Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Intervention 1.3 BC

States of Matter: Solids, Liquids, and Gases

Cut the pictures from “pictures to cut and paste” and paste them on this page.

|  |  |  |
| --- | --- | --- |
| Solids | Liquids | Gases |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Heating Curve of Water**

The diagram below is a plot of temperature vs. time. It represents the heating of what is initially ice at -10oC at a near constant rate of heat transfer.



1. a)What phase or phases are present during segment (1) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What phase change, if any, is taking place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a)What phase or phases are present during segment (2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What phase change, if any, is taking place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a)What phase or phases are present during segment (3) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What phase change, if any, is taking place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a)What phase or phases are present during segment (4) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What phase change, if any, is taking place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. a)What phase or phases are present during segment (5) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) What phase change, if any, is taking place? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pictures to cut and paste:



REMOVE HEAT ENERGY

CONDENSATION

REMOVE HEAT ENERGY

BOILING/EVAPORATION

ADD HEAT ENERGY

ADD HEAT ENERGY

MELTING

FREEZING

Molecules move around slowly

Molecules cannot move Molecules vibrate in place

Molecules move around freely

Molecules are close together

Molecules are widely separated

Molecules are **very** close together

Pictures to cut and paste:



REMOVE HEAT ENERGY

CONDENSATION

REMOVE HEAT ENERGY

BOILING/EVAPORATION

ADD HEAT ENERGY

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