Name _____ Class_____Date_____

Skills Worksheet

Active Reading

Section: Cell Membrane

Read the passage below. Then answer the questions that follow.

A cell membrane is made of a double layer of **phospholipid** molecules. Each layer is a mirror image of the other layer. The structure is called a **lipid bilayer.**

Located within the lipid bilayer of the cell membrane are proteins of different types. Each type of membrane protein plays a vital role in the life of a cell. Cell-surface markers are membrane proteins that are attached to a carbohydrate on the cell's surface. Together, the protein and carbohydrate help other cells recognize the cell type—liver cell or heart cell, for example. Receptor proteins are membrane proteins that recognize and bind to specific substances outside the cell. When this happens, the inside of the cell changes, as well. In this way, receptor proteins help cells detect and change in response to things in the environment outside the cell. Enzymes are proteins that change the rate of chemical reactions. Various enzymes in the cell membrane are involved in important biochemical reactions inside the cell. Many substances needed inside the cell cannot pass through the cell membrane on their own. Transport proteins are membrane proteins that aid the movement of these substances through the lipid bilayer of the cell membrane. In this way, transport proteins help carry a variety of substances into and out of the cell.

SKILL: USING CONTEXT CLUES

Read each question, and write your answer in the space provided.

1. The prefix *bi-* means "two." Why is the term *lipid bilayer* a good name for a cell membrane?

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2. Why are the proteins described in the second paragraph classified together in a group referred to as membrane proteins?

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SKILL: ORGANIZING INFORMATION

The second paragraph of this passage identifies four different types of proteins found in the cell membrane. Complete the table below by listing each type of protein and its function in the spaces provided.

Type of protein	Function
3.	**4.**
5.	**6.**
7.	**8.**
9.	**10.**

In the space provided, write the letter of the response that best answers the question.

_____ 11. Would you expect a skin cell to have different cell-surface markers than a muscle cell?

a. No; all cells need to mark their outer surfaces.
b. Yes; each different type of cell might need to signal other cells in different ways.
c. No; all cells have an outer membrane formed of a lipid bilayer.
d. Yes; the cell-surface markers would be different because the cells are of different types.