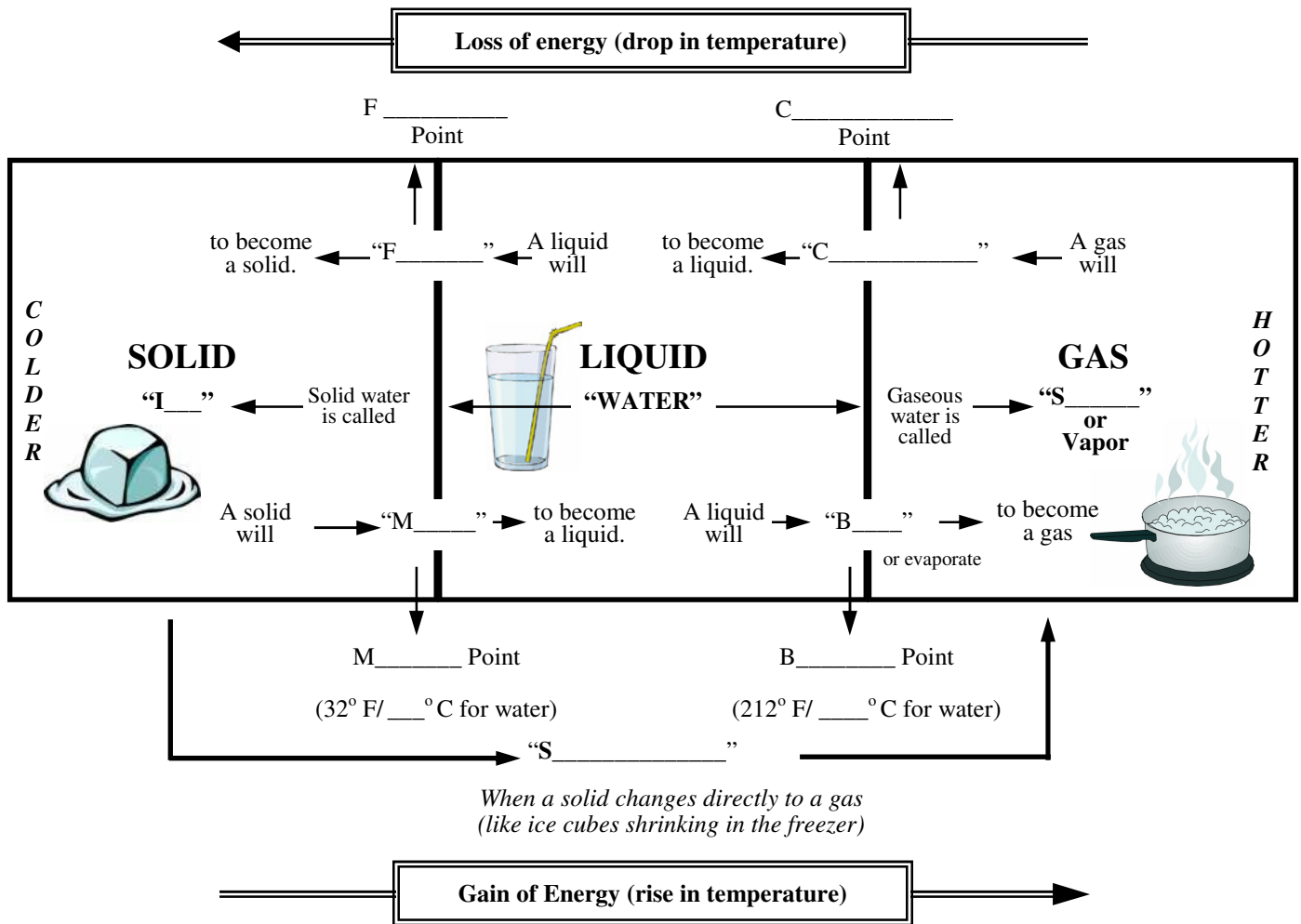


15) Fill in the blanks to help you better understand states of matter vocabulary.



16) 18 kg of gold at 80°C is dropped into 20 kg of water originally at 10° C. At what temperature will they come to thermal equilibrium?

- A. What two things the same for both objects?
B. Solve for the final temperature:

$$-Q_{\text{hot}} = Q_{\text{cold}}$$

$$m_h c_p (T_f - T_i)_h = m_c c_p (T_f - T_i)_c$$

$$18(129)(T_f - 80) = 20(4186)(T_f - 10)$$