Heat is absorbed when solids melt
Get a small container of chopped ice and find its temperature with a thermometer. Place the container over a flame and observe the temperature until all the ice is melted. When did the temperature begin to rise? Why did it not rise for some time? What became of this heat energy?

Melting by pressure and refreezing
When you apply pressure to ice you lower the freezing point. This is why skates move so easily over ice. Hold an ice cube or a piece of broken ice in each hand. Press them together over a piece of paper. Can you make water come from the ice with pressure? Push two ice cubes together forcibly and then release the pressure. Try to separate the ice cubes.

The water refreezes when you release the pressure, holding the ice cubes solid.