# Pre-AP Biology and Next Generation Science Standards: High School Life 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 Biology Course Framework and the Next Generation Science Standards (NGSS): High School Life 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 Biology.



#### Alignment at a Glance: Very Strong

# NGSS: High School Life Science:



- 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 Framework and the NGSS: High School Life Science is very strong.



Across all eight strands of the NGSS: High School Life Science, the majority of the standards are addressed by the Pre-AP course framework.



The NGSS: High School Life Science and the Pre-AP framework share the deepest alignment in the following content strand areas: From Molecules to Organisms: Structures and Processes; Ecosystems: Interactions, Energy, and Dynamics; Heredity: Inheritance and Variation of Traits; Biological Evolution: Unity and Diversity.



Very strong alignment



= Partial alignment

Alignment between the Pre-AP Biology Course Framework and the NGSS: High School Life 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

## NGSS: High School Life Science:

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

#### **Discipline Highlights**



While the overall alignment between the NGSS: High School Life Science and the Pre-AP Biology 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: High School Life Science contains more specific language than the Pre-AP learning objectives. The NGSS often leads strongly with the language of science, for example, HS.LS1-3 begins "Plan and conduct an investigation..." Since 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 course framework, as evidenced in the instructional material and performance tasks. They are also aligned with the Areas of Focus and the Pre-AP science practices.



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 course framework extends beyond what is listed in the NGSS: High School Life Science.

### **Summary**

Beyond alignments to the course framework, it is also important for educators to turn to the Pre-AP Shared Principles and Pre-AP Biology Areas of Focus to understand the full picture of alignment between Pre-AP Biology and NGSS: High School Life 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 NGSS: High School Life Science with confidence throughout this course.



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