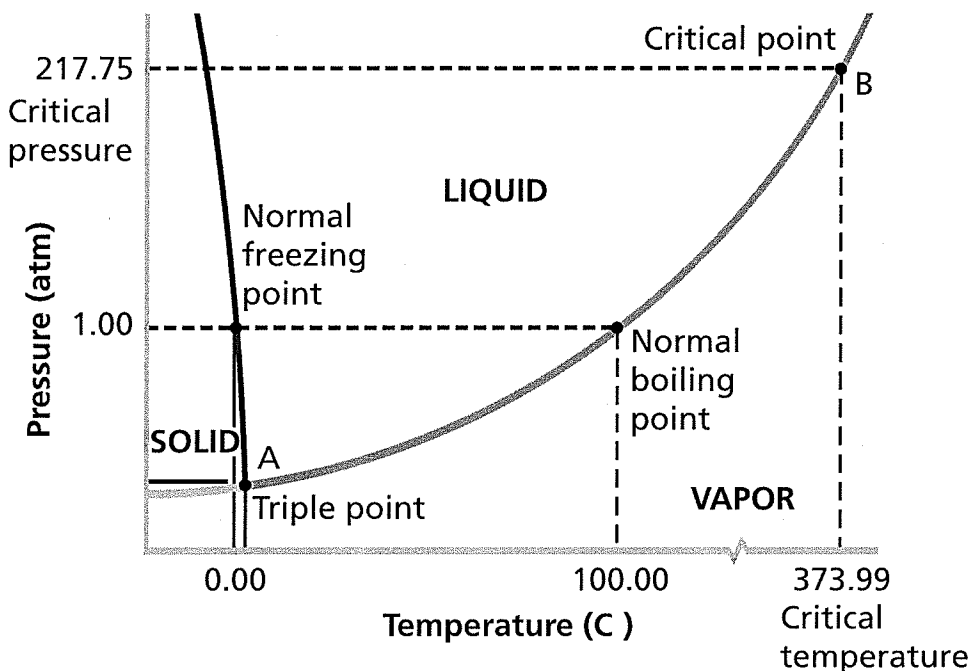


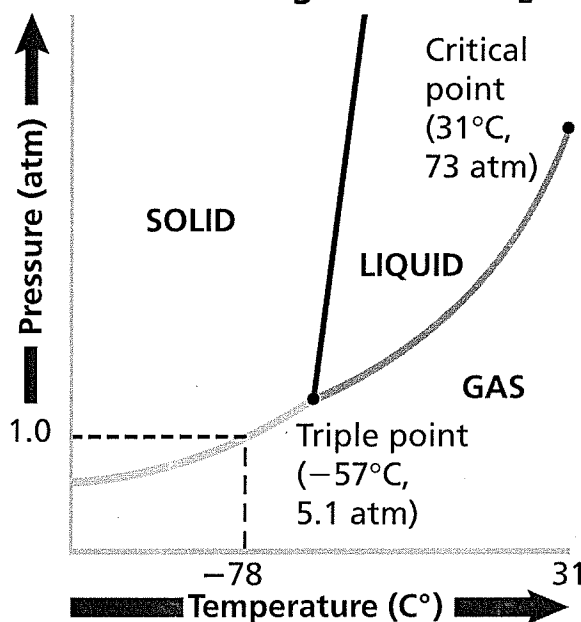
Phase Diagrams

Use with Chapter 12,
Section 12.4

Phase Diagram for H₂O



Phase Diagram for CO₂



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TEACHING TRANSPARENCY WORKSHEET**38**

Phase Diagrams

Use with Chapter 12,
Section 12.4

1. What variables are plotted on a phase diagram?

2. How many phases of water are represented in its phase diagram? What are they?

3. Use the phase diagram for water to complete the following table.

Temperature (°C)	Pressure (atm)	Phase
200	1	
-2	1	
150	100	
-2	0.001	
30	0.8	
	1	liquid
100.00		vapor

4. What phases of water coexist at each point along the red curve?

5. What two phase changes occur at each point along the yellow curve in the phase diagram for water?

6. Look at the phase diagram for carbon dioxide. Above which pressure and temperature is carbon dioxide unable to exist as a liquid?

7. At which pressure and temperature do the solid, liquid, and gaseous phases of carbon dioxide coexist?
