

- 12** A 50 g piece of wood placed next to a 100 g steel bar is at the same temperature as the steel bar. The steel bar is in thermal equilibrium with a 5.0 g piece of paper placed some distance away from it. A student who touched the three objects remarked that the steel bar feels colder to touch than the other two objects.

Which statement is always correct?

- A** The piece of wood and steel bar have the same amount of internal energy.
- B** There is no exchange of thermal energy between the piece of wood and the paper.
- C** The steel bar is at a lower temperature than the other two objects.
- D** There is no net exchange of thermal energy between the paper and the steel bar.