## Answers to Section Review page 45

$$
\begin{aligned}
& \text { 7. a. } 373 \mathrm{~K} \\
& \text { b. } 1058 \mathrm{~K} \\
& \text { c. } 273 \mathrm{~K} \\
& \text { d. } 236 \mathrm{~K}
\end{aligned}
$$

8. a. $0^{\circ} \mathrm{C}$
b. $927^{\circ} \mathrm{C}$
c. $-273^{\circ} \mathrm{C}$
d. $-173^{\circ} \mathrm{C}$
9. Breaking an egg is a physical change because the chemical nature of the egg has not been affected.
10. Cooking an egg is an example of a chemical change because the chemical properties of the egg are changed by the transfer of energy as heat.
11. Energy is transferred as heat from the hand, which is at a higher temperature, to the snowball, which is at a lower temperature.
12. Reducing the kinetic energy of particles to zero is impossible.
13. The temperature of the substance will not increase if it is undergoing a change of state.
