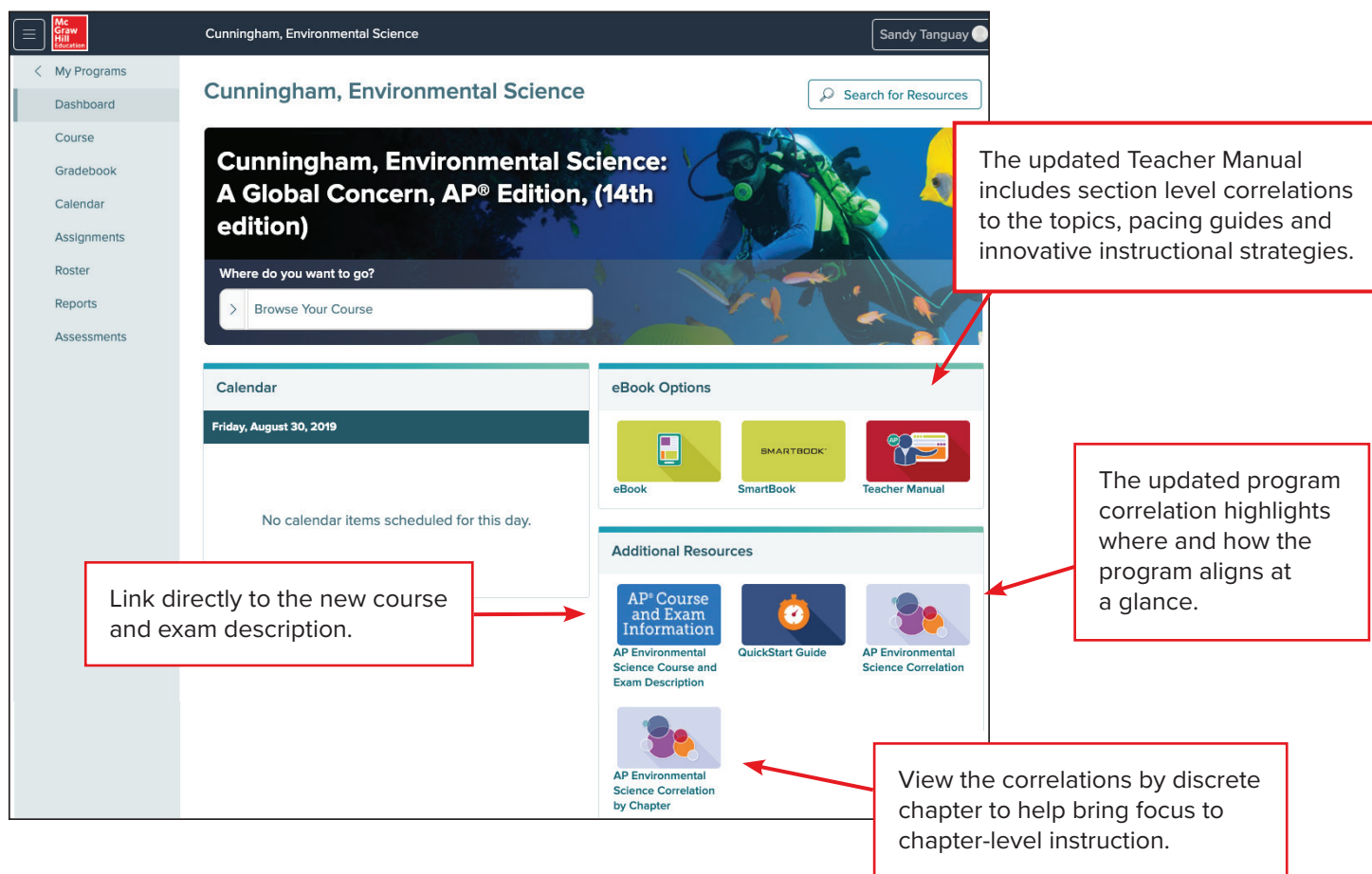


# Updated Digital Resources Aligned to the New Framework

The digital resources have been updated to help you deliver instruction aligned to the new curriculum Framework.

The course dashboard aggregates a variety of resources essential to meeting the new standards including the updated Teacher Manual, updated Correlations, and a link directly to the new College Board Course and Exam Description. The test banks have also been revised to help you provide meaningful practice and assessment opportunities that ensure students are preparing for the Exam all year long.



The screenshot displays the course dashboard for "Cunningham, Environmental Science" by Sandy Tanguay. The dashboard includes a sidebar with navigation links (My Programs, Dashboard, Course, Gradebook, Calendar, Assignments, Roster, Reports, Assessments) and a main content area. The main area features a header with the course title and a search bar, followed by a large banner for the "Cunningham, Environmental Science: A Global Concern, AP® Edition, (14th edition)". Below the banner is a "Where do you want to go?" section with a "Browse Your Course" button. The dashboard is divided into several sections: "Calendar" (showing Friday, August 30, 2019), "eBook Options" (with links to eBook, SmartBook, and Teacher Manual), and "Additional Resources" (with links to AP® Course and Exam Information, QuickStart Guide, AP Environmental Science Correlation, and AP Environmental Science Correlation by Chapter). Red callout boxes highlight specific features: "Link directly to the new course and exam description." points to the "AP® Course and Exam Information" link; "The updated Teacher Manual includes section level correlations to the topics, pacing guides and innovative instructional strategies." points to the "Teacher Manual" link; "The updated program correlation highlights where and how the program aligns at a glance." points to the "AP Environmental Science Correlation" link; and "View the correlations by discrete chapter to help bring focus to chapter-level instruction." points to the "AP Environmental Science Correlation by Chapter" link.

