

ECOSYSTEMS

Answer Key: Grades 7–8 Lesson Extensions

Notes:

- This answer key should be used as a guide for basic responses to the questions and instructions found in the grades 7–8 lesson extensions. The children should be encouraged to make their science journals tidy, beautiful, and exceptionally well done.
- Encourage the children to write their answers in their own words, with definitions being a possible exception.
- There are two types of answers provided in this answer key:

Sample answers: Most questions are open ended, so the children’s answers will not match the provided text exactly or include everything provided in the sample answer. However, some answers should match more closely (for example, vocabulary word definitions, copied charts, etc.).

Answers will vary: This is used when there will be great variation in the children’s answers, which may be due in part to a lesson having more information provided than another lesson. Refer to the text in the lesson to check these answers.

Lesson 1

2. Choose one of the keystone species listed below and draw a before and after picture (or write a paragraph) of what the ecosystem would look like if this species suddenly disappeared. Think carefully about which species would be affected and how those effects, in turn, affect the next species.

Sample answer: If African elephants suddenly disappeared from an ecosystem, it would make a dramatic difference. Many plants would be unable to grow, which would lead to food shortages for other animals. The animals in this ecosystem would also suffer from lack of water if elephants disappeared. So while many of the animals in the area may not directly interact with the elephants, they depend upon them heavily for their survival. The animals who normally prey on elephants, such as lions, would also be without a major food source, which could cause their numbers to decline, or result in their feeding too much on other animals, such as zebras. Ultimately, an ecosystem suddenly without elephants could look very sparse in terms of both plants and animals.

Lesson 2

1. Read the article and answer the following question in your science journal: How do you think an earthquake could

affect animal life in or near the area where you live?

Answers will vary.

Lesson 3

1. Choose an organism to research. This could be an animal, insect, or other type of living thing. Research online or in books to learn more about your chosen organism. Then, using full sentences, answer the questions below in your science journal.

Answers will vary. Answers should reflect the organism chosen by the student. Ensure all questions were answered.

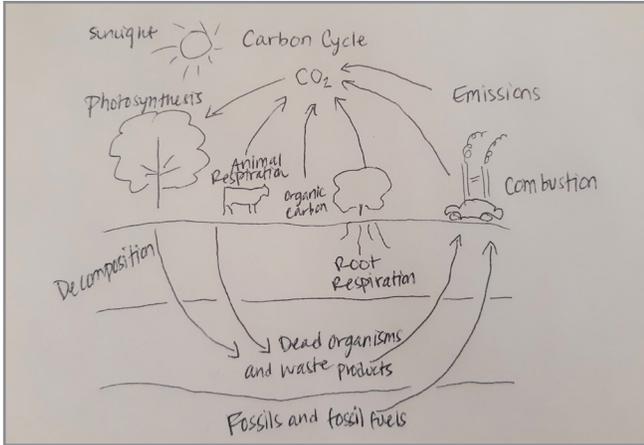
2. Sketch, tape, or glue an image of the organism beneath your answers, and then label the organism's main parts.

Answers will vary. See example given in the extension.

Lesson 4

2. Draw a carbon cycle diagram in your notebook and label it with the four processes that contribute to the carbon cycle.

See next page for sample answer.



Lesson 8

2. Crater Lake, Lake Baikal, the Great Salt Lake, and the Dead Sea are just a few examples of aquatic biomes in the world. In your science journal, answer the following questions: What freshwater or marine biome is closest to you? What ecosystem(s) does it support? Be sure to include some plant, animal, and landscape descriptions in your response.

Answers will vary.

Lesson 9

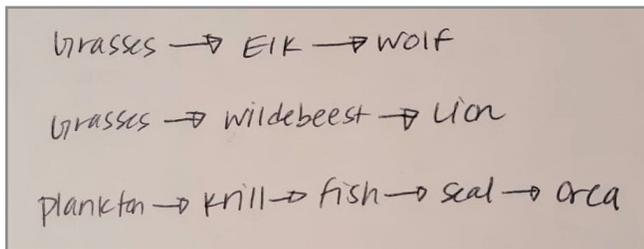
2. Choose one of the animals in the “Pond Wildlife” column and research its impact on pond succession. What would happen in the life cycle of the pond if this species was no longer alive? Could something replace this species so that the pond life cycle could continue?

Sample answer: If mosquitos were no longer alive, that could change the plant and animal life in a pond ecosystem. Mosquitos help pollinate plants. Other insects could help accomplish pollination, but the loss of mosquitos could also affect the number of organisms living in a pond that rely on mosquitos for food. With fewer large organisms present, this would change a pond’s succession abilities.

Lesson 5

2. In your science journal, write or draw the food chain for each of the three predators shown at the bottom of the page.

Sample answer:



Lesson 6

No journal answer required.

Lesson 7

2. In your science journal, choose and complete two of the following assignments:

- a. Choose one of the quotes by Wangari Maathai and copy it in your science journal. How does the quote inspire you in your life? Write the answer in your science journal.
- b. Write a paragraph in your science journal about how the trees found in Africa helped the people there. How do trees impact your life?
- c. Write a summary of the accomplishments of Wangari Maathai in your science journal.

Answers will vary. Answers should reflect information found in the extension.