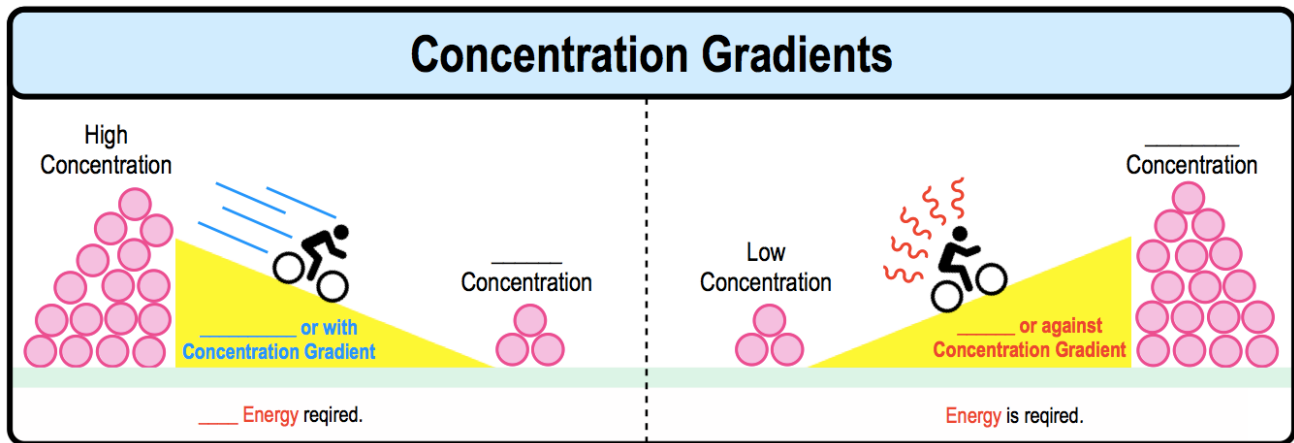


CONCEPT: CONCENTRATION GRADIENTS & DIFFUSION

- **Concentration Gradient:** _____ in the *concentration* of a substance between _____ areas.
 - A molecule moves _____ (or *down*) its gradient when going from an area of *high* to *low* concentration.
 - A molecule moves _____ (or *up*) its gradient when going from an area of *low* to *high* concentration.

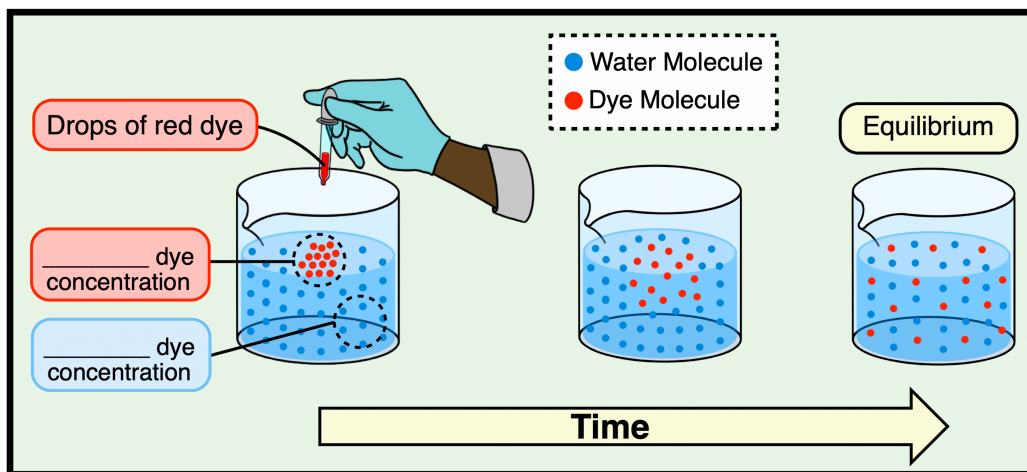
EXAMPLE: Concentration gradients.



Diffusion

- The movement of a substance from an area of _____ concentration to an area of _____ concentration.
 - Molecules have natural tendency to *diffuse* _____ (down) their *concentration gradients* (from *high* to *low*).

EXAMPLE: Diffusion of a Dye in Water.



PRACTICE: Which of the following statements about diffusion is true?

- It's a process where water moves across a semi-permeable membrane to a region of high solute concentration.
- It requires an expenditure of energy by the cell.
- It's a process where molecules move from a region of lower concentration to a region of higher concentration.
- It's a process where molecules move from a region of higher concentration to a region of lower concentration.