

Name: _____

Date: _____

MCHS Honors Physics 2013-2014

Temperature and Heat Energy Worksheet

1. In terms of thermal energy, why does a bottle of soda left in the sun have a higher temperature than one left in an ice chest?
2. Which has more thermal energy, a 5-kg bowling ball that has been resting on a hot driveway for 4 hours on a 35°C day, or the same bowling ball rolling down a lane in an air-conditioned bowling alley? Explain.
3. Why does your hand feel cool if you spill some alcohol on it?
4. Explain why poor conductors of heat are good insulators of heat.
5. Why do many cooking pots and pans have wooden or plastic handles?
6. For many years, many fast food restaurants served their hot sandwiches in plastic foam containers instead of wrapping them in less expensive paper. Why was plastic foam used?
7. Why is winter clothing generally darker in color than summer clothing?
8. Explain why wearing two or three layers of clothing helps to keep you warmer in cold weather than does one thick layer.
9. Explain why the inside of an automobile left sitting in direct sunlight for several hours becomes very warm.
10. Explain why the rug on your floor feels warmer than the tile in the same room.