In addition to the updates that align the program contents to the new curriculum, the Teacher Manual includes a section dedicated to addressing the updated Framework.

## **CHAPTER 15 AIR, WEATHER, AND CLIMATE**

### **Chapter Overview**

The air flow patterns that circulate throughout Earth's atmosphere are an integral component of weather and subsequently climate. This chapter describes these patterns. Focused on climate variability and human induced climate change, this chapter provides an essential background for the next few chapters.

### **Addressing the Updated Curriculum**

#### **Topics and Required Concepts**

The topics covered in this chapter fall under Unit 4: Earth Systems and Resources and Unit 9: Global Change.

#### **Unit 4: Earth Systems and Resources**

- Students need to know the basic composition of the atmosphere. They should know the major atmospheric gases and abundances. Students should be familiar with the layers of the atmosphere, specifically the troposphere and the stratosphere, and that these layers are based on temperature gradient. (*Topic 4.4 Earth's Atmosphere*).
- Students need to be able to explain which factors result in atmospheric circulation. Students must have a strong understanding that global wind patterns are the result of solar radiation arriving at the equator, resulting in density differences and the Coriolis effect. (*Topic 4.5 Global Wind Patterns*)
- Students must be able to explain how the sun's energy affects the Earth's surface and creates seasons. This will include being able to detail how solar radiation interacts with the shape of the Earth, its surface, and the movement of the Earth. (*Topic 4.7 Solar Radiation and Earth's Seasons*)
- In addition to understanding seasons, students must be able to explain how Earth's geography, such as mountains and ocean temperatures, affects weather and climate. Many students are unclear on the difference between weather and climate, so this may need to be addressed first. Additionally, students will be expected to know and explain what "rain shadows" are and how they function (*Topic 4.8 Earth's Geography and Climate*)
- Students should understand the air/ocean interactions which produce El Niño and La Niña conditions, and be able to explain the worldwide environmental impacts of these weather phenomena. Students need to know not only what they are and where they occur, but their significance to weather-related events worldwide as well. (*Topic 4.9 El Niño and La Niña*).

Cunningham, Environmental Science

Sandy Tanguay

Cunningham, Environmental Science: A Global Concern, AP® Edition, (14th edition)

Course Resources

AP Core: Environmental Science: A Global Concern / Chapter: 15: Climate Change

Preview Student Page Launch Presentation Edit

## 15: Climate Change

Hide Chapter Info

AP Chapter Overview Teaching the Chapter AP Suggested Assignments Benchmarks Pacing

ENG-3.T1	ERT-1.C.2	ERT-1.D.1	ERT-1.D.2	ERT-1.D.3	ERT-1.D.4	ERT-1.E.4	ERT-1.G.2	ERT-2.G.1	ERT-2.G.3	ERT-2.G.4
ERT-2.G.5	ERT-4.D.1	ERT-4.D.2	ERT-4.E.1	ERT-4.F.1	STB-2.D.1	STB-2.G.1	STB-3.B.2	STB-4.A.1	STB-4.A.2	STB-4.A.3
STB-4.C.1	STB-4.C.2	STB-4.C.3	STB-4.E.1	STB-4.F.1	STB-4.F.10	STB-4.F.2	STB-4.F.3	STB-4.F.4	STB-4.F.5	STB-4.F.6
STB-4.F.7	STB-4.F.8	STB-4.F.9	STB-4.G.1	STB-4.G.2	STB-4.G.3	STB-4.H.1	STB-4.H.2	STB-4.H.3	STB-4.H.4	1A 1B 2A
2.B	2.C	5.A	5.D	7.A						

ERT-1.E.4: The atmosphere is the major reservoir of nitrogen.

Chapter level resources include an *AP Chapter Overview*, *Pacing Guide*, tips for *Teaching the Chapter*, *AP Suggested Assignments*, and *Benchmarks* that articulate the specific standards addressed within the chapter. Direct links to this section shows the standard number and the standard's description.

Cunningham, Environmental Science

Sandy Tanguay

Assessments

Assessment Banks Question Banks Passage Banks

Assessments > Cunningham 14e Assessments

+ New Assessment

#	Title
1	AP Environmental Science Chapter 1 Test
2	AP Environmental Science Chapter 2 Test
3	AP Environmental Science Chapter 3 Test
4	AP Environmental Science Chapter 4 Test
5	AP Environmental Science Chapter 5 Test
6	AP Environmental Science Chapter 6 Test
7	AP Environmental Science Chapter 7 Test

Standards

National Standards

Advanced Placement Standard...

Sciences (2019)

Select course

AP Environmental Science Course Content

AP Environmental Science Science Practices

The searchable *Test Bank* allows you to create assessments aligned to the updated framework by content standard, practice, or skill.