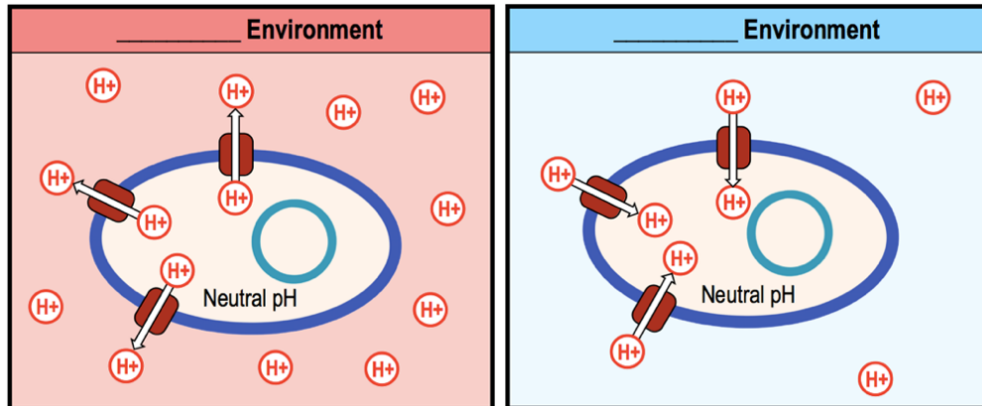


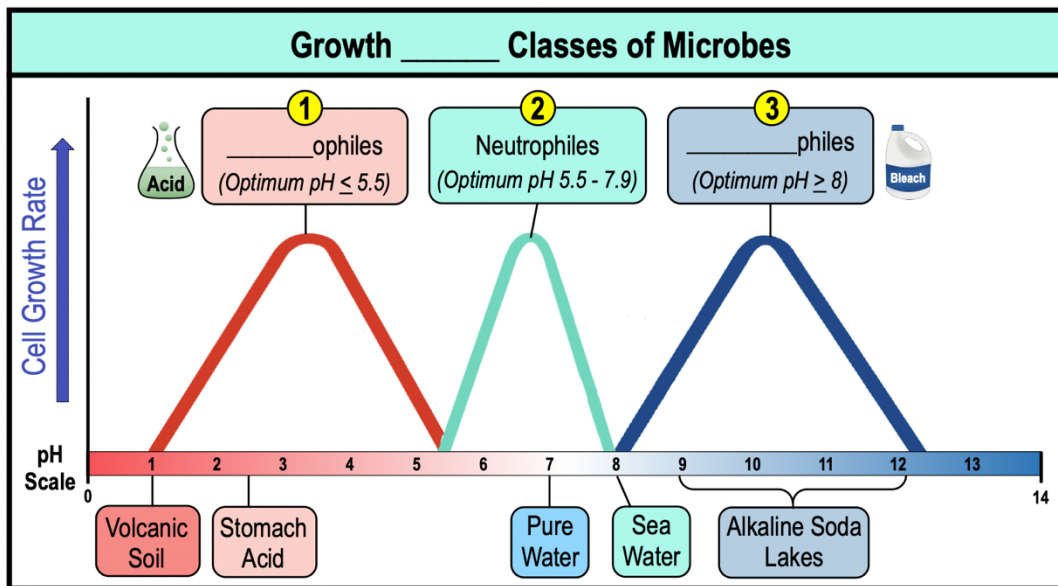
CONCEPT: pH REQUIREMENTS FOR MICROBIAL GROWTH

- Similar to temperature, microbes grow in a _____ of pH values.
 - Inside this range is the _____ pH value at which the species grows *most rapidly*.
- Despite the pH of the surrounding environment, cells maintain an *internal* pH near _____.
 - Microbes that live in *acidic* environments have mechanisms that pump protons _____ of the cell.
 - Microbes that live in *alkaline (basic)* environments have mechanisms that pump protons _____ the cell.



Optimal Growth pH Classes of Microbes

- Microbes are classified into _____ groups based on their optimum pH range:



PRACTICE: The optimum pH for an alkaliphile would be at:

- a) pH 10. b) pH 3. c) pH 7. d) pH 5.

PRACTICE: A bacterium that thrives in your stomach is probably a(n):

- a) Psychrophile. b) Neutrophile. c) Alkaliphile. d) Acidophile.