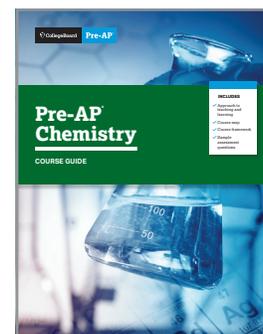




# Pre-AP Chemistry Course Framework and New York P–12: Science Learning Standards: Alignment Summary

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 New York P–12 Science Learning Standards 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

### New York Science Learning Standards:



- Chemical Reactions
- Structure and Properties of Matter

### Discipline Highlights

- ✓ Overall, the alignment between the Pre-AP Chemistry Course Framework and the New York Science Learning Standards is very strong.
- ✓ Across all six strands of the New York Science Learning Standards, the majority of standards are addressed in full or in part by the Pre-AP course framework.
- ✓ The New York Science Learning Standards and the Pre-AP course framework share the deepest alignment within the Chemical Reactions and Structure and Properties of Matter content strands.



= **Very strong alignment**



= **Partial alignment**

Alignment between the Pre-AP Chemistry Course Framework and the New York Science Learning Standards is described as *very strong* or *partial*. A *very strong* alignment is one in which the majority of 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.

# Alignment at a Glance: Partial

## New York Science Learning Standards:



- Energy
- Engineering Design
- Matter and Energy in Organisms
- Waves and Electromagnetic Radiation

## Discipline Highlights



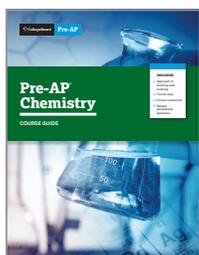
While the overall alignment between the New York Science Learning Standards and the Pre-AP Chemistry Course Framework is very strong, there are a few areas of partial alignment due to the more granular nature of some of the New York Science Learning Standards. For example, PS-2.6 is about the connection between atomic-level electrostatic interactions and macroscopic properties, which is addressed in Pre-AP. However, the standard specifically includes the study of designed materials, which are not explicitly part of the Pre-AP curriculum, so the alignment is listed as Partial. But the Pre-AP lessons provide ample opportunities for extensions that discuss designed materials within the context of this content.



The New York Science Learning Standards include topics about engineering design, matter and energy in organisms, waves, and electromagnetic radiation that are not directly addressed by the Pre-AP framework. As a result, these areas show little or no alignment. Despite the lack of an explicit match, however, these topics can be addressed using several compelling examples while teaching the Pre-AP Chemistry LOs and EKs.

## Summary

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



Learn more about Pre-AP Chemistry at [preap.org](https://preap.org)