

CHAPTER 5	Investigation 5.A: Gases Released During Photosynthesis and Cellular Respiration Answer Key	BLM 5.1.5A
ANSWER KEY		

Answers to Analysis Questions

1. You should indicate that you saw a flame or that the splint burned faster, indicating the presence of oxygen.
2. The colour changed to pale yellow, indicating an acidic solution.
3. You should identify the gas in your exhaled breath as carbon dioxide. The presence of carbonic acid, due to carbon dioxide in exhaled breath, will cause the solution to become acidic.

Answer to Conclusion Questions

4. The oxygen collected in the test tube over the *Cabomba* plant is from photosynthesis.
5. The carbon dioxide exhaled in breath is from cellular respiration.
6. You may notice that the colour of the solution is no longer pale yellow and returns to a greenish-blue colour. This is due to the *Cabomba* carrying out photosynthesis and using the carbon dioxide in solution, which will cause the solution to decrease in acidity. This will only occur if the flask is stoppered. If the flask is open, the carbon dioxide in the air will naturally make the water acidic, which will counteract the activity of the plant and prevent the solution returning to the greenish-blue colour.