Name: _____ Grade: _____ Date:_____

Heat & Temperature

1. The diagrams below show two beakers **A** and **B** containing the same amount of water at different temperatures.

A

B

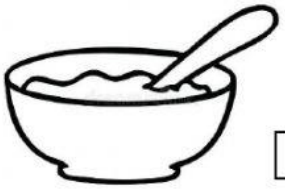
How are the molecules in beaker B different from the molecules in beaker A?

a. The molecules in B have more energy and move slower than A.
b. The molecules in B have more energy and move faster than those in A.
c. The molecules in B have the same energy and speed as those in A.
d. The molecules in B have less energy and move faster than those in A.

2. Heat will always pass from one object to another if the objects have different
   a. Temperatures
   b. Masses
   c. Volume
   d. Surface area

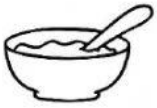
3. Look at the diagrams below and **tick** the one of the pair that has the most energy in it. Explain your answers.

(a) Large bowl of soup at 30°C.



☐

Small bowl of soup at 30°C.



☐

_____
_____
_____

(b) Small pan of soup at 80°C.

☐

same size pan of soup at 50°C.

☐

_____
_____
_____

4. Using the words "heat" and "temperature", explain why a hot cup of coffee gets cool when it is left on a table.

_____
_____
_____