Name _____ Date _____ Period _____

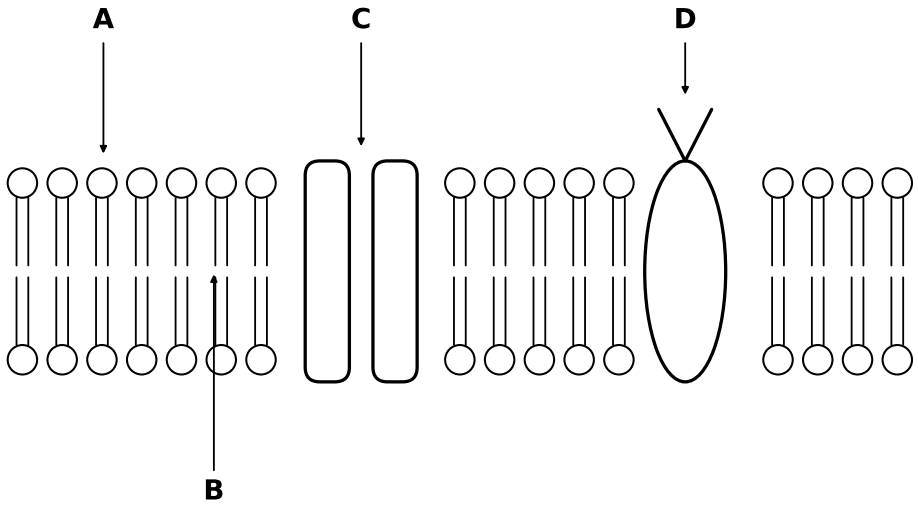
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The Cell Membrane

Biology

Answer in complete sentences. Use the tables, graphs, and drawings as evidence.

1. The drawing shows part of a cell membrane. Name structures A, B, C, and D.



A _____ B _____

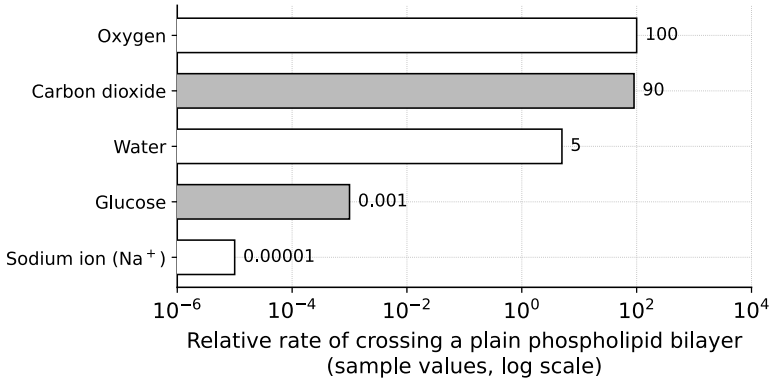
C _____ D _____

2. Predict whether each substance can cross the bilayer without a protein. Explain each prediction.

Substance	Crosses the bilayer without a protein? (yes or no)	Explain
Carbon dioxide (small, nonpolar)		
Glucose (large, polar)		
Sodium ion (charged)		

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3. The graph shows how fast five substances cross a plain phospholipid bilayer (sample values).



Write a claim, evidence, and reasoning about which substances cross easily.

4. Explain why a phospholipid bilayer blocks ions. Use the words hydrophobic and nonpolar.

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