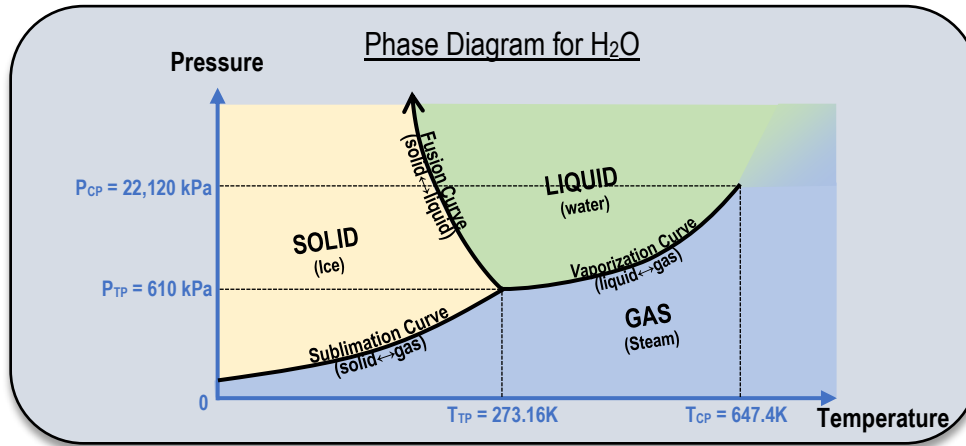


CONCEPT: PHASE DIAGRAMS

- **Phase Diagram** = diagram showing possible phases of a substance as a function of _____ and _____.
 - Every substance has a unique phase diagram



- There are two important points you need to know in phase diagrams:
 - 1) **Triple Point** (where the 3 curves meet) = point where all 3 phases _____.
 - 2) **Critical Point** (tip of Vapor. Curve) = point where substance is BOTH liquid & gas. We call this a _____.

EXAMPLE: You have a sample of H₂O at 250K at atmospheric pressure (1,010 kPa). **a)** What phase is this sample in? **b)** What phase change occurs first if you were to *increase* the temperature while keeping the pressure constant? **c)** What phase change occurs first if you were to *decrease* the pressure while keeping the temperature constant?