

Boiling in a Syringe Worksheet

Questions

1. Record all observations.

	Observations
Water in syringe before any action	
Water in syringe after plunger pulled back	

2. What happened after the syringe plunger was pulled back? Explain!

3. Why does the observation described above slow down after 45 seconds?

4. The following graph represents the phase diagram of water.

a. Label the *y*-axis: Pressure (atm)

b. Label the *x*-axis: Temperature °C

c. Make a dot on the diagram representing the data values and observations of the water in the syringe before the plunger was pulled back. Label this data point A.

d. Make a dot on the diagram representing the data values and observations of the water in the syringe after the plunger was pulled back. Label this data point B.

e. Looking at data point B—if the pressure remains constant, what would need to happen for the water to return to a completely liquid state? Mark a new data point C representing this action.

5. Give an example how pressure affects the boiling point of water and provide a practical example.