Name _____ Class/Period _____ Date _____

Cut & Paste Plasma Membrane

Directions:

1. **Color** the structures on the "***Plasma Membrane Structures***" handout.

2. **Cut** around the structures using the dashed lines as a guide.

3. **Arrange** the structures on the "***Plasma Membrane Model***" handout.
   - Use the dashed line on the "*Plasma Membrane Model*" handout as a guide as you position the phospholipid molecules.
   - Use the carbohydrate chains to make at least one *glycoprotein* and at least one *glycolipid*.
   - Think about how to incorporate the proteins into the model. You must include *integral*, *peripheral*, and *transmembrane* proteins.
   - You may use your book or other appropriate resources to help you organize your model. All structures must be correctly incorporated into the model.

4. When satisfied with the arrangement, **glue** all structures in place. Remember, a little glue goes a long way. Too much glue will cause the model to wrinkle.

5. Neatly **label** the following on your plasma membrane model:

   ☐ **Phospholipid**   ☐ **Hydrophilic region**   ☐ **Cholesterol**
   ☐ **Polar head**   ☐ **Integral protein**   ☐ **Carbohydrate chain**
   ☐ **Nonpolar tail**   ☐ **Peripheral protein**   ☐ **Glycolipid**
   ☐ **Hydrophobic region** ☐ **Transmembrane protein**   ☐ **Glycoprotein**

6. **Define** the following terms on the "***Plasma Membrane Model***" handout.
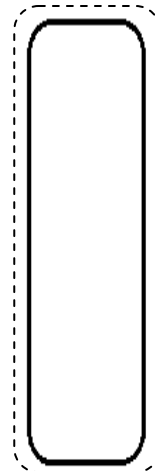
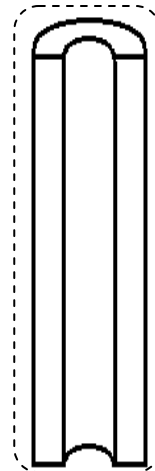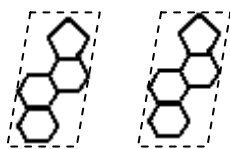   - **Fluid Mosaic Model**

   - **Selectively permeable**
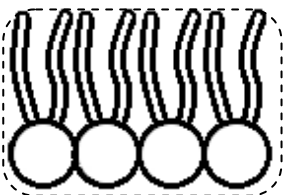
Cut & Paste Plasma Membrane Structures
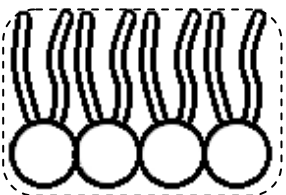
Carbohydrate Chains

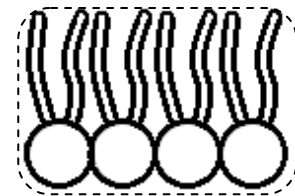Integral Protein

Peripheral Proteins
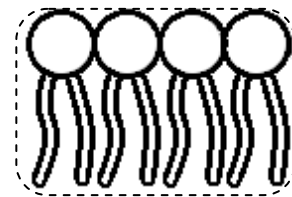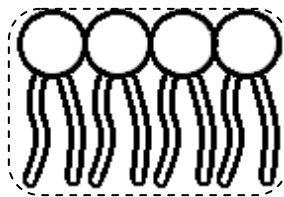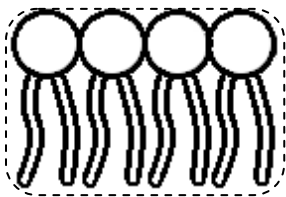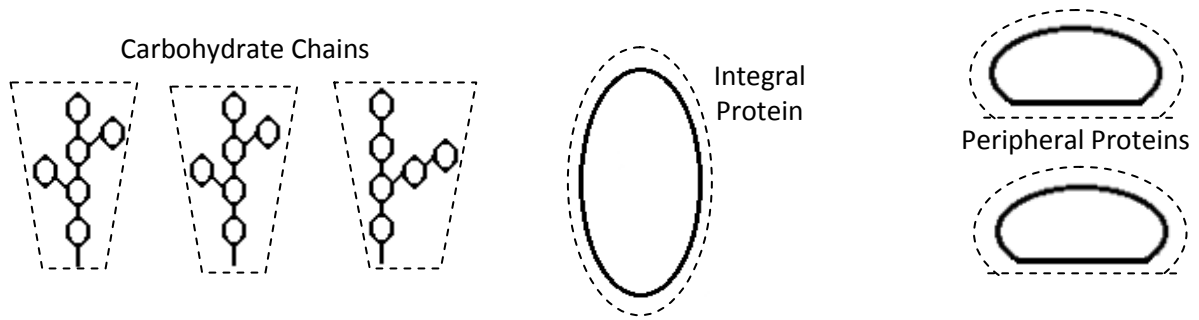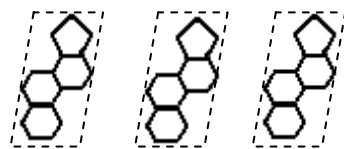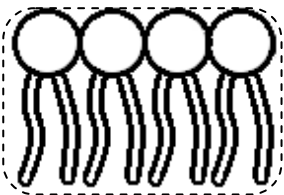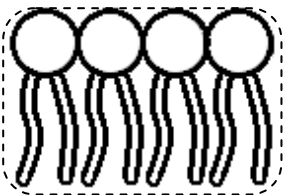
Phospholipids

