Microbial Motility

A look at the various aspects of bacterial motility. Notice how motility is achieved by balancing "runs" and "tumbles" (see "monotrichous" portion of animation). This is especially evident during bacterial "taxis."

Q1 – What is taxis to light referred to?

Q2 – What is the result on bacterial motility when a flagellum rotates counterclockwise?

Membrane transportation

Overview of how molecules move across membranes. Click on the numbers at the top (referred to as scenes) to view more. Scene 2 describes the passive processes, Scene 3 describes active processes. You can click on the names to see and hear more.

Q1 – How are simple diffusion and facilitated diffusion similar? How are they different? Q2 – How is active transport different from facilitated diffusion? How are they similar? Q3 – How are uniport, antiport and symport similar? How are they different?

<u>Osmosis</u>

This is a nice animation to see the effects of isotonic, hypertonic, and hypotonic environments on a cell (the large, light blue circle). The blue balls are water molecules, the orange balls are solutes.

Q1 – Define isotonic, hypertonic, and hypotonic. Use the terms solute, solution.

Q2 – A potato weighs 10g. You place the potato in a 20% salt solution for on hour. After this time, the potato weighs 7.5 g. Explain.