

Researchers studied a typical hardwood forest containing a variety of trees, other plant species, fungi, and animals. The atmospheric carbon dioxide concentrations around the forest were measured in the middle of the day. The carbon dioxide concentration was lowest right next to the forest and steadily increased as the researchers measured farther away from the forest.

- a. Identify **and** describe one biological process that raises carbon dioxide concentrations by adding carbon dioxide to the atmosphere.
- b. Explain why the lowest carbon dioxide concentration occurs closest to the forest. Be sure to include a biological process in your answer.
- c. Describe how nighttime carbon dioxide concentrations near the forest should compare with the midday concentrations near the forest. Explain your answer using **two** biological processes.