

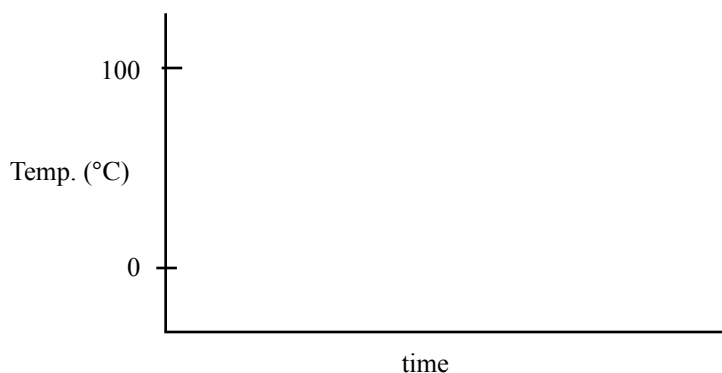
## Lab: The Heating Curve of Water

**Question: What is the shape of the heating curve of water?**

### 1. Hypothesis

If ice water is heated, then while the ice is melting, or the water boiling, the temperature of the water will... [circle choice] increase or remain constant.

Draw the overall shape of the curve you expect to obtain:



### 2. Variables

Independent variable: \_\_\_\_\_ Dependent variable: \_\_\_\_\_

Controlled Variables \_\_\_\_\_

### 3. Data Collection and analysis (on back...)

### 4. Conclusion

1. What happened to the temperature of the water while the ice was melting?

\_\_\_\_\_

2. What happened to the temperature of the water after all the ice had melted?

\_\_\_\_\_

3. What happened to the temperature of the water when it began to boil?

\_\_\_\_\_

**3. Data Collection and Analysis** [Heat until the water has boiled for at least 5 minutes!]

Time (min)	Temp. (°C)	Time (min)	Temp. (°C)	Time (min)	Temp. (°C)	Time (min)	Temp. (°C)	Time (min)	Temp. (°C)
0		5.0		10.0		15.0		20.0	
0.5		5.5		10.5		15.5		20.5	
1.0		6.0		11.0		16.0		21.0	
1.5		6.5		11.5		16.5		21.5	
2.0		7.0		12.0		17.0		22.0	
2.5		7.5		12.5		17.5		22.5	
3.0		8.0		13.0		18.0		23.0	
3.5		8.5		13.5		18.5		23.5	
4.0		9.0		14.0		19.0		24.0	
4.5		9.5		14.5		19.5		24.5	

- Plot your data on the chart below, using as much of the chart's space as possible
- Label the axes, including units
- Draw a best fit line to indicate the relationship of your data (DO NOT connect the dots!)

