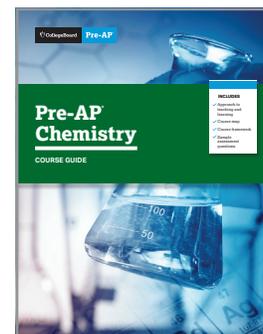


Pre-AP Chemistry and Next Generation Science Standards: High School Physical Sciences: Alignment Summary

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 Chemistry Course Framework and the Next Generation Science Standards: High School Physical Sciences 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 Chemistry.



Alignment at a Glance: Very Strong

NGSS Physical Sciences:



• Matter and Its Interactions

HS-PS1-1
HS-PS1-2
HS-PS1-3
HS-PS1-4
HS-PS1-5
HS-PS1-7

• Energy

HS-PS3-1
HS-PS3-4

Discipline Highlights



Overall, the alignment between the Pre-AP Chemistry Course Framework and the NGSS Physical Sciences is very strong.



Across both strands of the NGSS Physical Sciences, the majority of the standards are addressed in full by the Pre-AP framework.



The NGSS Physical Sciences and the Pre-AP framework share the deepest alignment within the Matter and Its Interactions content strand, especially for key topics such as atomic structure, chemical reactions, and conservation of mass.



= **Very strong alignment**



= **Partial alignment**

Alignment between the Pre-AP Chemistry Course Framework and the NGSS Physical Sciences is described as *very strong* or *partial*. A *very strong* alignment is one in which the 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.

Discipline Highlights



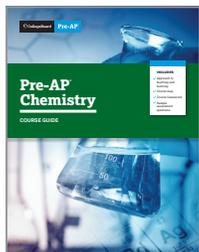
While the overall alignment between the NGSS Physical Sciences and the Pre-AP Chemistry framework is strong, there are some expected areas of partial alignment or gaps in alignment due to the more granular nature of some of the NGSS Physical Sciences Standards.



The Pre-AP course framework 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. For example, HS-PS1-8 in the NGSS Physical Sciences, which addresses nuclear reactions, is not included with the Pre-AP framework.

Summary

Beyond alignments to the course framework, it is also important for educators to turn to the Pre-AP Shared Principles and Pre-AP Chemistry Areas of Focus to understand the full picture of alignment between Pre-AP Chemistry and the NGSS Physical Sciences. 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 NGSS Physical Sciences Standards with confidence throughout this course.**



Learn more about Pre-AP Chemistry at
preap.org