

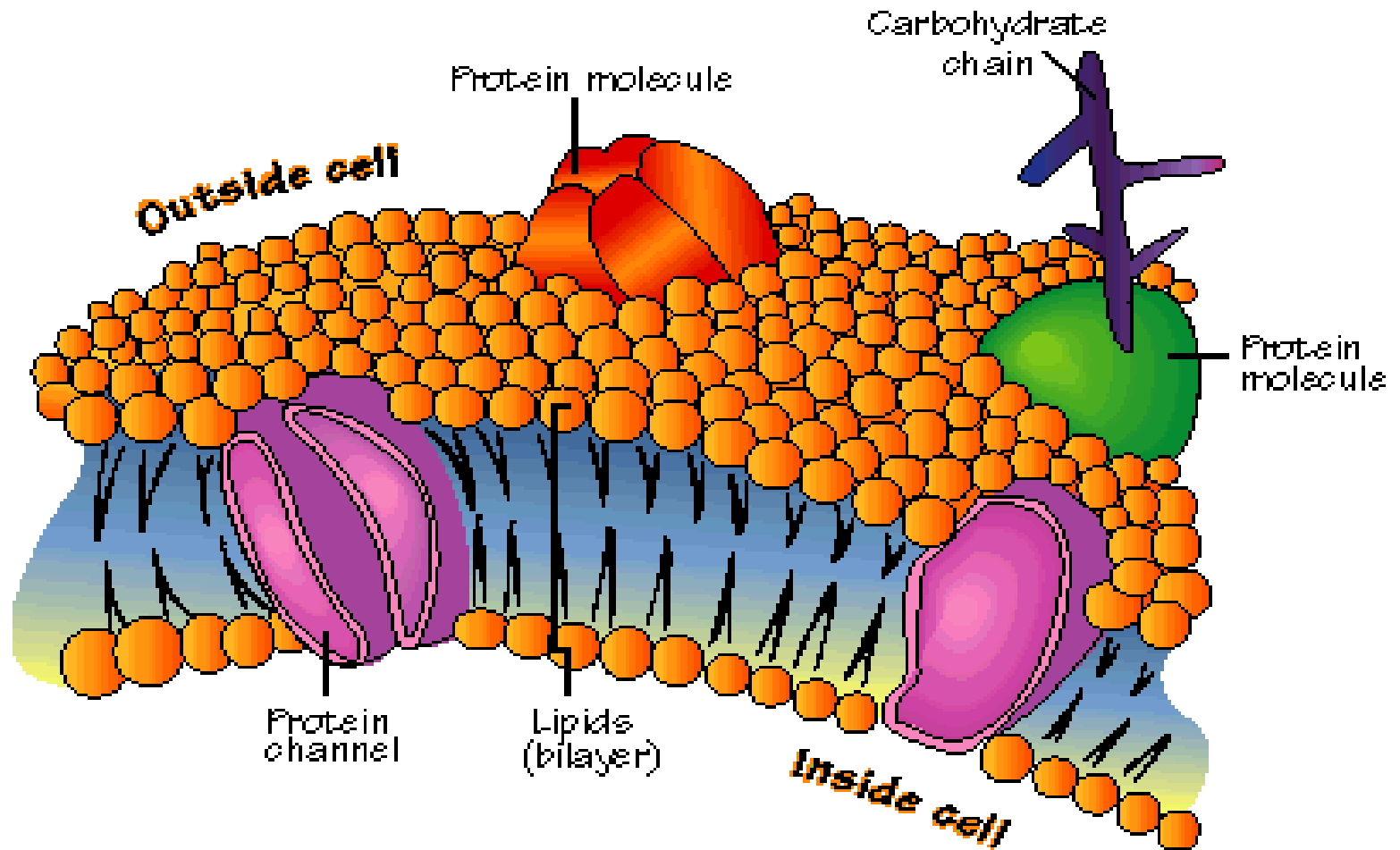
CELL BOUNDARIES

CHAPTER 7

CELL MEMBRANE

- **CELL MEMBRANE (PLASMA MEMBRANE):
REGULATES WHAT ENTERS AND LEAVES THE
CELL AND ALSO PROVIDES PROTECTION AND
SUPPORT.**
 - It is a thin, flexible barrier
- **CELL MEMBRANE STRUCTURE:**
 - Double layer known as a lipid bilayer
 - Gives cells its flexible nature while still controlling a barrier between the cell and its surroundings

