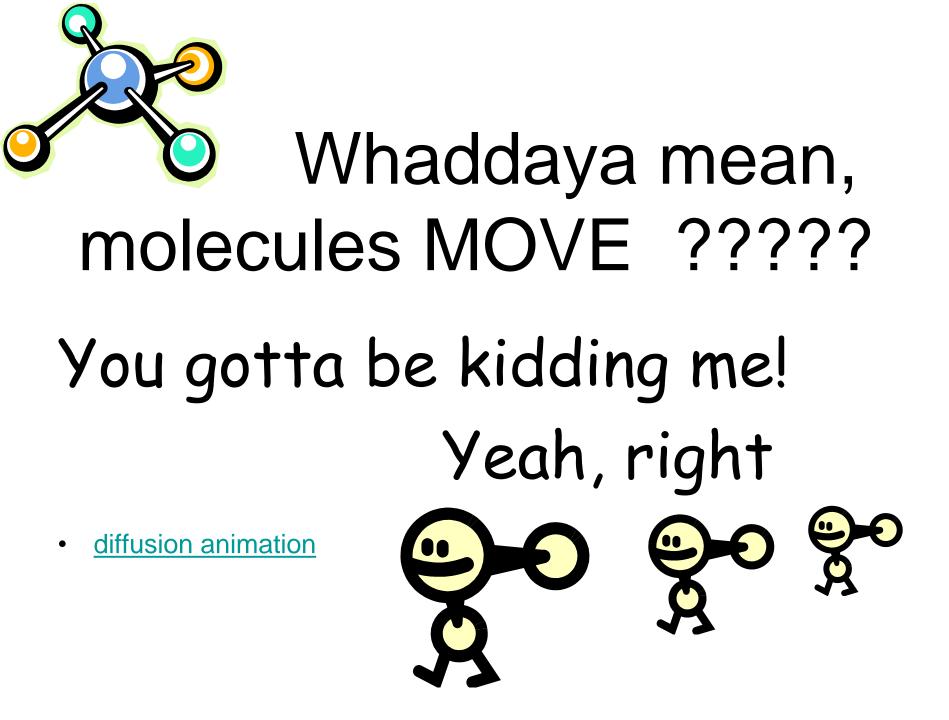
# How do molecules move around?

Diffusion is the movement of molecules from

a



### To go into or out of a cell by diffusion or osmosis (\_\_\_\_\_)

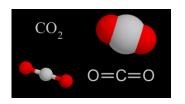
#### A molecule must be . . .

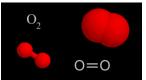
- The right \_\_\_\_\_to pass through an opening
- The right \_\_\_\_\_\_ to pass through an opening
- Going from a \_\_\_\_\_ concentration

#### **Cell membranes must have**

 Small openings for small molecules







 Medium openings for medium molecules



 And the BIG stuff is a whole other story!!

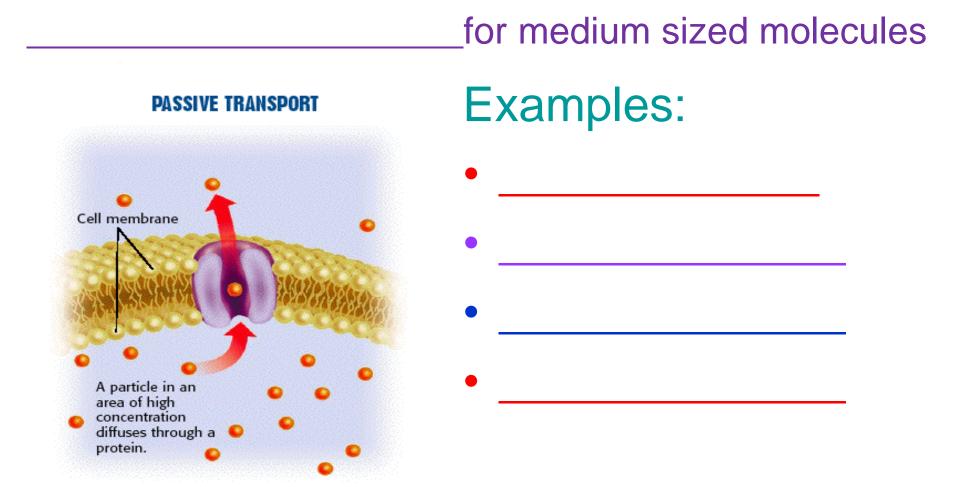
## SMALL openings in between phospholipids for small molecules:

