In your textbook, read about maintaining a balance.

Use each of the terms below just once to complete the passage.

glucose	**plasma membrane**	**homeostasis**
organism	**balance**	**selective permeability**

Living cells maintain a **(1)** _____ by controlling materials that enter and leave. Without this ability, the cell cannot maintain **(2)** _____ and will die. The cell must regulate internal concentrations of water, **(3)** _____ , and other nutrients and must eliminate waste products. Homeostasis in a cell is maintained by the **(4)** _____ , which allows only certain particles to pass through and keeps other particles out. This property of a membrane is known as **(5)** _____ . It allows different cells to carry on different activities within the same **(6)** _____ .

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

For each statement below, write <u>true</u> or <u>false</u>.

_____ **7.** The structure and properties of the cell wall allow it to be selective and maintain homeostasis.

_____ **8.** The plasma membrane is a bilayer of lipid molecules with protein molecules embedded in it.

_____ **9.** A phospholipid molecule has a nonpolar, water-insoluble head attached to a long polar, soluble tail.

_____ **10.** The fluid mosaic model describes the plasma membrane as a structure that is liquid and very rigid.

_____ **11.** Eukaryotic plasma membranes can contain cholesterol, which tends to make the membrane more stable.

_____ **12.** Transport proteins span the cell membrane, creating the selectively permeable membrane that regulates which molecules enter and leave a cell.

_____ **13.** Proteins at the inner surface of the plasma membrane attach the membrane to the cell's support structure, making the cell rigid.

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