



## Common Core Supplement

# The University of Arizona College of Science Biosphere 2

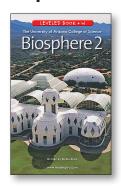
## **Key Question**

What is Biosphere 2 teaching scientists today?

### **Vocabulary**

**Academic vocabulary**: data (n.), factors (n.), generate (v.), inspired (v.), principle (n.), structures (n.)

Discuss each academic vocabulary word with students. Point to the use of each word in the book, and then use each word in a different model sentence. Have students work in groups to create posters for these words. Include on each poster: the word and its part of speech, the definition, the word in an example sentence, and a picture illustrating the meaning of the word. Hang these posters up in the classroom for students to see and refer to as they encounter the words within other texts, lessons, and assignments.



#### **Story words**

• biome (n.), biosphere (n.), climate change (n.), ecosystem (n.), engineer (v.), global warming (n.)

#### **Enrichment words**

• air pressure (n.), carbon dioxide (n.), factors (n.), membrane (n.), natural services (n.), oxygen (n.)

Go to VocabularyA–Z.com for a pre-made vocabulary lesson for *The University of Arizona College of Science Biosphere 2.* 

#### Ask and answer questions

Before students read, model a think-aloud while taking a picture walk through the book. Annotate the text with questions, reactions, or wonderings in the margin. While they read, encourage students to answer the questions in the margins of the book. After they read, allow the students to discuss their annotations with a partner.

## **Text features: Photographs and captions**

Have students locate the photographs within the book. Ask students what information the photographs and their captions provide. Next, have students read the accompanying text. Ask students how the photographs and captions are helpful for understanding the text.

#### **Text-dependent questions**

Next to each answer, have students write the page number(s) where they found information in the text to answer the questions.

- How long did people live in the Biosphere 2? (level 1)
- What was the original question the designers of the biosphere were hoping to solve? (level 2)
- What happened when the oxygen levels began to drop in the biosphere? (level 2)
- Which of the Earth's problems are the scientists hoping to solve in the rainforest biome? (level 2)
- Why was it necessary to create a "lung" inside the biosphere? How does it work? (level 3)
- Explain how changes happening in one part of the earth can affect other places on earth. (level 3)

#### **Graphic organizer: Author's purpose**

Use the lesson graphic organizer to have students identify the author's purpose. Model and discuss how to use the organizer by locating evidence from the text.

#### Response to reading

Have students cite specific evidence from the book to answer the key question.

**Instructions:** Choose details from each section of the book. Consider whether these details inform, persuade, or entertain the reader, and record them in the appropriate evidence box. Then, examine the evidence and check the box in front of the term that best describes the author's purpose for this book.

	Evidence:
To Inform	
	Evidence:
To Persuade	
	Evidence:
To Entertain	