extracellular fluid (watery environment) phospholipid	– hydrophilic heads	Examples:
I POPT	hydrophobic tails	
bilayer	hydrophilic heads	
cytoplasm (watery environment)	nin androp og po den aster tinente den later <b>portee</b> rs hum den porteers	

#### The movement of



#### from a \_\_\_\_\_\_to a \_\_\_\_\_concentration through a \_\_\_\_\_



- Materials moving \_
- Examples:
- Diffusion
- Osmosis



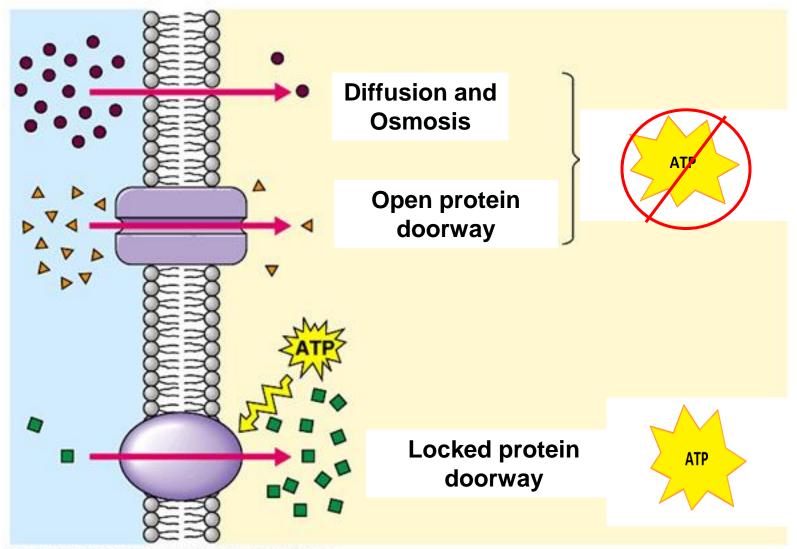
- Open protein doorways (channels)
- \*from a high to a low concentration

