

# Passive vs. Active Transport

	<b>Diffusion</b>	<b>Osmosis</b>	<b>Facilitated Diffusion</b>	<b>Gated Channel</b>	<b>Pumps</b>	<b>Endocytosis/ Exocytosis</b>
<b>Direction</b>	High to Low	High to Low	High to Low	High to Low	Low to High	N/A
<b>Transport Mechanism</b>	Pores	Pores Aquaporins	Channels & Carrier Proteins	Gated Channels	Pumps	Membrane
<b>Energy Required?</b>	No	No	No	No	Yes	Yes
<b>Size &amp; Type of Particle</b>	small nonpolar	water	small-medium polar or nonpolar	small-medium polar or nonpolar	ions	small-large polar or nonpolar
<b>Examples of Particles</b>	CO <sub>2</sub> , O <sub>2</sub>	H <sub>2</sub> O	Glucose, Fructose, Na <sup>+</sup> , Ca <sup>+2</sup>	Glucose, Fructose, Na <sup>+</sup> , Ca <sup>+2</sup>	Na <sup>+</sup> , K <sup>+</sup> , H <sup>+</sup>	food, waste