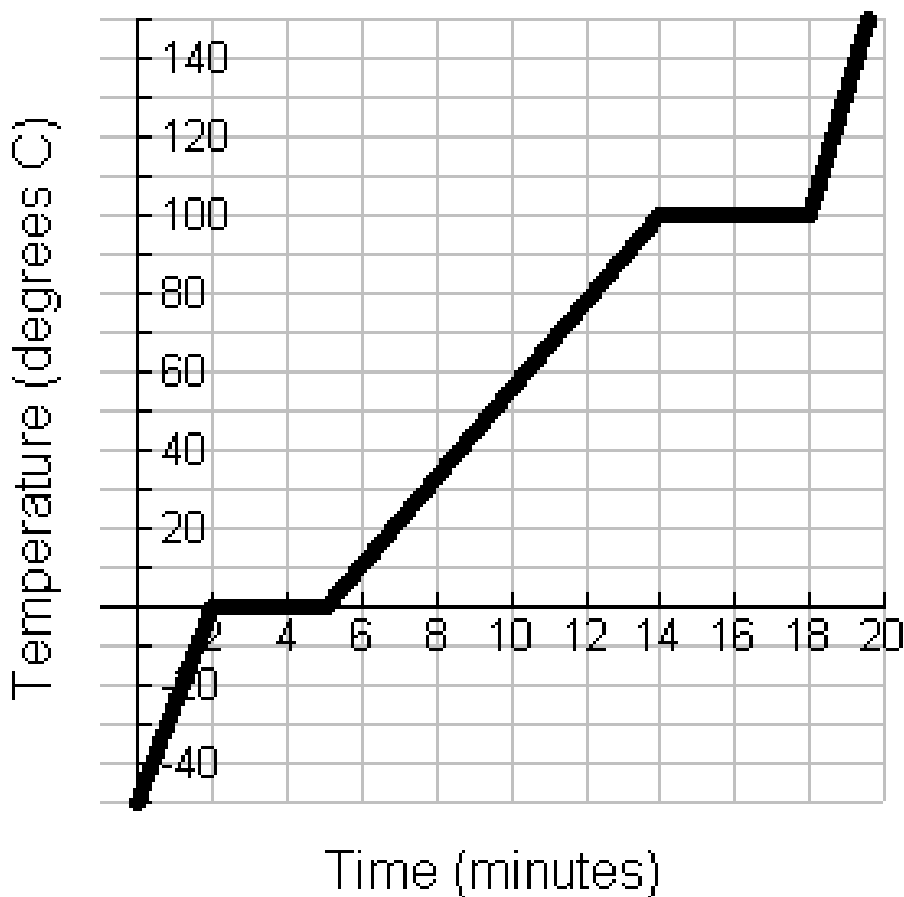


# Phase Change Diagram Heating Curve

Below is a phase change diagram for H<sub>2</sub>O being heated from -50 °C to 150 °C.

## Temperature vs. Time



1. Label what phase of matter is present and explain what is occurring in each section of the graph.

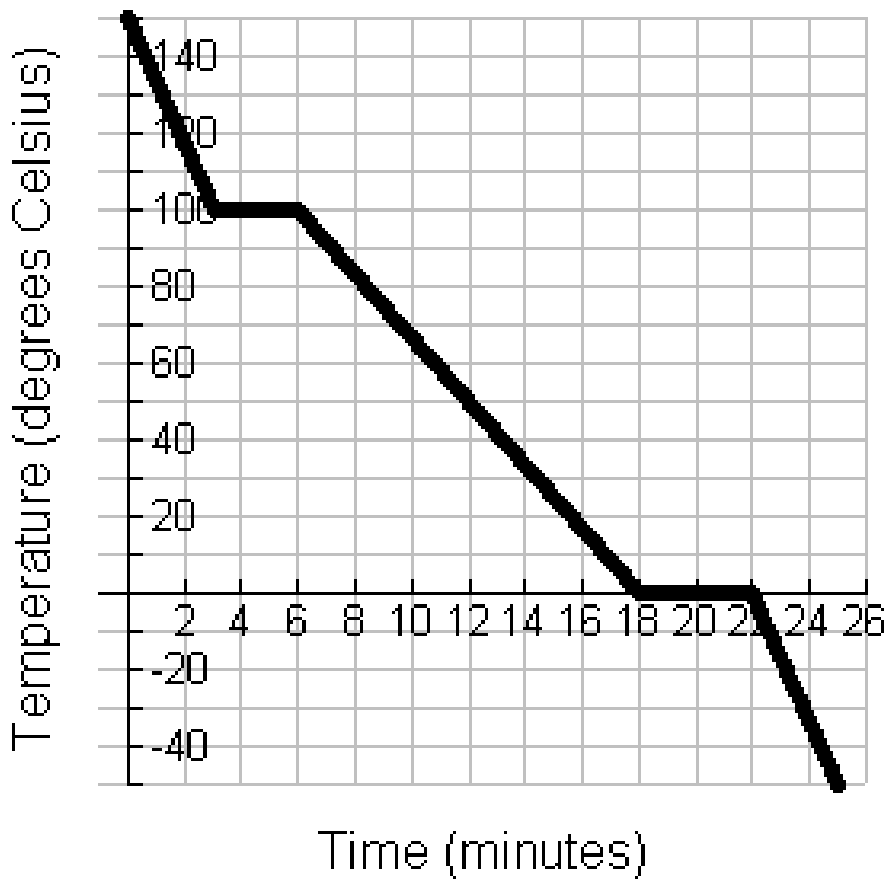
Time Interval (min)	Phase(s) of Matter Present	What is happening?
0 to 2		
2 to 5		
5 to 14		
14 to 18		
18 to 20		

- According to this graph, what temperature should be associated with the melting and boiling points of H<sub>2</sub>O?
- From the graph is the value of the specific heat greatest as a solid, a liquid, or a gas for H<sub>2</sub>O?

# Cooling Curve

Below is a phase change diagram for H<sub>2</sub>O being heated from 150 °C to - 50 °C.

## Temperature vs. Time Graph



4. Label what phase of matter is present and explain what is occurring in each section of the graph.

Time Interval (min)	Phase(s) of Matter Present	What is happening?
0 to 3		
3 to 6		
6 to 18		
18 to 22		
22 to 25		

5. According to this graph, what temperature should be associated with the freezing and condensation points of H<sub>2</sub>O?
6. The freezing point is the same temperature as the \_\_\_\_\_ point
7. The condensation point is the same temperature as the \_\_\_\_\_ point.