

**CHAPTER 7**

**Study Guide**

**Section 2: The Plasma Membrane**

In your textbook, read about the function of the plasma membrane.

Complete the table by checking the correct column(s) for each description.

Description	Selective Permeability	Homeostasis	Plasma Membrane
1. The process of maintaining balance inside a cell			
2. A boundary between a cell and its environment			
3. The feature of the plasma membrane that keeps some substances out			
4. Separates prokaryotic and eukaryotic cells from the watery environment in which they exist			
5. The quality of a plasma membrane that allows oxygen and glucose to move in			
6. Maintained by the plasma membrane			

In your textbook, read about the structure of the plasma membrane.

Label the diagram of the plasma membrane. Use these choices:

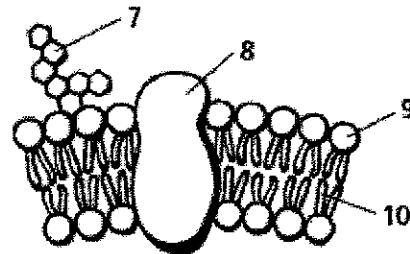
carbohydrate chain

nonpolar tails

polar head

transport protein

- 7. \_\_\_\_\_
- 8. \_\_\_\_\_
- 9. \_\_\_\_\_
- 10. \_\_\_\_\_



Match the definition or description in Column A with the term in Column B.

**Column A**

- \_\_\_\_\_ 11. make up most of the molecules in the plasma membrane
- \_\_\_\_\_ 12. a molecule that has a glycerol backbone, two fatty acid chains, and a phosphate-containing compound
- \_\_\_\_\_ 13. move substances through the plasma membrane
- \_\_\_\_\_ 14. two layers of phospholipids arranged tail-to-tail
- \_\_\_\_\_ 15. the phospholipid "sea" in which embedded substances float

**Column B**

- A. transport proteins
- B. lipids
- C. phospholipid
- D. fluid mosaic model
- E. phospholipid bilayer

## Section Quick Check

### CHAPTER 7

## Section 2: The Plasma Membrane

*After reading the section in your textbook, respond to each statement.*

1. **Identify** three components of the plasma membrane other than phospholipids.

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2. **Describe** the structure of the phospholipid bilayer.

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3. **State** the function of the plasma membrane as it relates to homeostasis.

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4. **Predict** what would happen to a cell if its plasma membrane lost its selective permeability. Explain.

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5. **Clarify** why the surface of the plasma membrane can be described as a mosaic.

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