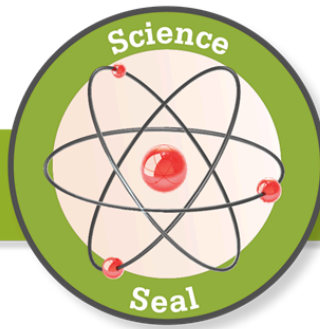




# Department of Education & Workforce

## Science Seal



### Guidelines for Schools and Districts

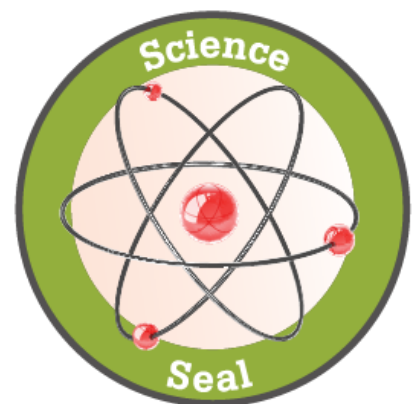
Under Ohio's long-term graduation requirements, students must demonstrate readiness as a part of their pathway to earning a high school diploma. To demonstrate readiness, students must earn at least two seals, one of which must be a state-defined seal.

The Science Seal is a state-defined seal. Students will earn the Science Seal by demonstrating knowledge and skills through course work, Ohio's State Tests, Advanced Placement and International Baccalaureate courses and tests, or in College Credit Plus coursework.

### Science Seal – General Requirements

Ohio Revised Code Section 3313.6114(C)(5) (<http://codes.ohio.gov/orc/3313.6114>).

#### **Download the Science Seal**



[./getattachment/Topics/Ohio-s-Graduation-Requirements/Ohio's-Graduation-Requirements/Graduation-Seals/SCI-btn.png.aspx](http://getattachment/Topics/Ohio-s-Graduation-Requirements/Ohio's-Graduation-Requirements/Graduation-Seals/SCI-btn.png.aspx)

[Print Guidelines](#)

To earn Ohio's Science Seal, students must satisfy at least one of the following:

1. Earn a final course grade that is equivalent to a "B" or higher in an Advanced Science course;
2. Earn a score of proficient on Ohio's State Test in Biology;
3. Earn a score equivalent to proficient on an appropriate Advanced Placement or International Baccalaureate science test; or
4. Earn a "B" or higher in a College Credit Plus science course.

Students with an IEP who participate in the Ohio Alternate Assessment for Students with the Most Significant Cognitive Disabilities may earn the seal by earning a score of **Basic** on the science alternate assessment.

## Final Course Grade

Earn a final course grade that is equivalent to a "B" or higher in an Advanced Science course.

Advanced science courses contain rigorous content appropriate for grades 11 and 12. An advanced science course builds on the concepts and skills developed in the physical science and biology courses detailed in Ohio's Learning Standards for Science.

- Appropriate advanced science courses include:
  - chemistry, physics or other physical sciences;
  - advanced biology or other life sciences;
  - astronomy
  - physical geology or other Earth or space science; and
  - Advanced Placement (AP) or International Baccalaureate (IB) Earth, life or physical science courses.

## Ohio's State Tests

Students may earn Ohio's Science Seal by earning a score of proficient or higher on Ohio's State Test in Biology.

## Advanced Placement and International Baccalaureate

Students may satisfy the requirements of Ohio's Science Seal by earning a score that is equivalent to proficient on an appropriate Advanced Placement or International Baccalaureate test. This section outlines the qualifying Advanced Placement and International Baccalaureate tests to earn the Science Seal.

### ADVANCED PLACEMENT COURSES AND TESTS

Students must earn a score of "2" or higher on ONE of the associated Advanced Placement tests. The qualifying courses include:

1. Biology;
2. Chemistry;
3. Environmental Science
4. Physics 1: Algebra-Based;

5. Physics 2: Algebra-Based;
6. Physics C: Electricity and Magnetism; or
7. Physics C: Mechanics.

## **INTERNATIONAL BACCALAUREATE COURSES AND TESTS**

Students must earn a score of “3” or higher on ONE of the associated Standard-Level exams or a “2” or higher on ONE of the associated Higher-Level exams. The qualifying courses include:

Biology;  
Chemistry;  
Design technology;  
Environmental systems and societies;  
Physics; or  
Sports, exercise and health science.

