

**18** A ball drops onto a horizontal surface and bounces elastically.

What happens to the kinetic energy of the ball during the very short time that it is in contact with the surface?

- A** Most of the kinetic energy is lost as heat and sound energy.
- B** The kinetic energy decreases to zero and then returns to its original value.
- C** The kinetic energy remains constant because it is an elastic collision.
- D** The kinetic energy remains constant in magnitude but changes direction.

**19** When the water in a pond freezes, it changes from a liquid to a solid. When this occurs, it changes volume and exchanges energy with the surroundings.

Which row is correct?

	change of volume	energy exchange
<b>A</b>	contracts	gives out energy to the surroundings
<b>B</b>	contracts	takes in energy from the surroundings
<b>C</b>	expands	gives out energy to the surroundings
<b>D</b>	expands	takes in energy from the surroundings

**20** Which process does **not** require energy to be supplied?

- A** boiling
- B** evaporation
- C** freezing
- D** melting

**Space for working**