



Building a Model of a CELL MEMBRANE with Phospholipids

Name: _____

Date: _____

Lab Partner (if any): _____

In this experiment, you will build a model of the cell membrane using phospholipids to see how they form a bilayer that helps cells control what goes in and out.



QUESTION

How do phospholipids arrange themselves in water to form a model of the cell membrane?



HYPOTHESIS

I think phospholipids will _____

because _____



MATERIALS

- 1 shallow clear dish or pie plate
- Water
- Phospholipid model kit (e.g., sets with hydrophilic heads and hydrophobic tails)
- Droppers or small spoon
- Food coloring (optional)
- Tongs or tweezers (optional)
- Paper towels



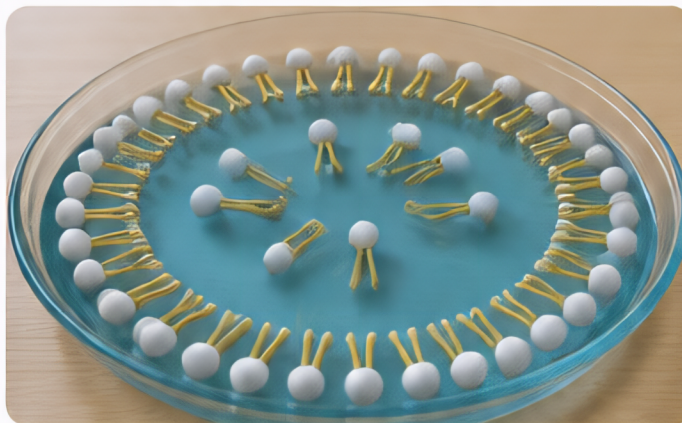
SAFETY

- Do not eat any materials.
- Keep materials out of reach of young children.
- Clean up spills right away.
- Wash hands when finished.



PROCEDURE

1. Fill the shallow dish with water.
2. (Optional) Add 1–2 drops of food coloring and gently swirl.
3. Sprinkle a few phospholipid pieces onto the surface of the water.
4. Watch how the pieces move and arrange themselves.
5. Add more phospholipids if needed to see the pattern more clearly.
6. Use tongs or a dropper to gently move pieces and observe what happens.
7. Draw what you observe in the space below.



Hydrophilic Head
(attracted to water)

Hydrophobic Tails
(avoid water)

OBSERVATIONS – Draw what you see



ANALYSIS

1. How did the phospholipid pieces arrange themselves in the water?

2. What do the heads of the phospholipids appear to be doing?

3. What do the tails of the phospholipids appear to be doing?

4. How does this model help cells?



CONCLUSION

Write a conclusion that answers the question:

I learned that _____

