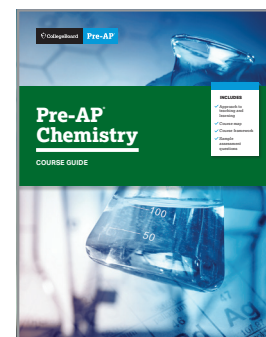




Pre-AP Chemistry and Minnesota Academic Standards in Science: Alignment Summary

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 Minnesota Academic Standards in Science 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

Minnesota Academic Standards in Science:



• Physical Science

2.1.1.1	2.1.3.3
2.1.1.2	2.1.3.4
2.1.2.1	2.1.3.5
2.1.2.3	2.1.4.1
2.1.2.4	2.1.4.2
2.1.3.2	

Discipline Highlights

- Overall, the alignment between the Pre-AP Chemistry Course Framework and the Minnesota Academic Standards in Science is very strong.
- The majority of the standards within the Matter substrand of the Physical Science content strand are covered in full or in part by the Pre-AP framework.
- The Pre-AP Chemistry Course Framework addresses additional topics beyond the requirements of the Minnesota Academic Standards in Science. These topics include density, molecular geometry, and heat of reaction.



= **Very strong alignment**



= **Partial alignment**

Alignment between the Pre-AP Chemistry Course Framework and the Minnesota Academic Standards in Science 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

Minnesota Academic Standards in Science:



• Physical Science

2.1.2.2	2.1.2.7
2.1.2.5	2.1.3.1
2.1.2.6	2.1.3.6

Discipline Highlights



While the overall alignment between the Minnesota Academic Standards in Science 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 Minnesota Academic Standards in Science.



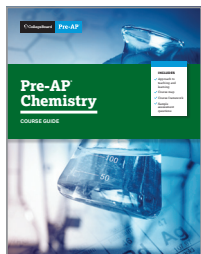
Pre-AP has a more intentionally narrow focus on a prioritized set of concepts, so certain topics are considered outside the scope of the Pre-AP course. For example, the Minnesota Academic Standards in Science include topics about solubility, types of chemical reactions, and catalysts which are not directly addressed by the Pre-AP framework. However, there are natural opportunities to address these topics during instruction.



Science and engineering practices are integrated in the Pre-AP learning objectives. As a result, The Nature of Science and Engineering content strand of the Minnesota Academic Standards in Science is not explicitly covered by the Pre-AP framework. However, the Pre-AP Chemistry model lessons provide frequent opportunities to address and develop these skills.

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 and the Minnesota Academic Standards in Science. 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 Minnesota Academic Standards in Science with confidence throughout this course.**



Learn more about Pre-AP Chemistry at preap.org