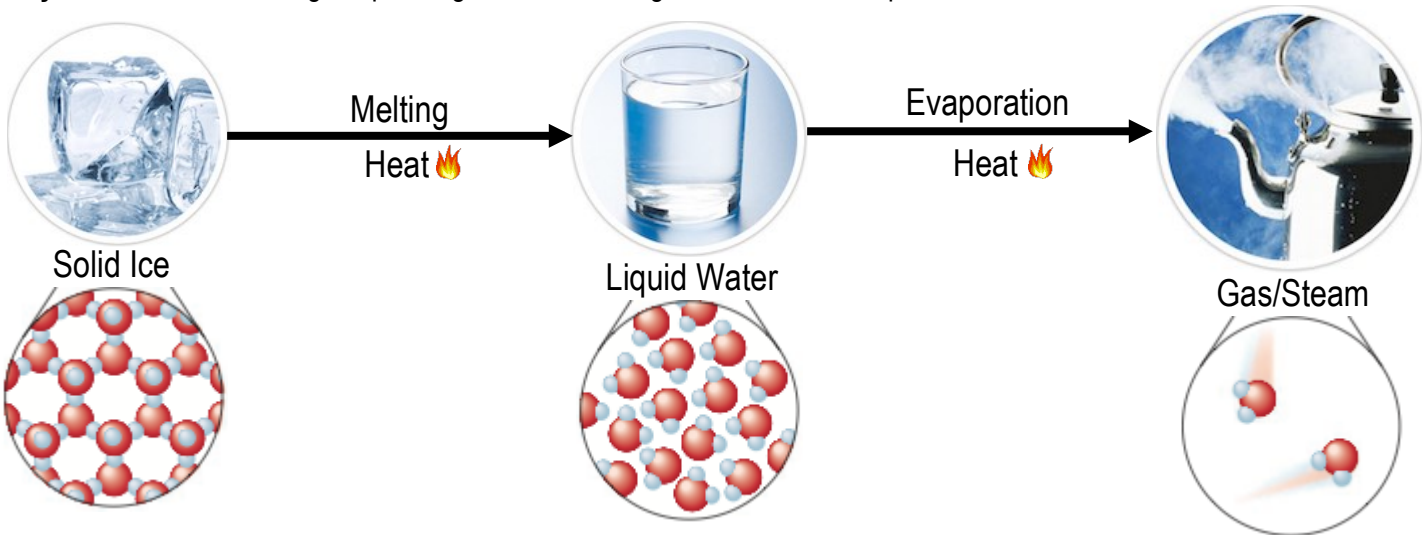


CONCEPT: WHAT IS BIOCHEMISTRY?

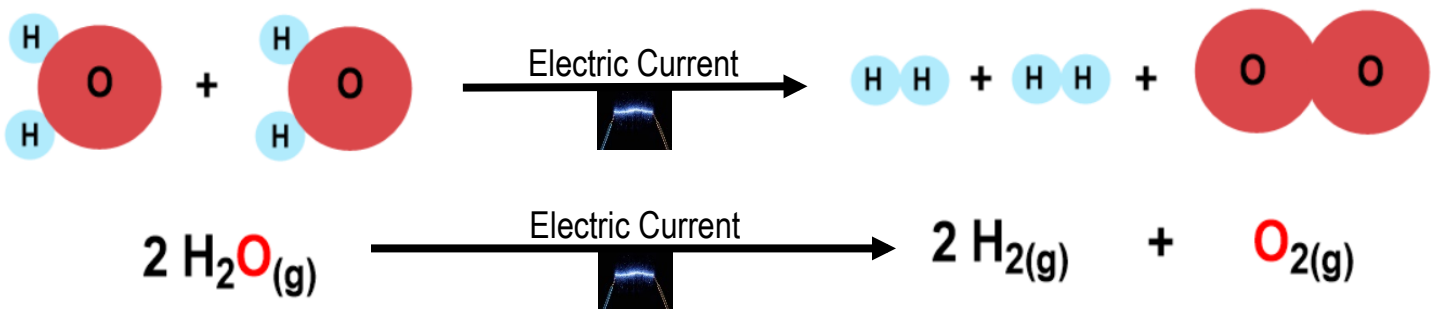
- Biochemistry seeks to answer fundamental questions like “What are we made of?” and “How do we work?”
- Biochemistry: study of structures and _____ & _____ processes that occur in *living* organisms.
 - Physical processes: no changes in chemical composition.
 - Chemical processes: changes in chemical composition.

EXAMPLE: Physical vs. Chemical Processes

Physical Process: Melting/evaporating water: No changes in chemical composition.



Chemical Process: Electrolysis of water: Changes in chemical composition.



- Biochemistry is a multidisciplinary subject (biology, general/organic chemistry, physics, etc.) & all topics are interrelated.
 - The interrelated topics make it challenging to present one topic without referring to others.
 - There is no universally accepted sequence of topics that suits every course.
- The potential applications of Biochemistry are ENORMOUS!
 - Medical
 - Agricultural
 - Nutrition
 - Industry
 - Technology
 - Life

CONCEPT: WHAT IS BIOCHEMISTRY?

PRACTICE: Which of the following is a chemical process?

- a) Freezing water
- b) Tearing paper
- c) Rotating the bonds of a molecule
- d) Mixing acids and bases

PRACTICE: Which of the following is a physical process?

- a) Digesting food in the stomach
- b) Rusting of iron
- c) Baking a cake
- d) A protein chain folding