*Note: Please be aware that scores for Advanced Placement and International Baccalaureate tests are returned after July 1 of each school year. Districts should consider the test score return windows for students who would like to use these tests to earn diploma seals.*

## **Frequently Asked Questions**

### **GENERAL QUESTIONS**

Are districts required to administer the biology end-of-course test to all students, even if the student is using Advanced Placement, International Baccalaureate tests or College Credit Plus courses to earn the Science Seal? ([#FAQ4687](#)).

Would an Honors Biology course count as an advanced science course? ([#FAQ4686](#)).

My student is focusing on the physical sciences (chemistry and physics). Can he or she take Ohio’s State Test in Physical Science instead of the biology test? ([#FAQ4685](#)).

Are students able to take the average of two half credit advanced science courses to earn the Science Seal if the average is a “B” or higher? ([#FAQ4684](#)).

Does a student who earns an advanced science course grade of a B- meet the requirements of the Science Seal? ([#FAQ4683](#)).

### **DIVERSE LEARNERS**

What accommodations are available to English learners and students with disabilities on the Advanced Placement and International Baccalaureate tests? ([#FAQ4682](#)).

Can English learners take the International Baccalaureate test in languages other than English to meet the high school graduation requirements? ([#FAQ4681](#)).

Do Advanced Placement and International Baccalaureate test scores earned in another district, state or country satisfy the requirements for the seal? ([#FAQ4680](#)).

## ACCOUNTABILITY AND SCHOOL REPORT CARDS

If a student uses Advanced Placement, International Baccalaureate tests or a College Credit Plus course to earn the Science Seal, how will that impact the school's report card? ([#FAQ4679](#)).

## ADDITIONAL RESOURCES

What are some additional resources to refer to? ([#FAQ4678](#)).

---

## General Questions

**Are districts required to administer the biology end-of-course test to all students, even if the student is using Advanced Placement, International Baccalaureate tests or College Credit Plus courses to earn the Science Seal?**

Yes. As part of the state assessment system and to meet federal testing requirements for science, districts and schools must administer the biology end-of-course test to all students. Students who earn scores of proficient or higher on the biology test will meet the requirement for the Science Seal.

[Back to Top](#) ([#top](#)).

---

**Would an Honors Biology course count as an advanced science course?**

No, an advanced science course builds upon the content delivered in Ohio's biology and physical science standards. Honors Biology is likely a course that covers the same standards as other students taking a biology course, but with more rigorous expectations. Advanced Placement Biology could possibly count as an advanced science if it is not the first biology course taken by a student in their high school career.

[Back to Top](#) ([#top](#)).

---

**My student is focusing on the physical sciences (chemistry and physics). Can he or she take Ohio's State Test in Physical Science instead of the biology test?**

No. Per *Ohio Revised Code section 3301.0712(B)(8)(a)* (<http://codes.ohio.gov/orc/3301.0712>), the physical science end-of-course test no longer is part of the state assessment system. Biology is the only state science end-of-course test.

[Back to Top](#) ([#top](#)).

---

**Are students able to take the average of two half credit advanced science courses to earn the Science Seal if the average is a "B" or higher?**

Yes, a student who takes two half credit advanced science courses is able to take the average between the two courses to earn the Science Seal. For example, a student takes a semester of astronomy and earns an "A" and then takes a semester of physical geology and earns a "C." Between both courses, if the district or school determines the average to be a B, then the student can earn the Science Seal.

[Back to Top](#) ([#top](#)).

---

## **Does a student who earns an advanced science course grade of a B- meet the requirements of the Science Seal?**

[ORC 3313.6114](https://codes.ohio.gov/ohio-revised-code/section-3313.6114) (<https://codes.ohio.gov/ohio-revised-code/section-3313.6114>) provides the option for students to earn a grade equivalent to a “B.” Local district policies govern grades earned by students. If a district determines that a “B-” grade meets this requirement, that grade can be used to earn the Science Seal.

[Back to Top](#) ([#top](#)).

---

## **Diverse Learners**

### **What accommodations are available to English learners and students with disabilities on the Advanced Placement and International Baccalaureate tests?**

The Advanced Placement and International Baccalaureate tests are not Ohio’s State Tests; therefore, the features and accommodations in Ohio’s Accessibility Manual do not apply. Refer to the Advanced Placement and International Baccalaureate test resources for additional information:

[Advanced Placement Tests Accommodations](https://apcentral.collegeboard.org/ap-coordinators/preparing-exam-day/accommodations) (<https://apcentral.collegeboard.org/ap-coordinators/preparing-exam-day/accommodations>);

[International Baccalaureate Accommodations](#)

([https://www.haef.gr/~media/Files/HAEF/IB/pdf/Info\\_for\\_parents/Candidates\\_with\\_SpecialAssessmentNeeds\\_2011.ashx?la=en](https://www.haef.gr/~media/Files/HAEF/IB/pdf/Info_for_parents/Candidates_with_SpecialAssessmentNeeds_2011.ashx?la=en)).

