The faster molecules take up more space, and so the hot liquid becomes less dense.

As the water cools, its molecules shrink, and so it occupies less volume and becomes more dense.

The denser water falls down the outside of the flask because more heated water is coming up to replace it.

The less dense water rises up to the surface, and as it does so, starts to cool down.

As the water heats up, its molecules expand and so it becomes less dense.

The bunsen starts to heat the water near the bottom of the round-bottomed flask.

After a while, the water near the surface becomes hotter because heat rises.

The water near the bottom of the flask heats up, meaning that the molecules are moving faster.

As it cools, the molecules slow down, taking up less space and so the liquid becomes more dense.

The cycle continues and a **convection current** is set up.