address the full range of state standards. This alignment summary demonstrates the deep connections between the Pre-AP Algebra 2 Course Framework and the Colorado Academic Standards: Mathematics to support teachers and schools in their planning. Along with the corresponding standards crosswalk, teachers and schools can use this alignment summary when planning and preparing to implement Pre-AP Algebra 2.



Alignment at a Glance: Very Strong

Colorado Academic Standards: Mathematics



- The Complex Number System
- Interpreting Functions
- Building Functions
- Trigonometric Functions
- Linear, Quadratic & Exponential Models

Discipline Highlights

- ✓ Overall, the alignment between the Pre-AP Algebra 2 Course Framework and the Colorado Academic Standards: Mathematics is very strong.
- ✓ Across nine of the twelve grade level expectations for the Colorado Academic Standards: Mathematics, the majority of the standards are addressed in full or in part by the Pre-AP Algebra 2 Course Framework.
- ✓ The deepest alignments to the Colorado Academic Standards: Mathematics are in The Complex Number System, Interpreting Functions, Building Functions, and Trigonometric Functions.



= **Very strong alignment**



= **Partial alignment**

Alignment between the Pre-AP Algebra 2 Course Framework and the Colorado Academic Standards: Mathematics is described as *very strong* or *partial*. A *very strong* alignment is one in which the majority of standards are fully addressed by the mapped Pre-AP Learning Objectives (LOs). A *partial* alignment is one in which the standards are partially addressed by the corresponding Pre-AP Learning Objectives. Partial alignment can occur when one framework includes greater specificity or extends beyond the scope of the other framework. Given the focused nature of the Pre-AP course framework, some partial alignments are to be expected.

Alignment at a Glance: Partial

Colorado Academic Standards: Mathematics



- Arithmetic with Polynomials & Rational Expressions
- Seeing Structure in Expressions
- Creating Equations
- Reasoning with Equations and Inequalities

Discipline Highlights



While the overall alignment between the Colorado Academic Standards: Mathematics and the Pre-AP Algebra 2 Course Framework is very strong, there are a few areas of partial alignment due to differences in the level of specificity in certain areas.



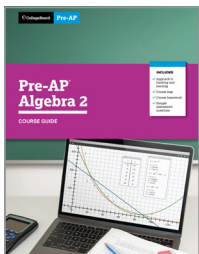
The Pre-AP Algebra 2 Course Framework is intentionally focused on functions as a prioritized set of concepts. Therefore, certain topics fall outside the scope of the Pre-AP Algebra 2 Course Framework. For example, standards HS.A-APR.A.1 and HS.A-APR.D.7 in Arithmetic with Polynomials & Rational Expressions refer to performing addition, subtraction, multiplication, and division with polynomial and rational expressions. While this is an important algebraic skill, it is not included in the Pre-AP Algebra 2 Course Framework as it does not closely tie to polynomial or rational function behavior.



Though not addressed in Pre-AP Algebra 2, all competencies in the grade level expectations of Interpreting Categorical & Quantitative Data, Making Inferences and Justifying Conclusions, and Using Probability to Make Decisions are covered in depth in Pre-AP Geometry with Statistics.

Summary

Beyond alignments to the course framework, it is also important for educators to turn to the Pre-AP Shared Principles and Pre-AP Mathematics Areas of Focus to understand the full picture of alignment between Pre-AP Algebra 2 and the Colorado Academic Standards: Mathematics. The shared principles and areas of focus represent the Pre-AP approach to teaching and learning, and these principles deeply address skill development and disciplinary practices that cannot be easily captured within a standards crosswalk. **In summary, there are ample opportunities for teachers to address the Colorado Academic Standards: Mathematics with confidence throughout this course.**



Learn more about Pre-AP Algebra 2 at preap.org