#### 'Protein Doorway'

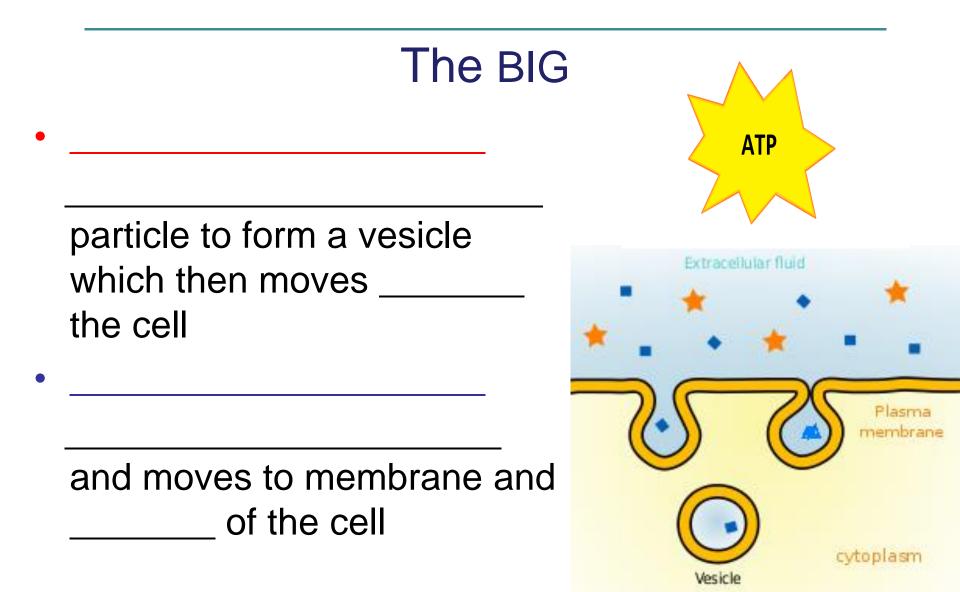
for LARGE molecules

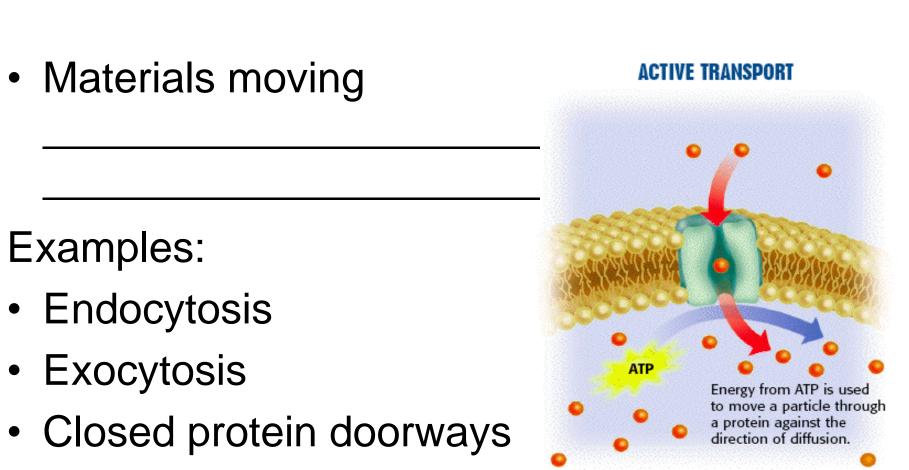
ATP

- Needed for molecules going trom a to \_\_\_\_\_ concentration (\_\_\_\_\_ diffusion)
- Active = uses up

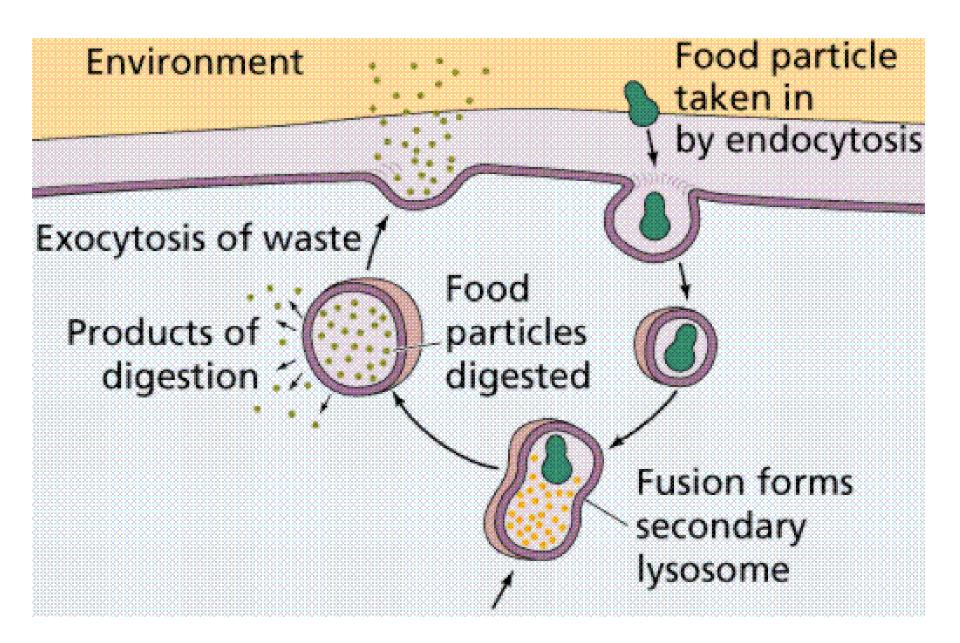


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(from a low to a high concentration



#### **The Cell Membrane**

#### The cell membrane is

"

# It controls what enters and leaves the cell.

#### **The Cell Membrane**

