

Heat and Temperature Practice Quiz Topic 6 - Transferring Energy

1. In a hot tub, your body gains thermal energy from the hot water. This thermal energy is then transferred throughout the inside your body by each of your living cells. It can be dangerous to stay in the tub for a long period of time, because your ...

cells will get so large they will burst, losing all of their nutrients to the water

normal body temperature begins to be transferred to the water

cells will shrink because of osmosis

blood vessels enlarge, blood pressure goes down, and your heart rate increases

2. Radiation is the transfer of energy without any movement of matter. This type of energy transfer is called ...

radiative transduction

radioactive transfer

electrospectrum radiation

electromagnetic radiation

3. A certain type of thermal energy transfer moves the energy by direct collisions, particle-to-particle. This type of thermal energy transfer is called ...

concurrent

conductive

conduit

convective

4. The transfer of energy in a fluid is very different. The heated particles become less dense and so they rise, with the colder, more dense particles rushing in to take their place. This type of thermal energy transfer creates a ...

conduction current

convection current

radiative pathway

concurrent current

5. Energy systems have five things in common - input energy, energy transfer, output energy, waste energy and ...

collisions between particles

energy source

energy equilibrium

concentrated flow

Answers

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- In a hot tub, your body gains thermal energy from the hot water. This thermal energy is then transferred throughout the inside your body by each of your living cells. It can be dangerous to stay in the tub for a long period of time, because your ...

cells will get so large they will burst, losing all of their nutrients to the water

normal body temperature begins to be transferred to the water

blood vessels enlarge, blood pressure goes down, and your heart rate increases (Text p. 220) This is the medical reason why you shouldn't stay in a hot tub too long

cells will shrink because of osmosis
- Radiation is the transfer of energy without any movement of matter. This type of energy transfer is called ...

radiative transduction

radioactive transfer

electrospectrum radiation

electromagnetic radiation (Text p. 226) EMR is electro-magnetic radiation
- A certain type of thermal energy transfer moves the energy by direct collisions, particle-to-particle. This type of thermal energy transfer is called ...

concurrent

conductive (Text p. 229) Figures 3.24A, 3.24B, 3.24C

conduit

convective

4. The transfer of energy in a fluid is very different. The heated particles become less dense and so they rise, with the colder, more dense particles rushing in to take their place. This type of thermal energy transfer creates a ...

convection current (Text p. 230) Figure 3.25

conduction current

radiative pathway

concurrent current

5. Energy systems have five things in common - input energy, energy transfer, output energy, waste energy and ...

collisions between particles

energy source (Text p. 232) There must be an energy source to provide the system with energy

energy equilibrium

concentrated flow