Passive Transport

<u>_earning Targets:</u>

- Compare and contrast different types of passive transport.
- Explain how materials diffuse across a semipermeable membrane.



Recall: What is passive transport?

What are the different types of passive transport?

Diffusion

- Movement of materials from an area of high concentration to low concentration.
 - occurs naturally
 - does not require energy
 - due to random motion of molecules

How does diffusion work?

BEFORE...

AFTER...



Equilibruim!

What factors affect diffusion?

Temperature: As the temperature increases, the rate of diffusion increases.

Concentration: As the concentration increases, the rate of diffusion increases.

Pressure: As the pressure increases, the rate of diffusion increases.

Size of Molecules: As the size of the molecule increases, the rate of diffusion decreases.

What is Facilitated Diffusion?

Facilitated Diffusion: is a specific type of diffusion using PROTEINS to transport large or charged molecules into the cell.

• This type of transport is passive, no energy is required.





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