

NAME KEY \_\_\_\_\_ DATE \_\_\_\_\_ PERIOD \_\_\_\_\_

## Cell Membrane Coloring Worksheet

### *Composition of the Cell Membrane & Functions*

The cell membrane is also called the plasma membrane and is made of a phospholipid bilayer. The phospholipids have a hydrophilic (water attracting) heads and two hydrophobic (water repelling) tails. The head of a phospholipid is made of an alcohol and glycerol group, while the tails are chains of fatty acids. Phospholipids can move around and allow water and other non-polar molecules to pass through into or out of the cell. This is known as simple diffusion because it does not require energy and the water or molecules are moving with/down the concentration gradient. **SKETCH AND LABEL** a phospholipid coloring the heads red and the tails blue.

PHOSPHOLIPID



Another type of lipid in the cell membrane is cholesterol that makes the membrane more fluid. Embedded in the phospholipid bilayer are proteins that also aid in diffusion and in cell recognition. Proteins called integral proteins go all the way through the bilayer, while perpheral proteins are only on one side. Integral proteins are also called transmembrane proteins. Large molecules like proteins or carbohydrates use proteins to help move across cell membranes. Some of the membrane proteins have carbohydrate parts attached to help cells in recognize each other and certain molecules.