

## Answers

1. Why does water's high specific heat make it a good coolant for car radiators?

Water can absorb a lot of heat before it begins to get hot.

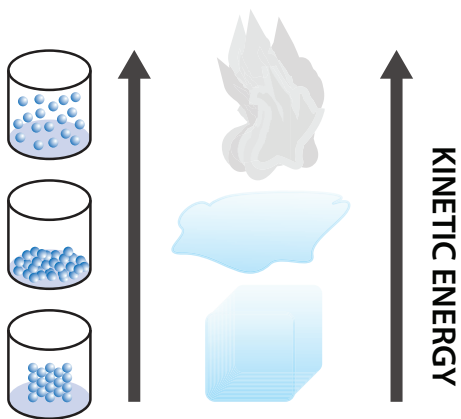
2. Which state of matter has the most kinetic energy? the least kinetic energy?

The gaseous state has the most kinetic energy and the solid state has the least kinetic energy.

3. How does heat affect water and its state of matter?

The greater the heat, the more the molecules move. When there is a little heat, the molecules move a little — liquid. When there is a lot of heat, there is a lot of molecular movement — gas.

4. What is the picture below showing? Please explain.



The picture is showing that the more heat energy added to a system/substance, the more the molecules move, or the greater the kinetic energy.

5. Fill in the definitions of the vocabulary words.

<b>Vocabulary</b>	
<b>specific heat</b>	the amount of energy required to change the temperature of a substance
<b>kinetic energy</b>	energy of motion
<b>coolant</b>	a liquid or gas that removes heat from a substance