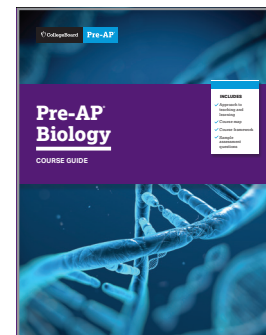




Pre-AP Biology and Maryland Next Generation Science Standards: High School Life Sciences: Alignment Summary

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 Biology Course Framework and the Maryland Next Generation Science Standards (NGSS): High School Life 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 Biology.



Alignment at a Glance: Very Strong

Maryland NGSS



- **From Molecules to Organisms: Structures and Processes**
- **Ecosystems: Interactions, Energy, and Dynamics**
- **Heredity: Inheritance and Variation of Traits**
- **Biological Evolution: Unity and Diversity**

Discipline Highlights

- ✓ Overall, the alignment between the Pre-AP Biology Course Framework and the Maryland NGSS is very strong.
- ✓ Across the strands of the NGSS: High School Life Sciences, the majority of the standards are addressed by the Pre-AP Biology Course Framework.
- ✓ Maryland NGSS and Pre-AP share the deepest alignment within the four life science strands.



= **Very strong alignment**



= **Partial alignment**

Alignment between the Pre-AP Biology Course Framework and the Maryland Next Generation Science 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 LOs. 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

Maryland NGSS



- Earth's Place in the Universe
- Earth's Systems
- Earth and Human Activity
- Engineering Design

Discipline Highlights



While the overall alignment between the Maryland Next Generation Science Standards and the Pre-AP Biology Course Framework is strong, there are some expected areas of partial alignment or gaps in alignment due to the differences in the level of specificity in some areas.



The NGSS performance expectations leads strongly with the language of science practices; for example, HS.LS1-3 begins "Plan and conduct an investigation ..." Because this does not precisely match the Pre-AP learning objectives, the match is listed as partial. However, these science practices are deeply embedded in the Pre-AP framework, as evidenced in the instructional material and performance tasks. They are also aligned with the Pre-AP science areas of focus.



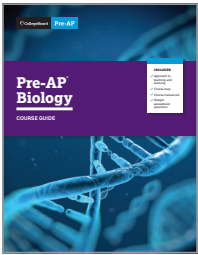
Due to the broad language used in the MD NGSS performance expectations, in comparison to the Pre-AP learning objectives, we list several alignment areas as partial since we don't have complete confidence in alignment. For example, the NGSS PEs do not explicitly reference concepts related to enzymes like the Pre-AP learning objectives do. However, we do assume some partial alignment here based on PEs related to proteins.



There are some gaps in the alignment with the NGSS Earth and Space Science standards. Although not all Earth and Space Science standards have direct matches, it is valuable to see where the Pre-AP Biology framework extends beyond what is listed in the NGSS: High School Life Sciences.

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 Biology and the Maryland Next Generation Science 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 Maryland Next Generation Science Standards with confidence throughout this course.**



Learn more about Pre-AP Biology at preap.org.