B2.1 Membranes and membrane transport (HL)

What the Cell · DP Biology · note-taking sheet · HL statements B2.1.11–17

Name _____ **Date** _____

How to use this sheet: go through the slides and videos with it, then close them and write from memory. Use your own words and add page numbers from the book (pp. 237–243) where you want more detail.

Guiding questions. How do lipid and protein molecules come together to form membranes? What decides whether a substance can cross a membrane?

B2.1.11–12 Fluidity

	Saturated tails	**Unsaturated tails**
Shape and packing		
Effect on fluidity		

How do some animals adjust their membranes to temperature? Give an example.

Sketch a cholesterol molecule in a bilayer. Explain its effect at low and at high temperature.

B2.1.13 Vesicles

Why does fluidity allow vesicles to form and fuse? One example each of endocytosis and exocytosis.

B2.1.14–15 Channels and pumps

	Voltage-gated	Neurotransmitter-gated
Opened by		
Example		
Ions		

Draw the sodium-potassium pump cycle in four steps. Show where ATP is used.

B2.1.16–17 Cotransport and adhesion

Draw an intestinal cell showing the Na^+/K^+ pump, the glucose cotransporter and the exit of glucose. Why is this called indirect active transport?

What are CAMs? Roles of tight, anchoring and gap junctions.

Before you finish

Tick the ones you can explain without notes. Circle anything to ask about.

- ☐ Saturated and unsaturated tails
- ☐ Homeoviscous adaptation
- ☐ Cholesterol
- ☐ Endocytosis
- ☐ Exocytosis
- ☐ Voltage-gated channels
- ☐ Nicotinic receptor
- ☐ Na^+/K^+ pump
- ☐ Cotransport
- ☐ Indirect active transport
- ☐ CAMs
- ☐ Cell junctions