Heat Energy and Bicycling Comprehension Questions

1. What do cars, bicycles, and many other types of transportation do when they are in motion?

A. They take one form of energy and convert it into another form of energy.
B. They clog the streets of New York City and create lots of traffic.
C. They cause people to sweat because of the energy it takes to use such transportation.
D. They make people spend more time outside and increase their body temperatures.

2. What does the author describe in this passage?

A. The author describes different types of t-shirts.
B. The author describes reasons for moving to New York City.
C. The author describes two types of energy.
D. The author describes the dangers of riding in taxis.

3. A person on a bicycle is breathing hard, sweating, and pedaling fast. Based on this evidence, the person is probably

A. moving very slowly
B. exerting a lot of energy
C. exerting a little energy
D. exerting no energy

4. When you step from a hot street into an air-conditioned room, you feel cooler. Why does this change occur?

A. heat is moving from a cold area (the room) to a hotter area (the street)
B. heat leaves your body as it moves from a warm area (your body) to a colder area (the air in the room)
C. the motion energy used to walk into the room lowers your body temperature
D. the motion energy used to walk into the room raises your body temperature

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5. What is this passage mainly about?

A. forward motion and backward motion
B. cars and air conditioning
C. 100-degree heat, t-shirts, and sweatshirts
D. motion energy and heat energy

6. Read the following sentences:

> "a person who is wearing a sweatshirt in summer is likely to get much hotter than a person who is wearing a t-shirt. This is because the sweatshirt **insulates** the person, trapping heat inside."

What does the word **insulates** mean in the sentence above?

A. protects the person by keeping the person cool
B. protects the person by preventing the loss of heat
C. traps the person
D. makes the person uncomfortable

7. Choose the answer that best completes the sentence below.

A person's body temperature rises _____ he or she rides a bicycle.

A. although
B. before
C. then
D. when

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8. According to the passage, how does the human body get rid of heat energy to keep itself cool when the temperature is high?

9. According to the passage, where does the energy that propels a bicycle forward come from?

10. Why can a bicycle be considered a device that can convert energy?