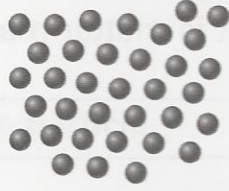
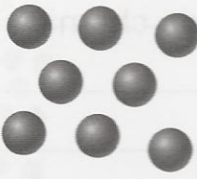
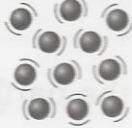
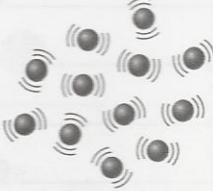



Table 1 The Particle Theory

Main idea	Illustration
1. All matter is made up of tiny particles.	
2. Particles have empty spaces between them.	
3. Even though you cannot see them, particles are moving randomly all the time.	
4. Particles move faster and spread farther apart when they are heated.	
5. Particles attract each other, so they tend to stay together rather than fly apart.	

You can use the particle theory to explain many things you see. Think about what happens in the following example.



You place a drop of food colouring in a cup of water without stirring. The food colouring and particles of water mix together. Why?

Solution: The particle theory states that particles are moving all the time. The particles of food colouring and the particles of water move around. This causes the particles to mix together, even without stirring (Figure 4).

Figure 4 Particles move and bump into each other all the time.