Cholesterol

Transmembrane Proteins

Phospholipids
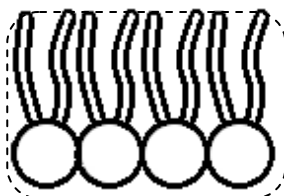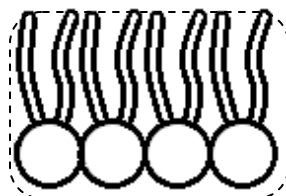
Plasma Membrane Model

Extracellular Space

- .

Intracellular Space

Fluid Mosaic Model - _____

_____

Selectively Permeable - _____

_____

Plasma Membrane Model

Extracellular Space

Glycoprotein

Carbohydrate Chain

Integral Protein

Glycolipid

Polar Head

Hydrophilic

Nonpolar Tail

Hydrophobic

Phospho-lipid

Hydrophilic

Cholesterol

Transmembrane Protein

Peripheral Protein

Intracellular Space
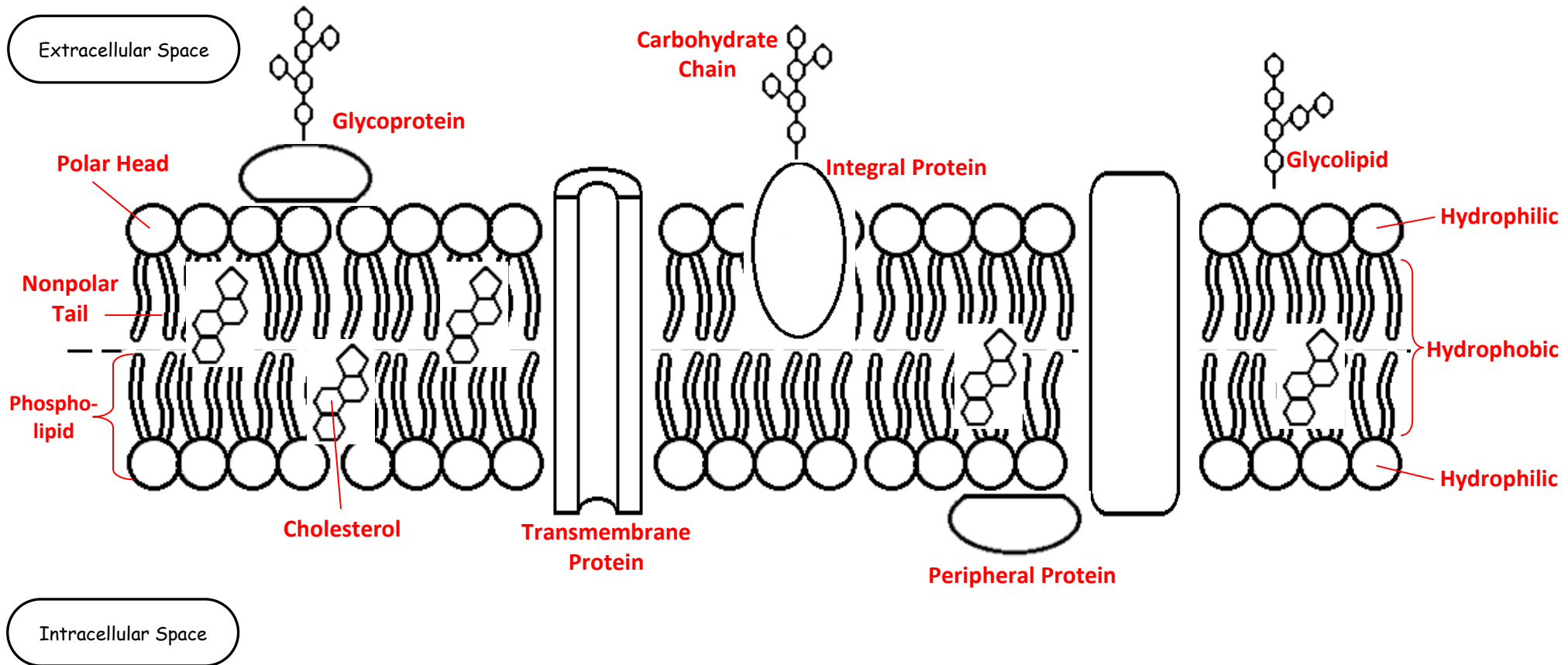
Fluid Mosaic Model – A model describing the plasma membrane as a flexible phospholipid bilayer interspersed with proteins that are free to drift within the membrane.

Selectively Permeable – A property of the plasma membrane that allows some molecules to enter and leave the cell while preventing other molecules from crossing.