[Back to Top](#) ([#top](#)).

---

### **Can English learners take the International Baccalaureate test in languages other than English to meet the high school graduation requirements?**

Yes, English learners may take the International Baccalaureate science assessments in any of the languages offered. In addition to English, International Baccalaureate assessments are offered in French, Spanish, German, Japanese and Chinese.

[Back to Top](#) ([#top](#)).

---

### **Do Advanced Placement and International Baccalaureate test scores earned in another district, state or country satisfy the requirements for the seal?**

Yes. Official test scores for Advanced Placement and International Baccalaureate tests will satisfy the requirements if they meet the proficiency requirements of the seal.

[Back to Top](#) ([#top](#)).

---

# Accountability and School Report Cards

## **If a student uses Advanced Placement, International Baccalaureate tests or a College Credit Plus course to earn the Science Seal, how will that impact the school's report card?**

While students can use a College Credit Plus course grade, Advanced Placement or International Baccalaureate test scores to earn the Science Seal for graduation, districts must administer Ohio's State Test in Biology to all students to fulfill federal testing requirements.

College Credit Plus grades are not included in the Indicators Met measure on the report card; however, scores for the end-of-course test for biology are included in the Indicators Met measure;

Advanced Placement and International Baccalaureate tests also are included, and the calculation uses the higher of the two scores to determine if the student is counted in the numerator of the calculation. A student must earn a 3 or higher on the biology end-of-course test to be counted in the numerator. A score of 2 or higher is needed on the Advanced Placement or International Baccalaureate test to be included in the numerator.

**[Back to Top](#)** ([#top](#)).

---

## Additional Resources

### **What are some additional resources to refer to?**

[Advanced Placement Exams \(Course Index\)](https://apstudents.collegeboard.org/course-index-page) (<https://apstudents.collegeboard.org/course-index-page>) – The College Board website provides information for each Advanced Placement course and exam. Search through the index for your designated course. Details, tips and preparation for Advanced Placement science exams are available.

[College Board Advanced Placement Science Resources](#)

[Expanding Opportunities for Each Child Grant](http://education.ohio.gov/Topics/District-and-School-Continuous-Improvement/Expanding-Opportunities-for-Each-Child-EOEC-A) (<http://education.ohio.gov/Topics/District-and-School-Continuous-Improvement/Expanding-Opportunities-for-Each-Child-EOEC-A>) – A direct student services grant designed to give greater access to advanced coursework and career pathways and increase enrollment for low-income students in Advanced Placement and International Baccalaureate opportunities. This grant aligns to local continuous improvement plans. Applicants may request up to three years of funding.

[Ohio's Learning Standards for Biology and Model Curriculum](https://education.ohio.gov/getattachment/Topics/Learning-in-Ohio/Science/Ohios-Learning-Standards-and-MC/SciFinalStandardsMC060719.pdf.aspx?lang=en-US) (<https://education.ohio.gov/getattachment/Topics/Learning-in-Ohio/Science/Ohios-Learning-Standards-and-MC/SciFinalStandardsMC060719.pdf.aspx?lang=en-US>).

[Ohio's Learning Standards for Computer Science and Model Curriculum](http://education.ohio.gov/getattachment/Topics/Learning-in-Ohio/Computer-Science/Model-Curricula-in-Computer-Science/ComputerScienceMC_Gr9-12.pdf.aspx?lang=en-US) ([http://education.ohio.gov/getattachment/Topics/Learning-in-Ohio/Computer-Science/Model-Curricula-in-Computer-Science/ComputerScienceMC\\_Gr9-12.pdf.aspx?lang=en-US](http://education.ohio.gov/getattachment/Topics/Learning-in-Ohio/Computer-Science/Model-Curricula-in-Computer-Science/ComputerScienceMC_Gr9-12.pdf.aspx?lang=en-US)).

[Ohio's State Test: Student Practice Site – Biology](https://oh-ost.portal.cambiumast.com/families.html) (<https://oh-ost.portal.cambiumast.com/families.html>).

**[Back to Top](#)** ([#top](#)).

---