# 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 student 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.

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## Lesson 1

*2. Draw a before-and-after picture (or write a paragraph) of what the ecosystem would look like if wolves, elephants, or lemmings suddenly disappeared. Think carefully about which species would be affected and how this, in turn, would impact 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. If plant-eating animals lose their food source, so will the predators that eat those animals. The animals in this ecosystem would also suffer from a lack of water if elephants disappeared. So while many of the animals in the area may not directly interact with the elephants, they depend heavily upon them for their survival. Ultimately, an ecosystem suddenly without elephants could look very sparse in terms of both plants and animals.

A picture would reflect similar information as mentioned in the sample answer above.

## Lesson 2

*2. Answer the questions in one or two sentences.*
*a. How do you think an earthquake could affect animal life in or near the area where you live?*

**Answers will vary.**

*b. What are some possible positive effects of an earthquake?*

**Answers will vary but could include the following:** Some positive effects of earthquakes include deeper insight and research by scientists into the ways animal behavior can help predict earthquakes; the creation of new landforms, such as lakes; and the creation of new ecosystems.

## Lesson 3

*2. Draw a carbon cycle diagram in your science journal and label it with the four processes that contribute to the carbon cycle.*
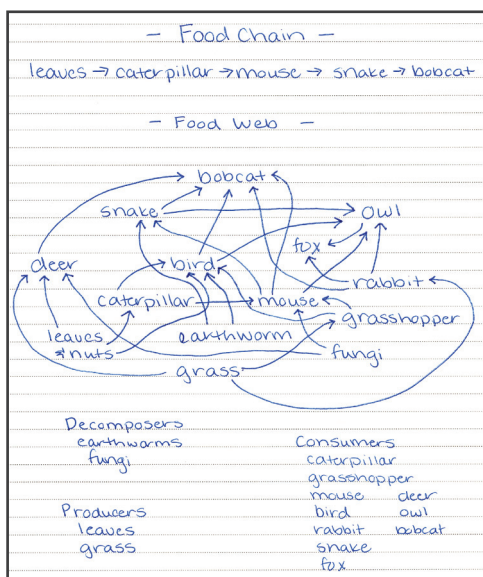
**Sample answer:**
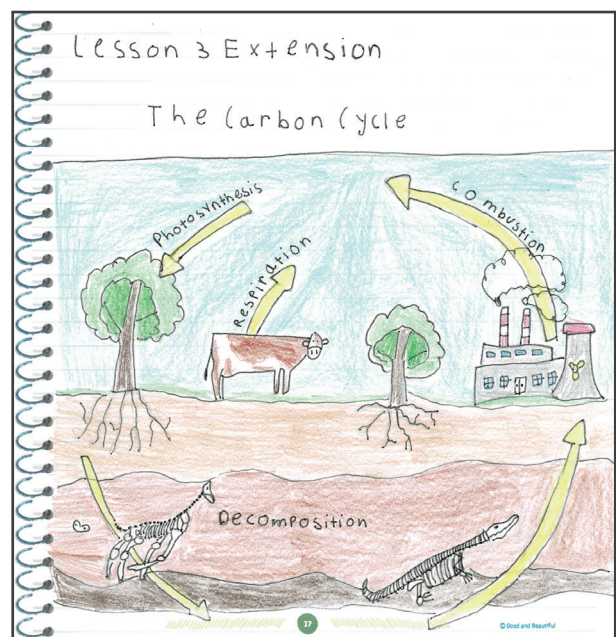
## Lesson 4

*2. Draw a food chain containing plants and animals of your choice. Then expand this into a food web. Label each organism as a decomposer, producer, or consumer.*
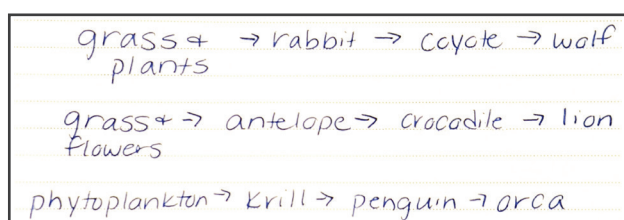
**Sample answer:**



## Lesson 5

*2. Write or draw the food chain for each of the three predators shown at the bottom of the page.*

**Sample answer:**



## Lesson 6

*2. Share what you learned with a family member or friend. Ask one or two adults if they have experience with these or any other types of parasites.*

**Answers will vary.** The child should have shared with a family member or friend a few of the main points as presented in the lesson extension, then asked the family member or friend if he or she has had an experience with parasites.

## Lesson 7

*2. Write a paragraph answering two of the questions below:*
*a. How does one of the quotes by Wangari Maathai inspire you?*

**Answers will vary.**

*b. How do the trees found in Africa help the people there?*

**Sample answer:** Muluhakuha trees provide wood to build homes, mukuyu trees can filter and clean water, moringa tree seeds contain antiseptic and anti-inflammatory properties, mubiru muiru fruit is edible, mukawa's prickly thorns create natural fences to keep out unwanted predators, muheregendi trees provide food for goats, and mukinduri wood is good to burn for cooking and warmth.

*How do trees impact your life?*

**Answers will vary.**

*c. What are the accomplishments of Wangari Maathai?*

**Answers will vary** but should reflect 3–4 pieces of information found in the lesson extension.

## Lesson 8

*2. Answer the following questions.*
*a. What freshwater or marine biome is closest to you?*

**Answers will vary.**

*b. 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. Draw a cycle of a pond succession that includes three pioneer species, two plant species that may be found in, on, or around ponds, and five animal species that may rely on the pond. Label each species type.*

**Sample answer:**