Heat Energy Comprehension Questions

1. What is Earth's heat source?

A. heat lamps
B. dark colored objects
C. the sun
D. metal objects

2. What does the text list and describe?

A. ways hot air is transferred into and through Earth's atmosphere
B. ways heat is transferred into and through Earth's atmosphere
C. ways radiation is transferred into and through Earth's atmosphere
D. ways visible light is transferred into and through Earth's atmosphere

3. Read this sentence from the text:

"Most of the solar radiation is absorbed by the atmosphere and much of what reaches the earth's surface is radiated back into the atmosphere to become heat energy."

What can you conclude about heat energy?

A. Most of the sun's energy is used to make heat energy.
B. A small amount of the sun's energy is used to make heat energy.
C. All of the sun's energy is used to make heat energy.
D. None of the sun's energy is used to make heat energy.

4. Read these sentences from the text.

Convection is the transfer of heat energy in a fluid. . . .

Air in the atmosphere acts as a fluid. The sun's radiation strikes the ground, thus warming the rocks. As the rock's temperature rises due to conduction, heat energy is released into the atmosphere, forming a bubble of air which is warmer than the surrounding air. This bubble of air rises into the atmosphere.

What inference can you make about radiation, conduction, and convection?

A. Radiation, conduction, and convection work together to transfer heat energy in Earth's atmosphere.
B. Radiation, conduction, and convection are not important in transferring heat energy in Earth's atmosphere.
C. Radiation, conduction, and convection transfer heat energy from Earth's atmosphere to the sun.
D. Radiation, conduction, and convection work together to transfer heat energy in the sun.

5. What is the main idea of this text?

A. The source of heat for Earth is the sun, and some of the sun's energy is used to make heat energy.
B. White light is when the eye views all the different light frequencies at the same time.
C. The transfer of heat energy from one substance to another or within a substance is called conduction.
D. Heat energy is transferred into and through Earth's atmosphere by radiation, conduction, and convection.