CELL MEMBRANE

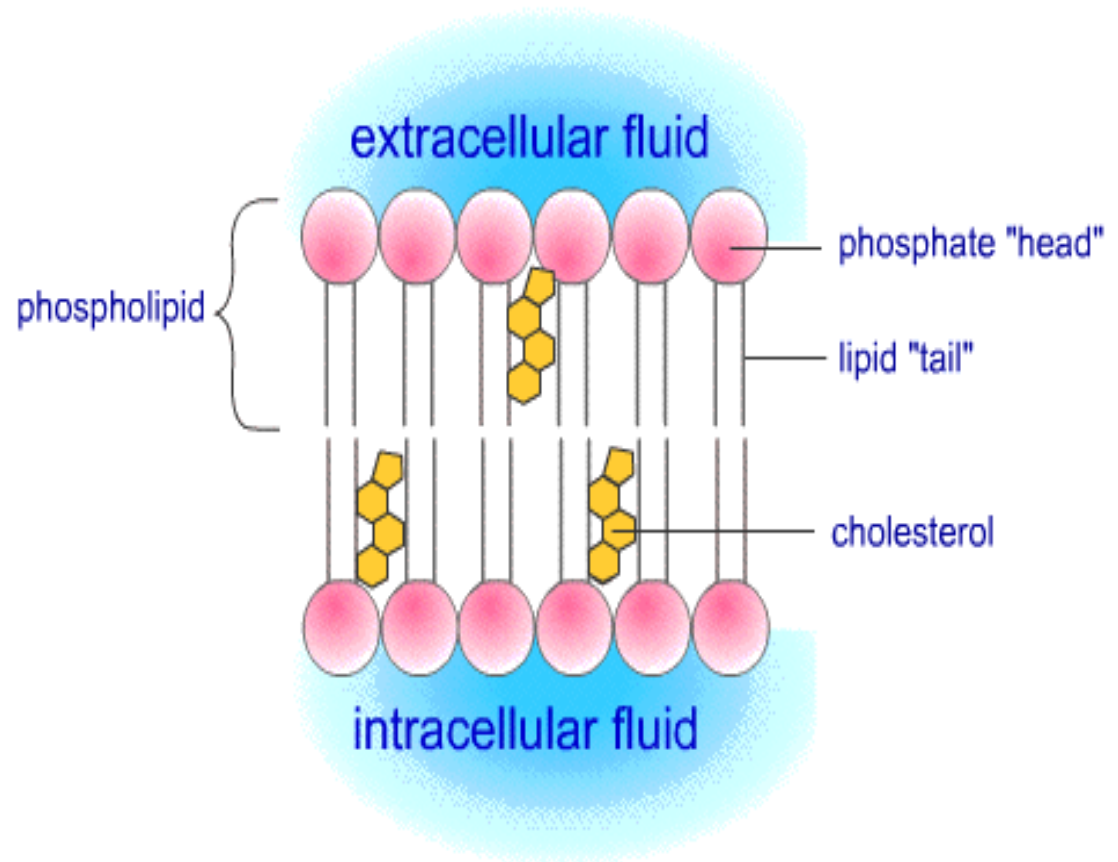


CELL MEMBRANE PARTS

- **THE CELL MEMBRANE IS COMPOSED OF:**
 - A PHOSPHOLIPID BILAYER
 - EMBEDDED PROTEINS
 - ✦ CAN FORM CHANNELS AND PUMPS FOR MOLECULAR TRANSPORT INTO AND OUT OF THE CELL
 - CARBOHYDRATE CHAINS
 - ✦ ATTACH TO THE PROTEINS AND ACT LIKE CHEMICAL IDENTIFICATION CARDS
 - CHOLESTEROL
- **THE CELL MEMBRANE IS KNOWN AS “MOSAIC”**
 - A MOSAIC IS A WORK OF ART MADE OF INDIVIDUAL TILES OR OTHER PIECES ASSEMBLED TO FORM A PICTURE OR DESIGN

PHOSPHOLIPID BILAYER

- THE IMAGE IS SHOWING THE PARTS OF A PHOSPHOLIPID. NOTICE THE FLUID (WATER) NEVER TOUCHES THE TAILS OF THE PHOSPHOLIPID.



SINGLE PHOSPHOLIPID

- NUMBER 1 IS THE HEAD: THE HEAD OF THE PHOSPHOLIPID IS HYDROPHILIC. HYDROPHILIC MEANS IT LIKES WATER.
- NUMBER 2 ARE THE TAILS: THE TAILS ARE HYDROPHOBIC. HYDROPHOBIC MEANS THEY DO NOT LIKE WATER; THEREFOR, WATER WILL BE FOUND IN THIS SECTION OF THE CELL MEMBRANE.

