

What are the new science graduation requirements for completing the college preparatory/work ready curriculum?

Of the three units or sets of competencies of laboratory science required, one must be a life science meeting the standards for Biology 1, one must be a physical science meeting the standards for Physical Science, Chemistry **or** Physics and one must be from the domains of physical science, life science or earth and space science with content and rigor above Biology 1 or Physical Science.

What courses count for the Physical Science requirement?

Any course aligned to the Oklahoma Academic Standards for Physical Science, Chemistry or Physics.

Do all students have to take Physical Science?

If students take a Chemistry or Physics class, this also meets the “Physical Science” requirement.

When should students take their Physical Science requirement?

Some students take Biology 1 their 9th grade year and then Chemistry or Physics in 10th or 11th grade. Therefore, they meet the Physical Science requirement without taking the Physical Science course.

Some students take Physical Science their 9th grade year and then Biology 1 their 10th grade year.

Does Environmental Science count as one of the three laboratory science requirements?

Environmental Science counts as one of the three laboratory science requirements if the course is designed to meet the Environmental Science standards found in the Oklahoma Academic Standards for Science and the course is not taken as a Pre-Biology course covering the Biology 1 standards.

When will the changes go into effect?

- These changes will go into effect July 1, 2018, meaning they will affect the class of 2019 (those students enrolled in 10th grade in 2016-2017).

What certification does a teacher need to teach Physical Science, Chemistry or Physics?

- To teach Chemistry, a teacher must have a Chemistry certification.
- To teach Physics, a teacher must have a Physics certification.
- To teach Physical Science, a teacher must have a Physical Science certification or Chemistry and Physics certifications.

Once students have achieved their Biology 1 and Physical Science credit, what can students take to meet the third science credit?

To meet the third science credit, students can take any other science course under the domains of physical science, life science or earth and space science.

If students take a science course for high school credit in middle school, do they have to take three additional science credits in 9-12 grade?

No, they do not. However, if students take Physical Science or Biology in 8th grade, **two things** should happen.

- The requirement does say the course has to be taught at or above the level of rigor of Biology 1 as a laboratory science course for the college preparatory track.
- The 8th grade standards should be covered in addition to the Physical Science standards.

Many schools have offered Physical Science in 8th grade as an advanced course; however, they wrap the 8th grade standards in and essentially cover the 8th grade standards and the high school Physical Science standards in one school year.

The **8th-grade standards contain concepts** that serve as **progressions for high school Biology, Physical Science and Earth and Space Science** that are not covered in any other grade level or course standards. If students do not receive instruction over the 8th grade standards they will miss concepts that will leave them at a disadvantage in later high school courses.

Keep in mind: the **8th grade science test** is **over the 8th grade science standards** and all students enrolled in 8th grade take the 8th grade science exam regardless of the class they are enrolled in.