Pre-AP Algebra 1 and the Pennsylvania Core Standards for 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 1 Course Framework and the Pennsylvania Core Standards for 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 1.

Alignment at a Glance: Very Strong

Pennsylvania Core Standards for Mathematics:

- Equations and Inequalities
- Patterns, Relations, and Functions

Discipline Highlights

- Overall, the alignment between the Pre-AP Algebra 1 Course Framework and the Pennsylvania Core Standards for Mathematics is very strong.

- Across all concepts of the Pennsylvania Core Standards for Mathematics, the majority of the standards are addressed in part or in full by the Pre-AP framework.

- The Pennsylvania Core Standards for Mathematics and the Pre-AP framework show the deepest alignment with the Equations and Inequalities and Patterns, Relations, and Functions concepts.

Alignment between the Pre-AP Algebra 1 Course Framework and the Pennsylvania Core Standards for 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

Pennsylvania Core Standards for Mathematics:
- Rational and Irrational Numbers
- Polynomial and Rational Expressions
- Categorical and Quantitative Data
- Probability

Discipline Highlights

- While the overall alignment between the Pennsylvania Core Standards for Mathematics and the Pre-AP Algebra 1 framework is very strong, there are a few areas of partial alignment due to the more granular nature of some of the Pennsylvania Core Standards for Mathematics.

- Pre-AP has a more intentionally narrow focus on a prioritized set of concepts, so certain topics are considered outside of the scope of the Pre-AP course and not essential. For example, CC.2.2.HS.D.5 focuses on using polynomial identities to solve problems. This topic is often addressed in Algebra 2 courses, so it was not chosen as a focus topic for Pre-AP Algebra 1.

- Standards related to statistics and probability that appear in the Pennsylvania Core Standards for Mathematics are covered in greater 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 1 and the Pennsylvania Core Standards for 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 Pennsylvania Core Standards for Mathematics with confidence throughout this course.

Learn more about Pre-AP Algebra 1 at preap.org