

Getting In and Out of a Cell

7th Grade

Three ways substances cross the membrane, and which costs energy.

The cell membrane is selectively permeable. How something crosses depends on the direction and the size.

Process	Direction	Energy?
Diffusion	high to low concentration	no
Osmosis	water, high to low water conc.	no
Active transport	low to high — against the gradient	yes

Going downhill is free. Going uphill costs energy. That is the whole distinction.