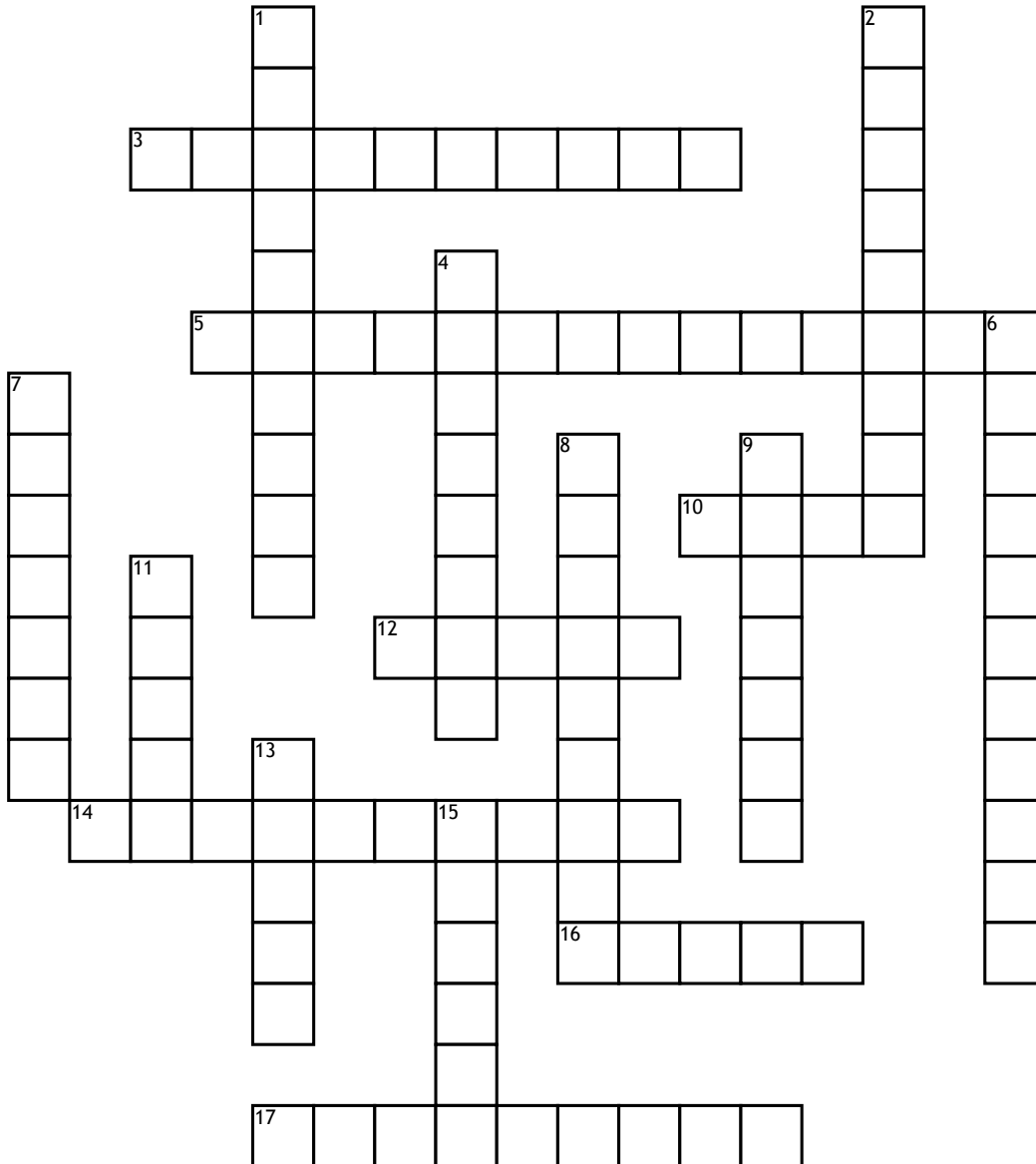


Chapter 22 Gas Exchange



Across

- 3. _____ occurs when the diaphragm relaxes and moves upward.
- 5. A _____ cavity in cnidarians and flatworms serves as a circulatory system.
- 10. Insects also use their respiratory system to _____.
- 12. In mammals, air is inhaled through the nostrils into the _____ cavity.
- 14. _____ helps transport CO₂ and assists in buffering blood.
- 16. Fish and amphibians use _____ to promote gas exchange.

17. Insects use tiny _____ tubes to deliver oxygen to each cell.

Down

- 1. _____ occurs when the diaphragm muscles contract and moves downward.
- 2. _____ waters holds more oxygen than still water.
- 4. The _____ system of insects provides direct exchange between the air and body cells.
- 6. The process of gas exchange is called _____.
- 7. Air is _____ and easier to move.

8. _____ controls centers in the brain sense and respond to CO₂ levels in the blood.

- 9. Birds and mammals have higher metabolic rates and more _____ lungs.
- 11. The 1st tetrapods on land diverged into _____ major lineages.
- 13. Respiratory surfaces must be thin and _____ for diffusion of O₂ and CO₂.
- 15. In the lungs, blood picks up _____ and drops off CO₂.