

HEATING AND COOLING AIR B

Part 5. Explain what happens at the particle level when air is heated and cooled.

- Imagine that you could see the air particles in the bottle.
- Explain what happens to the particles when the air is heated and cooled.
- Use drawings and labels if they will help.

When air is heated, the kinetic energy of the particles increases. The particles fly faster and hit harder. This pushes the particles farther apart, causing the mass of air to increase in volume, or expand. When air is cooled, the kinetic energy of particles goes down, particles move closer together, and the volume of air contracts.