

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
A	contracts	gives out energy to the surroundings
B	contracts	takes in energy from the surroundings
C	expands	gives out energy to the surroundings
D	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

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