Pre-AP Chemistry and Alabama Course of Study: 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 Alabama Course of Study: Science for Chemistry 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

<table>
<thead>
<tr>
<th>Alabama Course of Study: Science:</th>
<th>Discipline Highlights</th>
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<tbody>
<tr>
<td>• Energy</td>
<td>✓ Overall, the alignment between the Pre-AP Chemistry Course Framework and the Alabama Course of Study: Science is very strong.</td>
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<td>✓ In all three disciplinary core ideas of the Alabama Course of Study: Science, the majority of the Chemistry standards are addressed in full or in part by the Pre-AP framework.</td>
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<td>✓ The Alabama Course of Study: Science and the Pre-AP framework share the strongest alignment among topics within the Energy disciplinary core idea, especially for key topics such as kinetic molecular theory and energy changes within a system.</td>
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= Very strong alignment

= Partial alignment

Alignment between the Pre-AP Chemistry Course Framework and the Alabama Course of Study: Science is described as very strong or partial. A very strong alignment is one in which the majority of standards are 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

Alabama Course of Study: Science:

- Matter and Its Interactions
- Motion and Stability: Forces and Interactions

Discipline Highlights

While the overall alignment between the Alabama Course of Study: Science and the Pre-AP Chemistry framework is very strong, there are some expected areas of partial alignment due to the more granular nature of some of the Alabama Course of Study: Science standards.

The Course of Study contains more specific statements than the Pre-AP Learning Objectives. For example, content standard 6c addresses the conductivity of ionic and covalent substances in solution. The Pre-AP Learning Objectives discuss macroscopic properties of ionic and covalent substances, but do not specify conductivity. As a result, the standard was given a partial rating.

The Pre-AP Chemistry Course Framework 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, historical models of the atom, atomic mass as a weighted average, factors affecting solubility, and chemical equilibrium are not addressed by the learning objectives and are considered outside the purview of Pre-AP Chemistry 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 Science Areas of Focus to understand the full picture of alignment between Pre-AP Chemistry and the Alabama Course of Study: 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 Alabama Course of Study: Science with confidence throughout this course.**

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