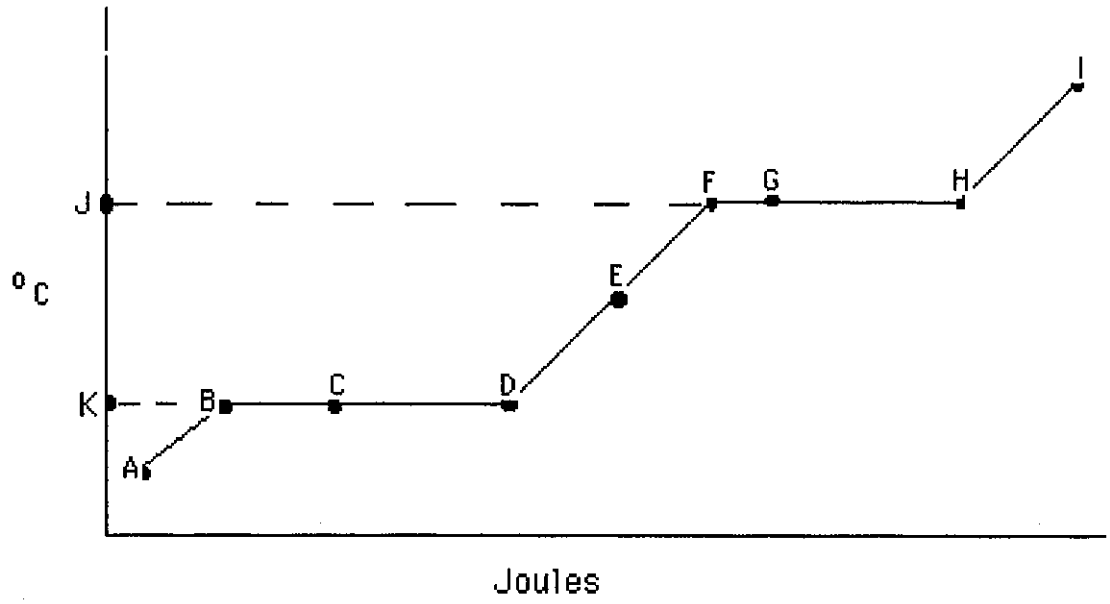
WORKSHEET 18 Name _____
last first



1 From the figure above answer the following questions:

a. Identify by letter the freezing point (__) and the boiling point (___)

b. Circle the following points where the substance is entirely a liquid A C E G

c. Circle the following points where the substance is partly gas and partially liquid B C E G I

d. What type of bond (forces) are being broken between points C-->D if the substance is water

_____

Use the these conversion factors for the following problems, when needed:

$H_{fusion} = \frac{335\ J}{g}$ $H_{vap} = \frac{2.26\ kJ}{g}$

Specific heat of ice = $\frac{2.10\ J}{g\ °C}$

Specific heat of water = $\frac{4.18\ J}{g\ °C}$

Specific heat of steam = $\frac{2.0\ J}{g\ °C}$

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2 . How many kilojoles are required to warm 65 kilograms of water from 20°C to 35°C?

Answer _____

3. How many joules are needed to change 7.25 g of ice at 0.0°Cto liquid water at 50.0°C

Answer _____

4 . 5.00 grams of ice at 0.0°C are heated to 90.0 °C. How many joules must be added to cause this change?

Answer _____

5 . How many joules must be added to 50.0 grams of ice at -10°C to melt and raise the temperature to 99°C

Answer _____

6 . How many joules are released when 5.55 g of steam at 100°C is condensed and cooled to 10.0°C

Answer _____

7 . To what temperature will liquid be raised when 2050 joules are added to 4.00 grams of ice at 0.0°C?

Answer _____