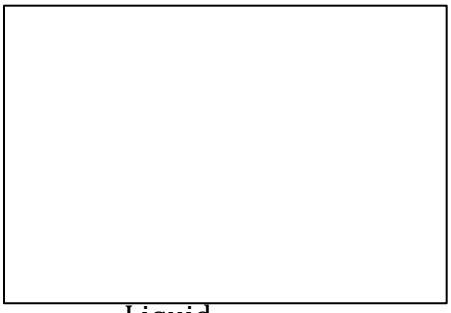
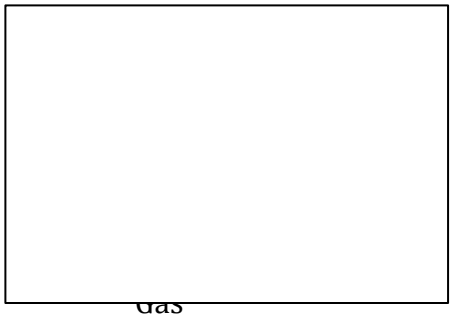
In the boxes below draw a molecular representation of solid, liquid, and gaseous water (H_2O).

Solid



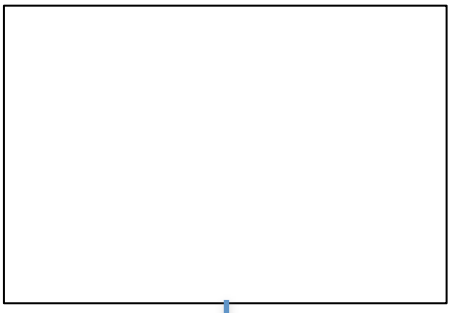
Liquid



Gas

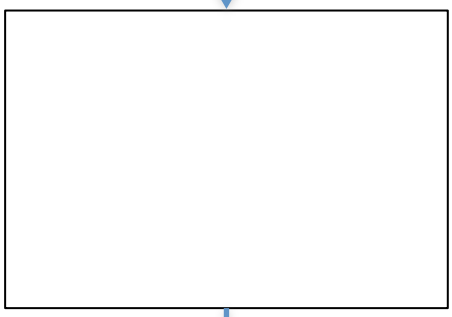
To change from solid to liquid to gas you have to raise the temperature. Why? What is happening on the molecular level as the water changes from one state to another.

In the box below draw a molecular representation of solid water, ice, $H_2O(s)$.



Explain what your diagram shows:

When ice is heated it liquefies. Draw a picture of what that looks like at the molecular level.
Explain what is happening at the molecular level during this process



Now imagine the liquid is heated up to its boiling point (100 C). Draw a picture of what that looks like at the molecular level.
Explain what is happening at the molecular level during this process