**Date: Name:**

Cell Membranes Worksheet

Instructions: Using a biology textbook, read pages 47 – 49 and +answer the following questions to help you understand the importance of cell membranes to supporting life.

1. Define “cell membrane”, and explain some important roles cell membranes play in supporting life.
2. Define “phospholipid”, and DRAW a phospholipid molecule. Label all important parts of the molecule.
3. Define “phospholipid bilayer”, and DRAW a phospholipid bilayer. Label all important parts of the structure, including any structures found in and around the phopholipid bilayer.
4. Describe “hydrophilic heads”, and explain the importance of hydrophilic heads for the phospholipid molecule in a way that makes sense to you.
5. Describe “hydrophobic tails”, and explain the importance of hydrophobic tails for the phospholipids molecule in a way that makes sense to you.
6. Fill a container with water, and then pour a small amount of vegetable oil (a lipid), in the water. Take a toothpick, and then experiment with the oil in the water. Add food coloring as desired, and see what you can learn about the way that lipids interact with water. Describe your observations below in detail.
7. Cell membranes contain membrane proteins found within the layer. Describe at least four functions of membrane proteins and explain why each is important to the cell.
8. Based on what you have learned today, summarize the importance of cell membranes to supporting life.