

Answer Key

1. **A. carbohydrates**
2. **E. lipids**
3. **G. proteins**
4. **D. nucleic acids**
5. **B. chemical reactions**
6. **F. molecules**
7. **B. concentration**
8. **F. diffusion**
9. **E. cell membrane**
10. **G. endocytosis**
11. **D. passive transport**
12. **A. osmosis**
13. **C. active transport**
14. **H. exocytosis**
15. **The dye particles are highly concentrated in one part of the container or cell.**
16. **The dye molecules have diffused more evenly through the water than they had in the situation represented by diagram A. The molecules are now less concentrated in one place, but the concentration is still higher toward the left.**
17. **Equilibrium (an equal concentration) has been reached; that is, all of the dye is evenly dispersed through the water.**
18. **Extended Response Rubric**
6 points for an answer that correctly predicts that the celery will wilt and that correctly uses all five terms to explain why this happens
Sample: The concentration of salt is higher outside the celery cells than inside the cells. As a result of this difference in concentration, osmosis will occur. Water will move from the inside of the cells to the outside of the cells through the cell membranes. The cells will then have little water in their vacuoles, and the celery will wilt.
5 points: predicts that the celery will wilt and correctly uses four terms to explain why
4 points: predicts that the celery will wilt and correctly uses three terms to explain why
3 points: predicts that the celery will wilt and correctly uses two terms to explain why
2 points: predicts that the celery will wilt and correctly uses one term to explain why
1 point: incorrectly predicts what will happen, but correctly uses at least two terms to explain osmosis